

UNIVERSITY OF HULL

Hull University Business School

**Enhancing the Social Ecological
Framework: a Social Marketing
Solution.**

**Thesis submitted for the Degree of Doctor of Philosophy
in the University of Hull**

by

Alan Shaw

May 2016

ABSTRACT

Purpose – Social marketing has been criticised for mainly focusing on the individual and not the wider environmental impacts. Collins, Tapp and Pressley (2010) began the process of tackling this issue by introducing the Social Ecological Framework (SEF). The SEF is based on Bronfenbrenner's (1977) Ecological Theory, but it utilises his first iteration. This thesis has enhanced the framework by incorporating Bronfenbrenner's (2005) Person-Process-Context-Time Model.

Design/methodology/approach – The study utilises a mixed methods approach with a single case study: examining why individuals living with diabetes chose to attend (or not) a structured education course in England. It examines the attitudes of the patients, healthcare professionals and administrators of the NHS.

Findings – The research identified that there was a large disparity in the types of services provided by the various PCTs. Many patients were unaware of the courses and that they should have been offered a place: the key driver, which dictated the types of services provided by the NHS was money. The patient's decision to attend or not was influenced by a variety of factors that were correlated to wider environmental issues, or more specifically Bronfenbrenner's PPCT model.

Research implications/limitations – Utilising Bronfenbrenner's PPCT model within the SEF has positive implications to the process. Researchers and practitioners will now have a new way of addressing social marketing issues. The study's scope was limited to a 'health' social marketing review, further research will be required to confirm its relevance across the wider social marketing domain.

Practical implications – Diabetes is a growing chronic condition that accounts for approximately 11% of many nation health service providers' budgets. Diabetes structured education is proven to empower patients and reduce costs but many of these patients are failing to engage with the process. The enhanced SEF that this research is providing may solve the issue.

Originality/value – The study provides an example of social marketers having to deal with multiple complex behaviour changes. It also addresses a concern that is continually raised by the social marketing fraternity: researchers tend to focus on the individual.

Keywords – Social marketing, Social Ecological Framework, Ecological Theory, Bio-Ecological Theory, Bronfenbrenner, PPCT Model (Person, Process, Context and Time), diabetes and diabetes structured education.

Table of Contents

ABSTRACT	i
Table of Contents	i
List of tables	ix
List of figures	xi
Acknowledgements	xv
Abbreviations	xvii
Chapter 1: Introduction	1
1.1 Background.	1
1.2 The Research Problem.	2
1.3 The Research Approach and Philosophy.	3
1.4 Research Overview.....	4
1.5 Research Significance: Theory and Knowledge.	5
1.6 Research Significance: Practice and Impact.	6
1.7 Thesis overview.	7
Chapter 2: Social Marketing	9
2.1 Literature Review Preface.....	9
2.2 An Introduction To Social Marketing.	10
2.3 Social Marketing Definition.	11
2.4 Social Marketing Subcategories.....	14
2.4.1 The Safety Category of Social Marketing.	15
2.4.2 Environment.....	15
2.4.3 Social.	16
2.4.4 Health.	16
2.5 Social Marketing Benchmark Criteria.....	18
2.6 The Social Marketing Continuum.	23
2.6.1 Macro Social Marketing.....	24
2.6.2 Upstream Social Marketing.	25
2.6.3 Critical Social Marketing	26
2.7 The Complexities of Social Marketing.	27

2.8 Health Education	28
2.9 Health Promotion.....	31
2.10 Theory of Exchange.	32
2.11 The Commercial Implications of Social Marketing.	35
2.12 Relationship Marketing.	36
2.13 Conclusion.	38
Chapter 3: The Ecology Theory.....	41
3.1 Introduction.	41
3.2 The Common Theories Associated With Social Marketing.....	41
3.2.1 Theory Of Reasoned Action.	42
3.2.2 Social Cognitive Theory	44
3.2.3 Health Belief Model.....	47
3.2.4 Theory of Planned Behaviour.	50
3.2.5 Protection Motivation Theory.....	52
3.2.6 The Transtheoretical Model.	54
3.3 Ecological Theories.....	57
3.3.1 Bronfenbrenner’s Original Nested Ecological Model.	60
3.4 A Review of the Adaptions to Bronfenbrenner’s Work.....	62
3.5 Bronfenbrenner’s Ecological Theory.....	65
3.6 Bronfenbrenner’s Ecological Theory: a historical perspective....	67
3.7 The Person-Process-Context-Time (PPCT) Model.....	72
3.7.1 The Person.	73
3.7.2 The Process.....	74
3.7.3 The Context.	75
3.7.4 The Time.....	76
3.8 Social Ecological Framework.	77
3.9 Conclusion.	78
Chapter 4: Diabetes and Structured Health Education.....	81
4.1 Introduction	81
4.2 What is Diabetes?.....	81
4.3 The Global Impact of Diabetes.....	83
4.4 Diabetes in the UK.....	84

4.5	Diabetes Structured Education.....	84
4.6	Conclusion.....	87
Chapter 5: Objectives, Philosophy, Methodology and Design.....		89
5.1	Research Objectives.....	89
5.1.1	Questions.....	89
5.1.2	Research Contribution.....	90
5.2	The Research Philosophy.....	90
5.3	Methodology.....	94
5.4	Customer Value Chain Analysis.....	99
5.5	Research Methods.....	102
5.5.1	Ethics Approval.....	102
5.5.2	Phase 1a: Interviewing Patients.....	104
5.5.3	Phase 1b: The Diabetes Health Education Course Census.....	115
5.5.4	Phase 1c: Policy Review.....	116
5.5.5	Phase 2: Compare and relate the data to inform the next Phase.....	118
5.5.6	Phase 3: Interview HCPs and Administrators.....	121
5.5.7	Phase 4: Analyse the data obtained from the HCP interviews.....	122
5.5.8	Phase 5: Data interpretation and development of the solution.....	122
5.6	The Final Process.....	129
Chapter 6: Results And Findings.....		131
6.1	Introduction.....	131
6.2	Policy Analysis.....	132
6.2.1	NICE Guidelines.....	132
6.2.2	Quality and Outcomes Framework.....	133
6.3	Diabetes Structured Education in NHS England.....	134
6.3.1	Type I Diabetes.....	134

6.3.2	Type II Diabetes Structured Education.....	136
6.4	Participant Survey & Interviews.	138
6.4.1	The Person.	145
6.4.2	The Process.....	146
6.4.3	The Micro System.	148
6.4.4	The Meso System.	153
6.4.5	The Exo System.....	156
6.4.6	The Macro System.	157
6.4.7	Time.	160
6.4.8	Other Findings.	163
6.5	Patient Participant Summary.	164
6.6	NHS Practitioner Interviews.....	164
6.6.1	Why a PCT opted to deliver a specific course(s).....	165
6.6.2	Deciding on the numbers to deliver within a year.	166
6.6.3	Why they thought they were successful or unsuccessful.	167
6.6.4	Why they choose to monitor or not monitor numbers.	168
6.6.5	Their thoughts on what could be done better.	169
6.6.6	Who were the key stakeholders in the process?.....	169
6.7	The Product Definition Assessment.....	174
6.7.1	The required behaviour change.	174
6.7.2	Objective of the product.....	175
6.7.3	Product theory.....	175
6.7.4	The required strategic alignment.....	175
6.7.5	The targeted customers.....	176
6.7.6	Identifying customer's needs.....	176
6.7.7	Addressing the competition.....	176
6.7.8	The exchange requirement.....	176

6.7.9	The product positioning.	177
6.7.10	The Priority Design Criteria.....	177
6.7.11	The product channel requirements.....	177
6.7.12	The regulatory requirements.	177
6.8	Final Summary.....	177
Chapter 7: A Critical Review Of The Research Findings.....		179
7.1	Introduction.	179
7.2	Background to the discussions.	179
7.3	The Person.	181
7.3.1	Dependent relatives.....	184
7.3.2	People at work.....	185
7.3.3	Ethnic minorities.	185
7.3.4	Awareness and availability.....	185
7.4	The Process (Proximal Process).....	186
7.4.1	Product.	187
7.4.2	Price.....	188
7.4.3	Promotion.	188
7.4.4	Place.	189
7.5	Context.....	190
7.5.1	The Microsystem.	190
7.5.2	The Mesosystem.....	192
7.5.3	The Exo System.....	194
7.5.4	The Macrosystem.	199
7.6	Time.....	203
7.7	The Customer Value Chain.	205
7.8	Product Definition Assessment.	209
7.8.1	The required behaviour change.	209
7.8.2	Objective of the product.....	210
7.8.3	The product positioning.	210

7.8.4	Product theory.....	210
7.8.5	The required strategic alignment.....	211
7.8.6	The targeted customers.....	211
7.8.7	Identifying customer’s needs.....	212
7.8.8	Addressing the competition.....	212
7.8.9	The exchange requirement.....	212
7.8.10	The Priority Design Criteria.....	213
7.8.11	The product channel requirements.....	213
7.8.12	The regulatory requirements.....	213
7.9	Enhancing the SEF.....	214
7.10	Time.....	225
7.11	The Enhanced SEF.....	226
7.12	Case Study Example.....	233
7.12.1	The Behaviour Change.....	234
7.12.2	The Targeted Audience.....	234
7.12.3	Campaign Definition Assessment.....	235
7.12.4	Key Stakeholders.....	236
7.12.5	The Microsystem Review.....	237
7.12.6	The Mesosystem Review.....	237
7.12.7	The Exosystem Review.....	238
7.12.8	The Macrosystem Review.....	239
7.12.9	Time and Social Marketing.....	239
7.13	Theoretical Contribution.....	240
7.14	Conclusion.....	241
Chapter 8:	Limitations And Implications Of The Research.....	243
8.1	Introduction.....	243
8.2	Social Marketing.....	244
8.3	Not Focusing on the Ultimate Behaviour Change.....	245
8.4	Sampling the Black Minority Ethnic (BME) Community.....	246

8.5	Sampling the Long Term Unemployed Community.....	247
8.6	The Use of a Case Study.	247
8.7	Sampling Methods.....	248
8.8	Primary Care Trusts (PCTs)	251
8.9	The Interview Process.....	253
8.10	Transcribing Process	255
8.11	Problems with Freedom of Information Requests	255
8.12	Attitudes towards Diabetes Structured Education Courses.	257
8.13	Regions of England.....	257
8.14	The Use of Anonymous Responses.....	258
8.15	Short URLs.....	259
8.16	The research time frame.....	261
8.17	The Use of a Structural Model.....	261
8.18	Conclusion.....	262
Chapter 9: Conclusion and Recommendations.....		263
9.1	Overview.....	263
9.2	Objectives Revisited.....	264
9.3	Theoretical Contribution.....	267
9.4	Methodological Contributions and the Strengths of the Approach. 267	
9.5	Limitations of the Approach.....	268
9.6	Recommendations for Research.....	269
9.7	Recommendation for the Practitioner.....	270
9.8	Final Summary.....	270

List of References	273
Appendix 1 Research Questionnaire Codebook.....	313
Appendix 2 Interview Schedule: Participants.	315
Appendix 3 Example Of A Patient Participant Transcription.....	316
Appendix 4 Census Questionnaire.....	320
Appendix 5 Diabetes Centres In England.....	322
Appendix 6 Participant Information Sheet and Consent Forms... 	323
Appendix 7 Interview Schedule: HCPs.	330
Appendix 8 Census Results.....	331
Appendix 9 Completed Content Analysis Code Book.	335
Appendix 10 Collins Tapp and Pressley’s (2010) SEF Scenarios..	337

List of tables

TABLE 2.1 THE SEARCH TERMS USED FOR THE TWO LITERATURE REVIEWS.	9
TABLE 2.2 THE DATABASES AND LIBRARIES USED FOR THE SEARCHES.	9
TABLE 2.3 COMPARISONS BETWEEN THE DEFINITIONS OF HEALTH EDUCATION AND SOCIAL MARKETING.	29
TABLE 3.1 THE CORE ELEMENTS OF MASTERY MODELLING (OZER & BANDURA, 1990)	46
TABLE 3.2 THE ESSENTIAL PRINCIPLES OF THE THEORY OF ECOLOGY (ADAPTED FROM SCHEINER & WILLIG (2008))	59
TABLE 4.1: COMPARISONS BETWEEN THE DIABETES HEALTH EDUCATION AND ANDREASEN'S (2002) BENCHMARK CRITERIA.	85
TABLE 5.1: DATA PROFILE REQUIREMENTS FOR THE STUDY.	98
TABLE 5.2: THE RESEARCH HYPOTHESIS USED FOR THIS STUDY..	101
TABLE 5.3 THE PURPOSIVE SAMPLING PROFILE.	107
TABLE 5.4: TRANSCRIBING CONVENTIONS.	111
TABLE 6.1: STRUCTURED EDUCATION STANDARDS (AS IDENTIFIED IN THE POLICY ANALYSIS)	133
TABLE 6.2: TYPE I DELIVERY PROFILE, APRIL 2011 TO MARCH 2012.	134
TABLE 6.3: TYPE I STRUCTURED EDUCATION TYPE.	134
TABLE 6.4: THE RANGE OF TYPE I STRUCTURED EDUCATION COURSES.	135
TABLE 6.5: TYPE II DELIVERY PROFILE APRIL 2011 TO MARCH 2012.	136
TABLE 6.6: TYPE II STRUCTURED EDUCATION TYPE	137
TABLE 6.7: THE RANGE OF TYPE II STRUCTURED EDUCATION COURSES.	137
TABLE 6.8: PROFILE OF INDIVIDUALS WHO TOOK PART IN THE ONLINE QUESTIONNAIRE	139
TABLE 6.9 SUMMARY PROFILE OF INDIVIDUALS WHO TOOK PART IN ONLINE QUESTIONNAIRE.	139
TABLE 6.10: PROFILE OF INDIVIDUALS WHO AGREED TO BE INTERVIEWED.	139
TABLE 6.11: SUMMARY PROFILE OF INDIVIDUALS WHO AGREED TO BE INTERVIEWED.	139
TABLE 6.12: FINAL PROFILE OF INDIVIDUALS TO INTERVIEW.	140
TABLE 6.13: FINAL SUMMARY PROFILE OF PEOPLE TO BE INTERVIEWED.	140
TABLE 6.14: SUMMARY OF THE QUANTITATIVE ANALYSIS FROM THE PATIENT QUESTIONNAIRE.	141
TABLE 6.15: A SUMMARY OF CONTENT ANALYSIS RESULTS.	143
TABLE 6.16: A SUMMARY OF THE AXIAL AND CORE THEMES IDENTIFIED.	144
TABLE 6.17: INFLUENCE LEVELS OF STAKEHOLDER'S ABILITY TO ENCOURAGE PATIENTS TO ATTEND STRUCTURED EDUCATION PROGRAMMES.	170
TABLE 7.1: A SUMMARY OF THE MAIN FINDINGS FROM THE QUANTITATIVE ANALYSIS FROM THE PATIENT QUESTIONNAIRE.	180
TABLE 7.2: STAKEHOLDER INFLUENCE.	205
TABLE 7.3: THE BEHAVIOUR REQUIREMENTS.	215
TABLE 7.4: IDENTIFYING THE TARGETED INDIVIDUALS.	215
TABLE 7.5: CAMPAIGN DEFINITION ASSESSMENT (CDA).	217
TABLE 7.6: STAKEHOLDER'S IMPACT.	219
TABLE 7.7: FACTORS TO ESTABLISH IN THE MICROSYSTEM.	221

TABLE 7.8: FACTORS TO ESTABLISH IN THE MESOSYSTEM.....	223
TABLE 7.9: FACTORS TO ESTABLISH IN THE EXOSYSTEM.....	224
TABLE 7.10: FACTORS TO ESTABLISH IN THE MACROSYSTEM.....	224
TABLE 7.11: THE ENHANCED SEF PROCESS.	229
TABLE 8.1: THE TRANSCRIBING CONVENTIONS USED (DREW, 2005).....	255

List of figures

FIGURE 2.1 FRIEDEN'S (2010) HEALTH IMPACT PYRAMID.	30
FIGURE 3.1 THEORY OF REASONED ACTION (ADAPTED FROM AJZEN & MADDEN,1986)	43
FIGURE 3.2 THE SOCIAL COGNITIVE THEORY (ADAPTED FROM BANDURA (1986))	45
FIGURE 3.3 A GRAPHICAL REPRESENTATION OF THE HEALTH BELIEF MODEL (ROSENSTOCK, 1974)	49
FIGURE 3.4 THE THEORY OF PLANNED BEHAVIOUR (ADAPTED FROM AJZEN (1991))	50
FIGURE 3.5 A GRAPHICAL REPRESENTATION OF THE PROTECTION MOTIVATION THEORY (MADUX & ROGERS, 1983).....	52
FIGURE 3.6 THE NESTED LEVELS OF THE ECOLOGY THEORY (ADAPTED FROM BRONFENBRENNER (1977)).....	68
FIGURE 3.7 THE SEF'S THEORETICAL SCENARIOS (COLLINS, TAPP & PRESSLEY, 2010, P1185).....	77
FIGURE 4.1 AGE-STANDARDIZED PREVALENCE OF DIABETES 2008	83
FIGURE 5.1: THE CONVERGENT PARALLEL DESIGN (ADAPTED FROM CRESWELL & CLARK, 2011).....	95
FIGURE 5.2: THE EXPLANATORY SEQUENTIAL DESIGN (ADAPTED FROM CRESWELL & CLARK, 2011)	95
FIGURE 5.3: THE EXPLORATORY SEQUENTIAL DESIGN (ADAPTED FROM CRESWELL & CLARK, 2011)	96
FIGURE 5.4: THE TRANSFORMATIVE DESIGN (ADAPTED FROM CRESWELL & CLARK, 2011)	96
FIGURE 5.5: THE MULTIPHASE DESIGN (ADAPTED FROM CRESWELL & CLARK, 2011)	96
FIGURE 5.6: THE EMBEDDED DESIGN (ADAPTED FROM CRESWELL & CLARK, 2011)	96
FIGURE 5.7: THE STUDY'S METHODOLOGICAL SUMMARY.	97
FIGURE 5.8 THE PRINTED ADVERT IN DIABETES UK'S BALANCE MAGAZINE	104
FIGURE 5.9 THE FIRST PAGE OF THE ONLINE SURVEY TOOL.	105
FIGURE 5.10 THE SECOND PAGE OF THE ONLINE SURVEY TOOL: GAINING INFORMED CONSENT.....	106
FIGURE 5.11; THE SAMPLE SECTORS ACROSS ENGLAND.	108
FIGURE 5.12: THE CONTENT ANALYSIS PROCESS (ADAPTED FROM ELO & KYNGÄS, 2008)	112
FIGURE 5.13: CONTENT ANALYSIS CODE BOOK TEMPLATE.....	113
FIGURE 5.14: THE POLICY ANALYSIS PROCESS (HOGWOOD & GUNN, 1984).	117
FIGURE 5.15 THE ORIGINAL CVCA DESIGN (ADAPTED FROM ISHII, (2001)).	124
FIGURE 5.16: A SCHEMATIC VIEW OF THE SEF.....	128
FIGURE 6.3: A SUMMARY OF THE FINDINGS RELATED TO THE PERSON.	148
FIGURE 6.2: MICRO SUMMARY FINDINGS.	152
FIGURE 6.3: PROPOSITION 1, NEW FINDINGS FROM THE STUDY.	153
FIGURE 6.3: MESO SUMMARY FINDINGS AND PROPOSITION.	155
FIGURE 6.4: EXO SUMMARY FINDINGS.	157
FIGURE 6.5: MACRO SUMMARY PROPOSITION 1.	159
FIGURE 6.6: MACRO SUMMARY PROPOSITION 2.	160
FIGURE 6.8: STAKEHOLDER IMPACT ON DIABETES STRUCTURED EDUCATION.	170
FIGURE 7.1: DIABETES STRUCTURED EDUCATION COURSE STATISTIC (ADAPTED FROM HSCIC, 2015).....	195
FIGURE 7.2: STAKEHOLDER IMPACT ON DIABETES STRUCTURED EDUCATION.	205

FIGURE 7.3 THE SEF MODEL (COLLIN'S TAPP & PRESSLEY, 2010).....	214
FIGURE 7.4: AN ADAPTION OF ROTHSCHILD'S (1999) APPLICATIONS OF EDUCATION, MARKETING AND LAW.	222
FIGURE 7.5: THE ENHANCED CONCEPTUAL MODEL FOR THE SEF.	227
FIGURE 8.1: A COMPARISON OF PCT AND CCG POPULATION SIZE - RAW DATA (NAYLOR, 2012)	253
FIGURE 8.2: A COMPARISON OF PCT AND CCG POPULATION SIZE - STANDARDISED DATA (NAYLOR, 2012).....	253
FIGURE 8.3: THE STRATEGIC HEALTH AUTHORITIES FOR NHS ENGLAND (2011 - 2012)	257
FIGURE 8.4: THE ADVERT USED TO DIRECT PARTICIPANTS TO THE SURVEY.	260

Acknowledgements.

I would like to thank Diabetes UK for their support on this research project: it would have not been possible without them granting access to their membership database.

I would also like to thank Deborah North (Marketing Manager) and Joan Smith (Quality Manager) from the Expert Patients Programme Community Interest Company for their guidance and input relating to patient Self-Management courses in the UK and the structure of NHS England.

Dr. Trudi Deaken, the CEO of XPERT Health was also an invaluable source of medical information.

The doctoral journey can be a long and lonely one, particularly for a part-time student, with this in mind I would like to thank Sheffield Hallam Business School for giving me a contract as a Research Fellow, access to a number of mentors and embedding myself in a research environment greatly enhanced my focus on the project.

I must thank my company, Strategic Planet for financing the degree and my wife for being so patient.

Finally, my sincere thanks goes to Dr Stephan Dahl for his support, guidance and direction. I very much appreciate the effort he has afforded me and I look forward to working with him on a more professional basis in the future.

Abbreviations

BME	Black minority and ethnic (communities)
CCG	Clinical Commissioning Group
CDA	Campaign Definition Assessment
CVC	Customer Value Chain
CVCA	Customer Value Chain Analysis
DAFNE	Dose Adjustment For Normal Eating
DESMOND	Diabetes Education and Self-Management for On-going and Newly Diagnosed
DfX	Design for X
DoH	Department of Health
DSN	Diabetic Specialist Nurse
DUK	Diabetes UK
HBM	Health Belief Model
HCP	Healthcare Professional
IDF	International Diabetes Federation
NDPB	Non Departmental Public Body
NFP	Not For Profit
NGO	Non-governmental Organisation
NHS	National Health Service
NICE	National Institute for Health and Care Excellence
NSF	National Service Framework
PCO	Primary Care Organisation
PCT	Primary Care Trust
PDA	Product Definition Assessment
PMT	Protection Motivation Theory
PPCT	Process Person Context Time

QOF	Quality Outcomes Framework
SCT	Social Cognitive Theory
SEF	Social Ecological Framework
SOCT	Social Observation Learning Theory
TMA	Total Marketing Approach
TPA	Theory of Planned Behaviour
TRA	Theory of Reasoned Action
TTM	Transtheoretical Model
WHO	World Health Organisation

Chapter 1: Introduction.

1.1 Background.

Social marketing has become an important way of using marketing principles to encourage positive behaviours amongst individuals and the society of which they are apart (Andreasen, 2002; Hastings, 2007 and Lefebvre, 2012). It creates a framework that integrates social influencing theories with the marketing concepts (Wallack, 1990). As a practitioner of many years in the field of social marketing I have struggled to apply these numerous frameworks to the 'real world' scenarios I faced. Some of these limitations are also shared by a number of scholars from the social marketing fraternity, the most prominent being that it tended to focus on the individual and not the wider environmental effects (Collins, Tapp & Pressley, 2010; Helmig & Thaler, 2010; Rothschild, 1999, Wallack 1984 and Wallack et al., 1993). The re-emergence of this concern, as demonstrated through the time line of the articles published, confirms that the issue is a major gap to the theory and knowledge of social marketing.

Social marketers have begun to challenge the issue by investigating the impact of incorporating ecological models to their work. There are many ecological models and theories that are being used in a variety of disciplines. Its premise is based on the fact that different aspects of the ecological environment can influence or deter behaviours in different ways. Collins, Tapp & Pressley (2010) are a small group of social marketing researchers who have started using the ecology theory to reshape our understanding of the domain. They have taken and adapted the work of Bronfenbrenner's (1974, 1976, 1977, 1979) ecology theory and produced the Social Ecological Framework (SEF), which is specific for social marketing. The development of the SEF was based on reviewing three case studies (ibid). The first focused on the 'reckless driving behaviours of young males', the second on the British people's propensity to cycle and the final one was on the identification of programmes that could increase detection of lung cancer in young men living in deprived areas (ibid).

1.2 The Research Problem.

Collins, Tapp & Pressley (2010) have stated that their framework is only in a preliminary stage of development and will require other researchers to test and apply the model against a wider variety of social marketing case studies. I have taken this challenge and have focused on an activity that is very different to the profiles used by Collins, Tapp & Pressley. My research compares two different groups with a similar problem: encouraging positive health behaviour changes in those individuals (adults only) living in England with either Type I or Type II diabetes. The profile was unique because it allowed me to test one of Bronfenbrenner's (2005) later propositions (this had not been considered by Collins, Tapp & Pressley (2010)) in that genetic differences between individuals will influence behaviour change.

It should also be noted that the SEF was based on Bronfenbrenner's (1977) earlier iteration of the Ecology Theory: i.e., it focused on the four nested systems known as the Macro, Exo, Meso and Micro systems (also known as the 'context' (Bronfenbrenner, 2005)). I established this as the gap to the theory and knowledge of social marketing and went on to demonstrate how the SEF was enhanced using Bronfenbrenner's (2005) 'Process, Person, Context and Time' model of the Ecology Theory: his final proposal for the theory, albeit the 'time' element was inconclusive.

From a practical point of view my thesis identified that the quality and management of diabetes structured health education courses varied by PCT. It demonstrated that there were issues in the social marketing process: most were not inclusive¹, the primary reason being the limited budgets each department had to spend. There was a tendency for PCTs to ignore the National programmes and develop their own: making the process inefficient. Despite this, those participants interviewed who were living with diabetes could see the benefits of attending a course. There was a section of the interviewed healthcare professional who were ambivalent about the programme, they felt that medical therapies were better. From these findings I have argued that structured education courses should be centralised. This

¹ The definition of inclusive in this context refers to healthcare providers limiting their provisions to certain groups: not every element of society would have access to it.

would reduce costs, increase efficiency and create wider participation amongst those individuals and their families living with diabetes.

1.3 The Research Approach and Philosophy.

As a researcher, I operate from a pragmatist's paradigm, which means there is no specific ontological or epistemological approach, that I should adhere to (Rorty, 1991): pragmatists adopt what is necessary to get the job done (Guba & Lincoln, 1982). In this instance, my work has focused on a pluralist ontology, i.e., one in which I see more than one way to frame our existence (Flick, 2014) and a constructivist epistemology. The experience I have gained from working in this area has helped shaped my approach in tackling the problem. The thesis has been written by adapting and integrating the work of Schon's (1983) and Ryan (2011). Schon's (1983) work is based on the 'reflective practitioner': this is someone who uses 'reflection in action'² and 'reflection on action'. I epitomised the concepts of 'reflection in action' whilst working for health education providers (The Expert Patients Programme Community Interest Company) and 'reflection on action' by reviewing my experience post-employment with the Expert Patients Programme. Ryan (2011) uses a similar premise: she gets the researcher to 'Recount' the experience or events, then 'Describe' the critical incidents, 'Explaining' the strategies in place (not the critical incidents), then ending on a 'Discussion', hypothesising possible reasons for the critical incidents identified. Another important feature of Ryan's (2011) work is the presentation of the work in the first person.

My research has utilised a mixed method approach with a single case study that concentrated on how individuals living with diabetes in England (Type I and II) engaged with structured health education courses. Later it will be demonstrated that these courses were part of a social marketing programme and that they did facilitate the required behaviour change of the individuals.

² Schon's (1983) defines 'reflection in action' as someone who learns by doing and 'reflection on action' as someone who learns from doing.

1.4 Research Overview.

My research will demonstrate how to enhance the social ecology framework using Bronfenbrenner's (1993, 2005) Process, Person, Context and Time model. I have worked with Diabetes UK, using their membership database as the sample frame. It included individuals who had been diagnosed with Type I and II diabetes. More specifically the focus was on those adults living in England and used the diabetes structured education course, which may or may not have been offered to the said person.

The research was split into five phases; the first phase had three distinct elements to it, starting with a census of the 152 Primary Care Trusts (PCTs) in England, focusing on their performance in delivering diabetes structured education during the period of 1st April 2012 and 31st March 2013. It is appreciated that I had embarked on my research during a period of major change, in that the PCTs were being disbanded and new Clinical Commissioning Groups (CCGs) were being created. The object was not to look specifically at these organisations but to investigate the wider environmental impact of the said courses. The second element of the first phase was a Policy Analysis of the National Health Service's (NHS) practices and procedures relating to the management of diabetes in England. The final element of the first phase was the quantitative and qualitative data collection from the members of Diabetes UK. It started with a survey to test a number of hypotheses; the survey was also used to identify individuals to take part in a semi-structured interview. A purposive sampling method was used to target the said participants for the interviews: an adaption of the content analysis and thematic analysis processes was used to review the data.

Phase two of the research was the evaluation of the data obtained in phase one. It was also used to confirm the propositions of Bronfenbrenner (2005) and the importance of the Bio-ecology Theory to social marketing. It additionally had a secondary objective of developing a semi structured interview schedule for the Healthcare professionals (HCPs) and administration staff of NHS England: I wanted to understand why some PCTs were better than others in providing structured education courses and if the NHS staff were empathetic to the patient's concerns.

Phase three focused on interviewing those HCPs and admin staff that managed diabetes care in England, a purposive structure was used to select the various incumbents, alternating between those that successfully delivered diabetes structured education and those that did not. A theoretical saturation process was used to establish the cut off point for the interviews.

Phase four was the analysis of the data collected from the HCP and administrator interviews. In reality this was done concurrently with phase three: after each interview the data was transcribed and processed using NVIVO with a thematic analysis approach. The core theme identified was 'budgets'. It appeared that finances were the main driver for influencing decisions within the departments.

The final phase was an iterative one, comparing the results of my research with the SEF and developing options of how the framework could be enhanced. Details of this can be seen in the results and findings chapter.

1.5 Research Significance: Theory and Knowledge.

As I have already stated, social marketing tends to focus on the individual (Collins, Tapp & Pressley, 2010; Helmig & Thaler, 2010; Rothschild, 1999, Wallack 1984 and Wallack et al., 1993). My research will help overcome this issue by demonstrating how wider ecology models can be used within the domain. The real significance of this research is in its enhancement of the SEF, it answers the call of Collins, Tapp and Pressley (2010) to build on their framework by demonstrating its use with other case studies. My research goes a stage further by enhancing the concept with Bronfenbrenner's (2005) PPCT model: the final iteration of the Bio-ecology Theory. To put this development into context it is worth highlighting a quote from Bronfenbrenner, (1979, p. xiii):

"Species Homo sapiens appears to be unique in its capacity to adapt to, tolerate, and especially to create the ecologies in which it lives and grows. Seen in different contexts, human nature, which I had once thought of as a singular noun, turns out to be plural and pluralistic; for different environments produce discernible differences, not only across but within societies, in talent, temperament, human relations, and particularly in the ways in which each culture and subculture brings up the next generation.

The process and product of making human beings human clearly varies by place and time. Viewed in historical as well as cross-cultural perspective, this diversity suggests the possibility of ecologies as yet untried that hold a potential for human natures yet unseen, perhaps possessed of a wiser blend of power and compassion than has thus far been manifested”.

My research also demonstrates how multiple and /or complex behaviour change requirements can be managed by social marketers: these were issues that were raised by Dibb & Carrigan (2013), Evans (2006) and Snyder & Hamilton (2002).

1.6 Research Significance: Practice and Impact.

As I was undertaking a doctoral thesis, my primary goal was to add value and significance to theory and knowledge. It should also be noted that research should have an impact value: the term ‘impact’ is defined by the Economic and Social Research Council (ESRC) as research that provides a demonstrable outcome to society and the economy (ESRC, n.d.). It is hoped that, with the support of Diabetes UK, my findings will be able to influence policy and practice within the NHS. This, in terms of the ESRC, should provide real ‘impact value’.

To put the study into context, the World Health Organisation (WHO) have identified that there are 347 million people living with diabetes (WHO, 2014). WHO (2012) have also estimated that the prevalence of diabetes (Type I and Type II) averages to be just under 10% of the global population and is consistent across all countries and it will become the seventh leading causes of deaths in by 2030. The International Diabetes Federation (IDF) has calculated that diabetes (both Type I and Type II) accounted for 11% of the global healthcare expenditure in 2014 (IDF, 2014). IDF have also estimated that diabetes causes (and will continue to be) a large economic burden for all national healthcare providers. In the UK, diabetes affects over 3.2 million people (DoH, 2012). There are an estimated further 630,000 individuals who are unaware that they have the condition (ibid). England accounts for 2.7 million of these individuals with approximately 10% being Type I diabetes (NHS England, 2014). Diabetes costed NHS England just under £10 billion in direct

expenditure during the financial year of 2010/2011, approximately 10% of the total health resource expenditure (NHS England, 2014). One way of tackling the issue is to introduce self-care, which includes structured education as an important part of the process (DoH & DUK, 2005). This is why I have selected diabetes structured education as my case study for the research.

1.7 Thesis overview.

After this introduction the thesis will review the literature associated with social marketing: it will look at the social marketing history and how the domain has developed. The review also identifies some of the concerns that other scholars have raised and how my research could negate them. There is an important comparison between social marketing, health education and health promotion: it demonstrates that there are many similarities between the domains and how social marketing could possibly differentiate itself. The next chapter reviews the literature associated with the ecology theory. There is a comparison between other consumer behaviour models to demonstrate why the ecology theory will be important to social marketing. It ends with a detail review of the Social Ecology Framework, which provides the core theoretical lens for this thesis.

Chapter four is an overview of diabetes and structured health education. This chapter is not strictly a literature review; it has been included to provide the reader with some context about the case study. It also demonstrates why the topic is so important to the global society.

Chapter five covers the objectives, philosophy, methodology and design of the study. It goes through in detail how each element of the investigation was completed: giving other researcher the opportunity of replicating the study.

Chapter six provides the reader with the results and findings. I would argue that the study utilised a complex mixed methods approach, so rather than presenting the findings as an output for each phase I have combined elements of my results and listed them in the context of the SEF and PPCT models. I believed that this was an easier way for a reader to visualise my discoveries.

The results and the research process were then critically reviewed in chapter seven. It is here where the details of how the SEF was enhanced are discussed;

the new model is also explained in detail with examples of how it can be practically applied.

The penultimate chapter lists the limitations and implications of the research: even though it is based on the health category of social marketing I believe that it is relevant to the whole domain of social marketing and can easily be applied to the three other categories. The final chapter is a summary of the thesis with recommendations on how to take it forward.

Chapter 2: Social Marketing.

2.1 Literature Review Preface.

The next two chapters will give the reader an insight into the literature reviews associated with the fields of social marketing and the ecology theory. This preface will explain the process used to identify the relevant content: it utilises an adapted version of the framework used by Perese, Bellringer & Abbott (2005). It is made up of four phases, the first phase establishes the key search terms to be used for the two literature reviews, see Table 2.1:

Table 2.1 The search terms used for the two literature reviews.

Social Marketing Search Terms	Ecology Theory Search Terms
Social Marketing Health Promotion Health Education	Ecology Theory Bronfenbrenner Social Ecology.

The second phase identifies the appropriate databases to carry out the searches. A variety of platforms and libraries were used to do this, see Table 2.2:

Table 2.2 The databases and libraries used for the searches.

Search Databases and Sources
Business Source Premier Emerald Back files Emerald Business, Management & Economics Book Series Emerald Journals Only 5 journals subscribed to in this database Emerald Management First Emerald Management Plus ERIC (Educational Resource Information Centre) (via EBSCO) ERIC (Educational Resource Information Centre) (via ProQuest) PsycARTICLES PsycINFO Google Scholar Libraries including University of Hull, Sheffield University, Sheffield Hallam University, The Chartered Institute of Marketing and the British Library. Gray literature.

The concept of Citation searching (Higgins & Green, 2008) was used to expand the search: this provided direction to books, book chapters and other potential useful searches that did not fit the key search terms criteria.

Phase three reviewed, logged and documented relevant aspects of the articles, books, journals etc. This was done using the Refworks referencing application (Refworks, n.d.), my initial review had over 650 separate references. NVivo was also used in this phase to tag various sentences of the articles and books into discrete nodes, then applying the same principles of thematic analysis (Braun & Clarke, 2006) I was able to develop a framework for the literature review.

The final phase was the development and production of the literature review. We shall now review the results of this phase.

2.2 An Introduction To Social Marketing.

There are many who believe that concept of social marketing first came to prominence in the early fifties when Wiebe (1951-52) introduced the notion of using commercial promotional techniques to address social issues (Andreasen, 2002; Dibb & Carrigan, 2013; Fox & Kotler, 1980; Kotler & Zaltman, 1971; Ling et al., 1992 and Stead et al., 2007). Today these same scholars and others have taken Wiebe's (1951-52) concept of social marketing and developed a more structured framework, they include Andreasen (1994, 2002, 2003), Bagozzi (1975, 1978), Dibb (2013), Gordon (2012, 2013), Hastings (2007, 2012), Kotler & Levy (1969), Kotler, Reberto & Lee (2002), Kotler & Zaltman (1971), Stead et al. (2007) and Wymer (2010, 2011). The problem with Wiebe's (1951-52) original concept was that it focused on the promotional element of the marketing mix, which as we now know is not the only domain of social marketing (Andreasen, 2002 and Kotler and Zaltman, 1971).

This chapter will expand on this introduction, giving the reader a detail insight into the domain of social marketing. It starts by first reviewing the social marketing definition, it then introduces the reader to the social marketing subcategories³, using examples to explain the key differences. There is a section on the 'social marketing benchmark criteria' (an important aspect of

³ I have found no formal definitions of what I have termed subcategories. It has been included to merely demonstrate the depth of this subject.

social marketing), which covers the pros and cons of each benchmark. The chapter then introduces the reader to three different aspects of social marketing (which should not be confused with the social marketing subcategories): this will focus on macro social marketing, upstream social marketing and critical social marketing. These sections demonstrate how the domain has expanded. The chapter also introduces the reader to the domains of 'health education' and 'health promotion': this is because I believe that there is a contextual dilemma for the discipline of social marketing, the boundaries for these subjects are blurred and there are no clear demarcation lines between the three areas. The chapter then moves into the new conceptual age of social marketing where funding, complexities and differentiators are considered. It ends by summarising the key points, linking it specifically to my doctoral research.

2.3 Social Marketing Definition.

It should be noted that in the early days, Kotler and Levy's (1969) proposal on the new⁴ social marketing concept was seen as controversial: Luck (1969 and 1974) had argued that it was an anarchic challenge to the traditions of marketing. Even today there is still contention as to the true meaning of social marketing (Andresen, 2012; Dibb, 2014; Hastings, 2012 and Spotswood et al., 2012). This contention is not helped by the lack of clarity in its definition. Kotler and Zaltman (1971, p5) started the process by stating, "*social marketing is the design, implementation and control of programmes calculated to influence the acceptability of social ideas and involving considerations of product planning, pricing, communication, distribution, and marketing research*". Andreasen (2002) took issue with this, arguing that the use of the term 'acceptability of social ideas' was misleading: he believes that the behaviour change is a must and this change should be seen as the 'bottom line' for social marketing.

Andreasen (1994, p110) went on to propose his own definition: "*social marketing is the adaptation of commercial marketing technologies to programs designed to influence the voluntary behaviour of target audiences to*

⁴ My reference to the term 'new' refers to its introduction in the late sixties and early seventies.

improve their personal welfare and that of the society of which they are a part". A key tenet of this definition is the need for the behaviour change to be voluntary. The discourse of social marketing has moved on and there is now a debate surrounding the need to include involuntary behaviours (Spotswood et al., 2012 and Thaler & Sunstein, 2011) using nudge techniques ("*any aspect of the choice architecture that alters people's behaviour in a predictable way without forbidding any options or significantly changing their economic incentives*" (Thaler & Sunstein, 2008, p6)). French (2011) and Spotswood et al. (2012) have taken this even further suggesting that social marketers should not limit themselves to passive inducements of voluntary behaviour but to also tackle those individuals who are conscious objectors: French (2011) proposing the use of 'shove' or 'smack' techniques which are seen as dictatorial moves to engineer the behaviour change. To me, these 'shove' or 'smack' techniques are important developments in social marketing as it helps differentiate the domain from other disciplines, which, as I will demonstrate later, is a major cause of confusion for practitioners and academics from outside the social marketing arena.

The definitions do not stop here, there are many others including that from Lazer and Kelley (1973 p ix) who state "*social marketing is the application of marketing knowledge, techniques and theories to enhance social goals as well as economic ends. It is also focused on the social consequence of marketing policies, decisions and activities*". Lazer and Kelley's (1973) definition is more holistic (i.e., it's not just about the individual), despite this, the holistic or environmental approach is one that is lacking in the social marketing sphere (Collins, Tapp & Pressley, 2010; Helmig & Thaler, 2010; Rothschild, 1999, Wallack 1984 and Wallack et al., 1993). Andreasen (2003) disagrees with the economic premise of the definition; he sees 'the social consequence of marketing policies, decisions and activities' as only a link to commercial marketing. This means that there should be no direct relation to the economic implications (i.e., it is the behaviour that is the bottom line and not money). Interestingly there is little or no (none that I can find)⁵ criticism of the 'economic' aspect of the definition. It is difficult to interpret this aspect (economic) of the definition because it has not been made clear what

⁵ As at 20th January 2015.

'economic' actually means, although MacFadyen, Stead, Hastings (1999) have stated that social marketing should not benefit the organisation that is doing the social marketing (one could assume this means economically). This 'commercial' factor is reinforced by Bartels' (1976) definition, which states that social marketing uses marketing principles to promote and facilitate the exchange of values, non-economic, and non-profit social organizations. This makes it clear that profit should not be a goal of social marketing programmes. It could be argued that many 'health social marketing' campaigns have an underlying benefit to society by reducing the burden of spend on the fragile healthcare budgets that exist in many national healthcare systems, this is supported by Mitton, Dionne & Donaldson (2014). There is a clear distinction between an organisation making a profit and the impact on a society's healthcare budget but they both refer to economics. This is important because it could be a means of differentiating social marketing from health promotion and health education, I shall discuss this in more detail later in this chapter.

Wallack (1984, p683) provided the domain with this definition, "*social marketing uses marketing principles to promote socially beneficial goods. They may be ideas, causes, behaviours, or perhaps specific services. This is facilitated by the provision of knowledge and product availability*". This definition is at odds with about half of the social marketing fraternity: see Peattie & Peattie's (2003) review of the online debate by the social marketing list server in 2002 where "*some [social marketers]⁶ saw the desired behaviour as the end 'product' of the campaign, while others concentrated on the tools of the campaign*". The work of Dibb (2013), French (2011) and Spotswood et al. (2012) is now encouraging social marketers to take a more pragmatic approach to the domain: i.e., there is no longer a need to restrict the definition of the social marketing product as just the behaviour change. This principle is important for my research as I have used a specific service (product), which was diabetes structured education, as the catalyst for change.

The United Kingdom's National Social Marketing Centre [NSMC] (French and Blair-Stevens, 2007, p31) use the following definition: "*Social Marketing is the systematic application of marketing techniques alongside other concepts and*

⁶ I have added social marketers in brackets just for clarity.

theories with the goal of achieving specific behavioural goals for a social good". This definition creates an ethical issue in relation to the clarification of the term 'social good'. Who has the right to determine what is socially good? Spotswood et al. (2012) provide examples of religious extremist at one end of the spectrum and anti-immunisation groups at the other. Spotswood et al.'s (2012) solution is to get social marketers to provide evidence for their respective programmes and to use democracy as the tool to demonstrate the worth of this 'good'.

There are even more variations to the definition (Bagozzi, 1975; Donovan & Henley, 2003; Kotler, Roberto & Lee, 2002; McDermott, Stead & Hastings, 2005 and Opel et al., 2009). This proliferation cannot help the cause, but the domain can be forgiven when the two largest associations related to marketing (the American Marketing Association and the Chartered Institute of Marketing) produce definitions of marketing, which are at odds with each other (AMA, 2003 and CIM, n.d.). The complexity does not end here because as we will see in the next section there are an additional four subcategories that need considering.

2.4 Social Marketing Subcategories.

The term social marketing is not strictly affiliated to a single domain, as discussed above, it has a number of subcategories: safety, environmental, social and health (Kotler & Lee, 2002), although many scholars and practitioners tend to restrict their social marketing work to health concerns only (Chapman et al., 2005). A question I have tried to answer during this literature review was, how should these subcategories be managed? Aside from Kotler & Lee (2002), there is little evidence to distinguish any differences between the four, which is compounded by Rothschild (1999) who has an additional set of subcategories: education, marketing and law (these will be discussed latter in this chapter). With this in mind and taking into consideration that social marketing is built on using commercial marketing technologies (Andreasen, 1994), it is worth considering the wider aspect of marketing category management. The concept of category marketing is already a common term used in the commercial arena: it was the Lever Brothers and Procter & Gamble who pioneered it in the early nineties (Marsden 2006). The notion of using it for social marketing should not be alien, although some may

argue that it should be considered as part of the segmentation process (Andreason, 1994). Unlike commercial marketing where the same process can be used for any category (as the selling of a product or service should be very similar). This is best explained with examples.

2.4.1 The Safety Category of Social Marketing.

The “Clunk Click” Campaign (AA, 2010) was designed to encourage individuals to wear car seat belts. It had a simple message and was easy to assimilate. Unfortunately, the uptake was still poor and it required the government to intervene and introduce new legislations on seat belt use.

The Health and Safety executive have implemented a number of campaigns to encourage individuals to adopt safe working practices. Many of these initiatives are complex and require training to ensure complete understanding of the problem. One such example is UV tanning: there is list of requirements that suppliers have to adhere to. This includes highlighting the dangers to the general public (HSE, 2011).

2.4.2 Environment.

Recycle for London (Recyclenowpartners, 2003) was a campaign designed to encourage Londoners to recycle their waste. A simple concept to understand and one, which has been facilitated by the provision of tools (recycling bins) and a change in working practice by the local authority (new collection times for said recycling bins).

The Kyoto Protocol is a campaign designed to reduce greenhouse gas (GHG) emissions across the world and is linked to the United Nations Framework Convention on Climate Change (UNFCCC, 1998). This is arguably a more complicated programme and requires behaviour changes from individuals, companies and government. Despite the clear benefits it can provide to the global society no agreement has been reached on how to move forward.

2.4.3 Social.

The Jubilee 2000 campaign (Lofgren, Lumley and O'Boyle 2008) was designed to get the world's richest countries to cancel the debts of the world's poorest countries. It utilised demonstrations, petitions, lobby groups and even pop concerts to raise awareness. In this example it was the "masses" that had mobilised to change Government behaviour.

NEST (National Employment Savings Trust) is a new pension scheme, which has been introduced to help the British Nation save for retirement, it affects every employer in the UK (HM R+C, 2012). It has been designed to help more people save for retirement but because it is a financial product with Financial Services Authority (FSA) legislative requirements a variety of training programmes are needed to update the various stakeholders.

2.4.4 Health.

The "Eat 5 A Day" campaign (NHS Choice, 2011) was designed to encourage individuals to consume five portions of fruit each day to increase their health and well-being. The message was simple with a focus of changing individual behaviours.

The "Change 4 Life" campaign (NHS, n.d.) was designed to encourage individuals to look at their whole life style. It tackles, healthy eating, drinking and smoking and increasing physical activities. Unlike the "Eat 5 A Day" case, it is a more complicated campaign covering many issues. It also includes individuals and families alike.

In all of the examples above the underlying theme is the improvement of the welfare of individuals and society without providing financial benefit to the organisation doing the campaigning (although as discussed earlier there will be financial benefits to Governmental bodies in the long term). As such, they can all be classed as social marketing programmes, I would also contend that these examples have a very different range of complexities with different drivers and stakeholders associated within each category. This means that my research can only have a general application to other health social marketing

programmes: I cannot assume a direct link to the other subcategories without first completing further research.

This also means that the theory of social marketing needs to be more specific about the processes and procedures that marketers should employ, it should learn from the commercial sector and be compartmentalised by the categories highlighted above. As an example, there are clear demarcation lines for B2C, B2B, international and direct marketers: these same principles could be used to streamline social marketing.

Another problem with social marketing is its inability to easily establish what constitutes a social marketing programme⁷. McDermott (2000), Hill (2001), Maibach, Rothschild and Novelli (2002) all stated that most healthcare professionals think that social marketing is just about promotion. Andreasen (1995) on the other hand identified that policymakers and social marketing managers see social marketing as an element of educational messaging. Andreasen (1995) argues that these policymakers and social marketing managers are wrong because the core concept of social marketing is based on exchange (details to be covered later in this chapter). This may be a reason why it is difficult to create and justify new social marketing programmes (see Pfeiffer, 2004). Directors, managers, healthcare professionals and even civil servants need better guidance and direction on when and how to use social marketing initiatives. It needs to become engrained in their thinking and not taken as an afterthought. This, I would argue, is why my research is so important.

In the commercial sector the solution is simple: a business proposition uses marketing as a management process to understand customer's needs, company strengths, market opportunities and the ideal market segment to operate in (CIM, n.d.). This means that marketers are the facilitators of business processes and not the drivers: a concept which was first introduced by Culliton in 1948 (see Borden, 1964). Social marketing seems to have a different stance: take for instance Andreason (2006) who developed the Social Marketing Benchmark Criteria. This benchmark criterion has been cited in

⁷ For the purpose of this thesis programmes will constitute the whole social marketing activity associated with a required behaviour change. It could be made up of a number of campaigns (i.e., programmes are the parent and campaigns are the child of the process).

many journals as a means of identifying social marketing best practice. It was latter adapted by French (2009) and is also promoted by the National Social Marketing Centre (NSMC, n.d.). On inspection it is not clear as to the role of the social marketer, it infers that these marketers are the drivers of the process. I believe that this is not the case. To qualify this statement let me guide you through each element of the benchmark criteria.

2.5 Social Marketing Benchmark Criteria.

This section will focus on the social marketing benchmark criteria, which is a means of testing if a programme or campaign can legitimately be identified as one relating to social marketing (Andreason, 2002). The first criterion is 'behaviour', Andreason's (2002), French (2009) and the National Social Marketing Centre (2006) all state that the social marketing intervention must seek to change behaviour and it must have specific measurable behavioural objectives. Behavioural changing initiatives are complex, psychologists and social scientists have spent many years developing models and theories to support the change process, it could be argued that such initiatives (only health related ones) are in fact clinical therapies⁸: this premise is support by the National Institute for Health and Care Excellence's (NICE) guidelines on Behaviour change (NICE, 2007). These guidelines stipulate the need for clinical evidence in the evaluation (ibid): a process that many social marketers would be unable to do (in my opinion) if they were tasked with the development of a social marketing programme. It would be better to state that social marketers provide a 'supporting' or 'facilitating' role in the behaviour change process. This would be in line with commercial marketing where marketers support businesses to grow sales (Kotler & Levy 1969; Webster 1992 and Vargo & Lusch 2004).

The second criterion, 'theory' builds on the behavioural aspects highlighted above. French (2009) and the National Social Marketing Centre (NSMC, 2006) believe that social marketers should use behavioural theories to support the development of interventions. This proposition is supported by NICE's (2007)

⁸ As directed by NICE (2007), health related behaviour changes require clinical evidence to support the efficacy. This means that social marketing programmes should not be instigated without clinical evidence to support it.

guidelines on Behaviour change. This in no way detracts from French's (2009) and the National Social Marketing Centre's (2006) suggestion that theory should be added to the benchmark criteria. It may be more effective and efficient for the marketers to support clinical specialists in identifying the market opportunity through specific research.

The third criterion, 'customer orientation', is where social marketers are expected to fully understand why the targeted individual chooses to behave the way they do (Andreason 2002; Grier & Bryant 2004; Varcoe 2004 and Luca & Suggs 2010). This is a technique that all traditional / commercial marketers use (Kelley 1992: Dickinson & Ginter, 1987 and Conduit & Mavondo; 2001). The tendency is to limit the focus on one stakeholder group (i.e., the individual in question): this premise is supported by Collins, Tapp & Pressley (2010), Helmig & Thaler (2010), Rothschild (1999), Wallack (1984) and Wallack et al. (1993) who all believe that too many social marketers only focus on the individual. In the health sector there are a number of key stakeholders who are also a customer, they are commissioners and healthcare professionals (Shaw, 2011). Without support from these commissioners there will be no budget to finance the campaign, without support from the healthcare professionals there will be restricted access to patients.

The fourth criterion, 'segmentation', is similar to its use in traditional marketing, social marketers are encouraged to adopt different approaches for the various customer segments (Andreasen 2002: Rothschild 1999: Kotler, Roberto & Lee, 2002 and Grier & Bryant: 2004), as mentioned above there is a lack of literature that involves commissioners and healthcare professionals in the process (a vital stakeholder segment in health social marketing): a view shared by Collins, Tapp and Pressley (2010, p1193) who have encouraged researchers and practitioners to "*create a kind of 'value chain' of delivery in partnership with other specialisms... and would mark a move away from an individualistic, citizen-as-consumer view of the world*". It is my belief that, from a practitioner's point of view, this limitation is a potential problem because if social marketers do not engage with this wider stakeholder group then there are unlikely to gain funding, which would mean that the projects they are considering will never get off the ground.

There is another concern related to segmentation: many academics (Bagozzi, 1978; Andreasen, 1994, 2002; Rothschild, 1999; Kotler Roberto & Lee, 2002 and Gordon, 2011) have stated that the process of social marketing is just about the marketing of behaviour change. These scholars considered the behaviour change to be the primary product of social marketing. In most cases, behaviour change requirements are very explicit: 'eat more fruit and vegetables', 'don't drink and drive', 'turn off the light switch when leaving an empty room' are just a small subset of the examples available. If there were only one product (i.e., the stated behaviour change required) then why are marketers segmenting the customer base? As an example, the campaign to save energy could be a behaviour change targeting individuals to switch off lights when they leave an empty room: this would be the product, the individual would have two choices, to either turn the light switch off or leave it on when they left the room: there is no reasonable criteria for segregating the market place. Accepting that the segmentation could be based on the actual behaviour itself, I would argue that it might be better to have supporting products to facilitate the process, i.e., movement sensitive switches or timers etc, which supports the process for switching off lights. To put this argument into context, in the commercial sector marketers would developed a range of products which can then be positioned to match the required market segment (Smith, 1956; Dickson & Ginter, 1987 and Barat, 2010). We see this used extensively in the retail trade: supermarkets have a range of 'value' branded products and a range of 'premium' branded products for the different segments they have going through their stores (Laforet, 2014).

The fifth criterion, 'insight', is not on Andreason's (2002) original list. It is defined as:

"Actionable insights - pieces of understanding that will lead intervention development:

- *A deep understanding of what moves and motivates the target audience, including who and what influence the targeted behaviour*
- *Insight is generated from customer orientation work (Benchmark 2)*

- *Identifies emotional barriers (such as fear of testing positive for a disease) as well as physical barriers (such as service opening hours)*
- *Uses insight to develop an attractive exchange and suitable methods mix (Benchmarks 5 and 8)"*

(NSMC, n.d., p2)

It could be argued that it is a duplicate meaning of the ‘customer orientation’ criterion. Those of you who are familiar with the work of Kotler and Keller (2006) will see that their definition of insight also reflects the definition of the benchmark criteria’s customer orientation. The ‘insight’ is meant to drive product development, if this is the case why is it being used as a benchmark criterion. It does not necessarily follow that a social marketing campaign has to have ongoing research to classify it as a legitimate social marketing project. I firmly believe that it should be removed from the criteria.

The sixth criterion is ‘exchange’, it reflects the benefits and costs of adopting and maintaining a new behaviour (NSMC, n.d.). Sutton, Balch & Lefebvre (1995), Donovan & Henley (2003) and Andreason (2002) all believe that this is the core part of the influencing strategy. In commercial terms it can be considered as the pricing strategy. Like the concept of exchange in social marketing, price can have a significant impact on influencing people to purchase items (Monroe, 1976). Despite this there still remains the confusion about what social marketers are promoting (see Peattie and Peattie’s (2003) discussion of the social marketing product). Is it the promotion of the final objective or the products and services needed to achieve that goal? Without this being resolved it is difficult for marketers to know where to focus their efforts. For the purposes of this research I have taken the view that social marketing can have an associated product or service, which is attributed to it.

The seventh criterion, ‘competition’, is seen as those behaviours that challenge or conflict with the preferred behaviour of the targeted customer (Andreasen, 2002; Rothschild, 1999; Kotler Roberto & Lee, 2002 and Gordon, 2011), i.e., watching television could be the competition to exercising. As a practitioner of many years in the field of social marketing I would like to add to this perspective and emphasize that the traditional meaning of competition also

holds true amongst social marketing professionals. As an example, social marketers who promote healthy living practices for people with diabetes through self-management programmes need a budget from their respective healthcare provider. They will be competing for this limited resource with other disease and conditions (cancer, heart disease, obesity etc). It is also worth noting that many social marketing campaigns lack any clear brand identity (Evans et al., 2008). This must make it difficult for social marketers to position their products in the eyes of the funders. It could be argued that the use of 'commercial category management' techniques, as discussed earlier, would be an ideal way of resolving this issue as it would focus on the solutions and ideas that satisfy the user's needs, a concept promoted by Basuroy, Mantrala & Walters (2001) in the commercial arena.

The final category, the use of marketing mix, brings together the practices used by traditional marketers. They include, but should not be limited to, the extended range, which has product, price promotion, place, people, process and physical evidence. The concept of the marketing mix is now hotly contested amongst many academics. Lauterborn (1990) argues that the 4Ps are now passé and that marketers should focus on other elements, a premise backed by Shizumu (2003) who extended Lauterborn's (1990) work. One could argue that the work of Lauterborn (1990) and Shizumu (2003) is very similar to the original marketing mix, they had merely reformulated their work using the letter 'C' as such its legitimacy has to be lost as there is no real distinction between it and the 4Ps. Others like Bennet (1997) made an effort in differentiating their model: he proposed developing a two dimensional matrix linking the 5Vs⁹ with the 4Ps. Vignali and Davies (1994) developed a similar framework three years before Bennett, it is called the MIXMAP model.

Let's now return to the classical 4Ps: this framework's ontological assumptions are based on a set of parameters that can be managed to influence the consumer buying process (Constantinides, 2006). Its epistemological assumptions are now built on the fact that it has become a pseudo 'theory' and is utilised by many academics and practitioners (when it was first introduced

⁹ Bennet's (1997) 5Vs relate to elements of the buyer's disposition and 'Value', 'Viability', 'Volume', 'Variety' and 'Virtue'.

there was no evidence to support the proposal). The underlying factor for the 4Ps marketing mix success is:

“It is a simple conceptual framework and is a good pedagogic tool, especially for introductory marketing.”

(Gordon, 2012, p124)

This simplicity is also its downfall (Constantinides, 2006; Schultz, 2001; Davis & Brush, 1997 and Lauterborn, 1990): that is not to say it cannot be advanced, this advancement goes beyond the scope of this research. It is however worth reminding the reader of Czinkota’s (1994) definition of the marketing mix: it is a complex range of elements that are either tangible or intangible, allowing the brand to be distinguished in the market place. Although Czinkota (1994) has not explicitly stated it, one could argue that the complex range of elements referred to by Czinkota (1994) must include a wider ecological perspective, which is what this research is considering.

To sum, the benchmark criteria is essentially a list of conditions that must be considered and implemented when developing social marketing programmes. Like commercial marketing, the social marketer cannot be the ultimate owner of each factor but he/she can facilitate them. Andreasen (2002) does make one caveat, not every criteria needs to be included, more importantly it must not be limited to just advertising and communications. This criterion is also limited to the ‘traditional’¹⁰ elements of social marketing. There are other elements of social marketing (I would term these as the ‘non-traditional’ elements of social marketing), which I would describe as sitting on a continuum that require a different approach, I will now look at this aspect in detail.

2.6 The Social Marketing Continuum.

Earlier in this chapter I reviewed the categories of social marketing (Environment, Health & Safety, Social and Health). They fit into, what I would call, the traditional element of social marketing. As the domain has grown it has become inevitable that concepts relating to social marketing have taken a

¹⁰ By traditional I refer to the work that has been discussed up to this point in the chapter.

differing perspective. There are three diverse views, which will now be considered, they include, macro, upstream, and critical social marketing.

2.6.1 Macro Social Marketing.

Macro social marketing is a process that uses social marketing programmes designed and delivered (usually through third party agencies) by Governments (Domegan, 2008; Kennedy & Parsons, 2012 and Wymer, 2011). It should not be confused with ‘critical’ or ‘upstream’ social marketing (which will be discussed later). Macro social marketing comes into its own when the behaviour change is difficult to achieve (Hoek & Jones, 2011 and Wymer, 2011): in this case legislation is used to enforce the change, an example is the requirement for motorcyclist to use helmets on British roads. Legislation is not the only means a government can use to facilitate the social marketing process. There is the opportunity to change policies, increase taxes or provide funding (Kennedy & Parsons, 2012). Kennedy & Parsons (2012) go on to argue that macro social marketing should be seen as part of the positive social engineering process. Social engineering has a poor reputation, this was driven by detrimental associations with the past (McMahon, 2001, Thompson & Parsons, 2009): an example is the oppressive control of the Soviet citizen (McMahon, 2001). The definition for Social engineering is “*arranging and channelling environmental and social forces to create a high probability that effective social action will occur*” (Alexander and Schmidt, 1996, p1). The utilisation of the environmental and social forces will definitely benefit social marketing: this factor is currently lacking in the social marketing domain (Collins, Tapp & Pressley, 2010; Helmig & Thaler, 2010; Rothschild, 1999 and Wallack et al., 1993).

The use of macro social marketing as a tool to facilitate social engineering (Kennedy & Parsons, 2012) is fine if scholars and practitioners do not restrict it to Domegan’s (2008) original definition of macro social marketing, which is effectively seen as a change at the societal level. This is because governments may not always want to address the behaviour of the whole society, there can be smaller specific segments that need focusing on: a good example is the programme introduced by the UK Government to reduce the number of illegal

immigrants trying to gain access to the UK boarder through the Channel Tunnel. Here the behaviour change is being targeted specifically at the immigrants in Calais¹¹.

Kennedy & Parsons (2012) also believe that macro social marketing is about reducing the effectiveness of traditional marketing techniques that facilitate bad behaviour: they cite smoking as the example. It should be noted that not all behaviour changes being targeted by macro social marketing programmes will have an associated 'bad' product. Recycling, reduce speeding and safe-sex are just some examples where it is the behaviour of the individual that needs changing: there is no commercial product that is facilitating the individual to behave the way they do.

I am off the opinion that macro social marketing creates an element of confusion and I question the need to segregate the discipline into this category. If social marketers consider the definition provided by Kennedy and Parsons (2012), they believe that macro social marketing occurs when governments change policies, increase taxes or provide funding (ibid). It is my experience that most social marketing programmes will have some element of this attributed to it, there should be no need to differentiate between macro and traditional social marketing. I also believe that many social marketing programmes will start at a local level with its marketers working to instil change not only at the individual level but also at a macro aspect: as an example Diabetes UK have a clear mandate to change policies to support individuals living with diabetes (Diabetes UK, 2014). In my mind 'macro-social marketing' should be restricted to those programmes that are supported with legislation only.

2.6.2 Upstream Social Marketing.

Upstream social marketing is *"the adaptation and application of marketing and other approaches, to change the behaviour of decision makers and opinion formers, which alters the structural environment and*

¹¹ To some this may be seen as a contentious example, I merely want to demonstrate an extreme of social marketing specifically around a non-healthcare issue. The UK Government have pledged £12million to tackle the issue; it includes reviewing the traffic flow and communication campaigns (BBC, 2014). In reality the problem is more complicated than the picture I have painted with the need of the French and British Governments (and the rest of the world) to work closer than they have in tackling root causes.

has a resultant positive influence on social issues” (Gordon, 2013, p1525). Its emergence was based on the work of Donovan & Henley (2000), Goldberg (1995) and Hastings & Donovan (2002) who were proposing to build on wider social issues and not just the individuals.

As it stands most of the current research carried out in social marketing can be considered as ‘downstream’ (or traditional as I have classified it in this thesis): where the focus is on the individual (Gordon, 2013). There is even a ‘midstream’ level, which targets communities or schools (ibid). To me this discourse is confusing: the definition of ‘macro social marketing’ is very similar to ‘upstream social marketing’, yet there is no clarification where the demarcation lines are. This concern is shared by Noble, (2006) and Hoek & Jones (2011). To avoid confusion, I propose the following (only for clarity within this thesis) that upstream social marketing is the marketing used to influence the higher bodies to change their minds and macro social marketing is the higher bodies doing the social marketing. Macro social marketing should be limited to legislation changes only because of the reasons discussed earlier, if it were to include these ‘higher bodies’ providing funding then most of the downstream social marketing activities would need to be classified as macro social marketing. What social marketers should remember is, the use of macro, upstream, downstream and/or critical (to be discussed next) should not be seen as mutually exclusive but considered as the framework for the strategic outlook of social marketing (Gordon, 2013).

Utilising upstream social marketing or lobbying tactics is not without its critics. Wells (1997) believes that researchers should focus on establishing the truth rather than exerting pressure. I contend that social marketing is not just about research: there needs to be a practical application to the process. Lobbying is part of the day-to-day processes that social marketers do: a premise also accepted by Andreasen (1997, 2006), Goldberg (1995) and Hastings (2007).

2.6.3 Critical Social Marketing

Critical social marketing is defined as “*critical research from a marketing perspective on the impact commercial marketing has upon society, to*

build the evidence base, inform upstream efforts such as advocacy, policy and regulation, and inform the development of downstream social marketing interventions” (Gordon, 2011, p89). Essentially it reviews how commercial practices can impact social behaviour, a good example is the British Heart Foundation’s review of the amount of salt used in process foods and their lobbying of commercial organisations to change practice and procedures. The concept has been around for many years, Cherington (1920) examined the impact of marketing on the wellbeing of society as a whole. During that period the focus was on using traditional marketing techniques. Since then it has progressed into the field of social marketing with Gordon (2011), Hastings (2007) and Hastings & Saren (2003) being some of the scholars who have researched and promoted the subject. Despite this, the concept of critical social marketing still lacks clarity (Gordon, 2011): the confusion steams from the fact that a number of scholars from the social marketing field do not see critical social marketing as part of social marketing (ibid).

French (2009) has tried to add clarity by demonstrating that critical social marketing is in fact the competition within the commercial sector that is limiting the behaviour change. This type of approach should provide clear outcomes for scholars and practitioners analysing the environment (Rothschild, Mastin & Miller, 2006), which should support the argument of adopting wider ecological reviews of the social marketing dilemma. Gordon (2011) believes that social marketers need to apply critical social marketing before embarking on upstream social marketing because it will inform their thinking.

The addition of these three elements to social marketing has increased the debate around the subject. As mentioned, it has also caused confusion; unfortunately, the confusion is not limited to this aspect, there are other complexities and anomalies, which will now be discussed.

2.7 The Complexities of Social Marketing.

The examples highlighted in section 2.6 demonstrate the need for social marketers to widen their reach from the ‘targeted individual’ and involve other stakeholders in their quest to change behaviours. Such a move will increase

complexity in the social marketing domain, this view is reinforced by Dibb & Carrigan (2013), who believe that if social marketers can acknowledge the need to widen the social marketing horizon then they are likely to face new ethical and political challenges. This suggestion was also advocated by Collins, Tapp and Pressley (2010) and Hastings (2003b). Such a process requires moving upstream and adopting a more strategic approach (Dibb, 2014). This is why the enhancement of Collins, Tapp and Pressley's (2010) Social Ecological Framework is so important (it provides the basis of a strategic overview and will be discussed in more detail in the next chapter).

In terms of complexity, Evans (2006) and Snyder & Hamilton (2002) have demonstrated that those programmes requiring one time or limited changes are easier to employ than those with multiple or long term engagements. Hastings (2003) believes that this complexity is best explained by examining the level of behaviour changes that occur across a continuum and identifying those stakeholders who are involved in them. Spotswood et al. (2012) takes the debate a stage further, stating that social marketers should focus on dealing with multi-level behaviour change.

Woods (2012) corroborates this argument by stating that social marketing will not be able to reach its true objective in its current form. He adds that social marketers should redevelop the social marketing proposition, a premise shared by (Dibb, 2014; Lefebvre, 2012 and Spotswood et al., 2012): if social marketing does not then the domain could lose the respect of the wider marketing community. I personally believe that the problem is greater than this because social marketing lacks a differential with certain other disciplines, two of which are health education and health promotion, which we will now consider.

2.8 Health Education

Readers can no doubt be excused for thinking that social marketing is a discipline that is used to change health behaviours in society, but as I have already mentioned there is another body of professionals who see themselves as health educators and health behaviourist. Their mantra is to develop strategies to facilitate behaviour change in those individuals who need it (Glanz, Rimer & Viswanath, 2008; Conde et al., 2010; Frieden, 2010; St Ledger,

2012). This discipline is even supported by major institutions like the European Centre for Disease Prevention and Control who pay more credence to the term health education than they do social marketing (Navarro et al., 2011).

In defining health education we can see that it is very much like social marketing in that there seems to be a variety of propositions, for simplicity sake this thesis will just consider Simonds (1976, p8) version¹²: *“health education is aimed at bringing about behavioural changes in individuals, groups, and larger populations from behaviours that are presumed to be detrimental to health, to behaviours that are conducive to present and future health”*. Let’s now compare health education side by side with a social marketing definition (Table 2.3):

Table 2.3 Comparisons between the definitions of health education and social marketing.

Health Education

“Health education as aimed at bringing about behavioural changes in individuals, groups, and larger populations from behaviours that are presumed to be detrimental to health, to behaviours that are conducive to present and future health”. Simonds (1976, p8)

Social Marketing

"Social Marketing is the use of marketing principles and techniques to influence a target audience to voluntarily accept, reject, modify, or abandon a behaviour for the benefit of individuals, groups and society as a whole" (Kotler, Roberto and Lee, 2002, p5)

A comparison of the two definitions demonstrates why Wood (2012) was correct in stating that social marketing will not be able to reach its true objective in its current form: i.e., there are other more established disciplines, which have a wider reach, that are purporting to achieve the same objectives. I believe that there must be a stronger differential between the two subjects, which is another reason why my research is so important. This does not mean that one subject should dominate the other, there are opportunities for both parties to exist in harmony: Turkkan, Kaufman, and Rimer (2000)

¹² Simonds (1976) definition of health education is fairly representative of the variants that have been created. My specific objective is to demonstrate how similar it is to social marketing.

acknowledge the fact that different disciplines and professionals need to work together if they are to succeed in changing the way we deal with health issues.

Although it could be argued that some social marketing academics would prefer to see the domain take on an isolation stance, take for instance the comments made by Lefebvre (2011, p58) "*social marketing is one of the few intervention strategies that explicitly reject the 'clinical model' or education approach for public health or population-level change.*" I believe that this statement puts him at odds with many health professionals who see education as a key part of the process. We just have to refer to Frieden's (2010) health pyramid to clarify this (see Figure 2.1)

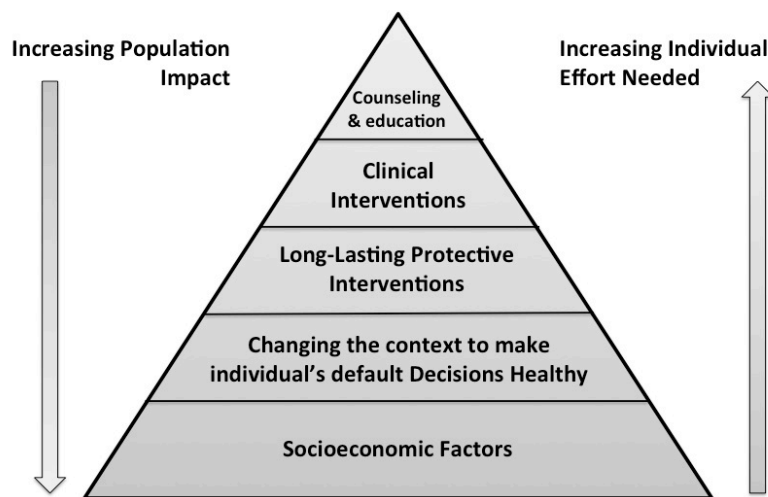


Figure 2.1 Frieden's (2010) Health Impact Pyramid.

Lefebvre (2011) does however agree that such products and services are necessary but believes that they are not sufficient to improve health (I am unable to find any evidence to support Lefebvre's (2011) claim). By contrast, there are many studies that demonstrate that health education programmes can have a significant impact on an individual's life through the promotion of behaviour change (Deakin et al., 2006; Loveman, Frampton & Clegg, 2008 and McLaren, McIntyre & Kirkpatrick, 2010). It must also be highlighted that other social marketers (Stead et al. (2007) for example) have claimed social marketing can also have a significant impact on an individual's life through the promotion of behaviour change.

2.9 Health Promotion

Health promotion is another subject area which is similar to social marketing. O'Donnell (1989, p5) defined it as: *"the science and art of helping people change their lifestyle toward a state of optimum health"* Like social marketing and health education there are a range of health promotion definitions.

Glanz, Rimer and Viswanath (2008, p5) state that, *"the science and art of health promotion and health education are eclectic and rapidly evolving; they reflect an amalgamation of approaches, methods, and strategies from social and health sciences, drawing on the theoretical perspectives, research, and practice tools of such diverse disciplines as psychology, sociology, anthropology, communications, nursing, economics, and marketing"*. There are clear symmetries with social marketing (or more specifically the health category of social marketing), some form of differentiation would help the cause of social marketing.

At the first International Conference on Health Promotion in Ottawa, the World Health Organisation (WHO) defined health promotion as *"the process of enabling people to increase control over, and to improve, their health. ... Therefore, health promotion is not just the responsibility of the health sector, but goes beyond healthy life-styles to well-being"* WHO (1986, p1). It also demonstrates that the concept of health promotion is backed by a major international organisation, unlike Social Marketing. WHO (1986, p2) go on to say that their commitment to action has dictated that:

"Governments should:

- *Build Healthy Public Policy,*
- *Create Supportive Environments,*
- *Strengthen Community Actions,*
- *Develop Personal Skills,*
- *Reorient Health Services,*
- *Moving into the Future."*

This means that today we are likely to see many healthcare professionals and clinicians taking on the responsibility of promoting health awareness and health education campaigns themselves: a process that often ends in failure

(Netto et al., 2010; Geense et al., 2013 and Liu et al., 2012). It also means that there is a real opportunity for social marketing to be repositioned so that it too can have a major impact on the health sector. This is because Maibach, Rothschild & Novelli (2002) and Pechmann & Slater (2013) have all stated that social marketing is poorly understood, and often criticized by the public health sector, many do not recognise the legitimacy of the discipline. These public service bodies also see health education and health promotion as more relevant to engaging individuals. As a result of these concerns, Beall et al. (2012 p2) are of the opinion that: *“there is a continuing need to evolve the science and art of social marketing, reflecting strong standards of practice”*, this would help secure the future of social marketing, making it much clearer for practitioners and academics.

The final thing we must consider before moving on is the impact of theory in the whole process. There are no theoretical models that completely define social marketing, health education or health promotion; academics and practitioners do however advocate using certain theories to facilitate the process (Donovan & Henley, 2003; Stead et al., 2006; Glanz, Rimer & Viswanath, 2008 and McKenzie-Mohr, 2011). There are many theories used in social marketing, they will be discussed in the next chapter, there is however one that dominates the literature and that is the Theory of Exchange (Bagozzi, 1975), lets now spend a moment looking at it in detail.

2.10 Theory of Exchange.

As we have already seen Bagozzi's (1975) theory of exchange plays a big part in concept of social marketing (this statement is demonstrable through the fact that 'exchange' is a key criterion of the social marketing benchmark criteria). There are however some issues associated with it, but before we can review these issues I need to explain the concept in detail. The Theory of Exchange is made up of three options, there is the 'Restricted Exchange' which is limited to two bodies that have a mutual association: putting it in context with my research it could be considered as a GP interacting with their patient or in traditional marketing terms, a business interacting with their clients (ibid). The key characteristics of restricted exchange is the need to maintain equality and for both parties to benefit (Ekeh, 1974). The next option of the exchange theory is 'Generalised Exchange' (Bagozzi, 1975). Here there must be at least

three actors that have an association with the exchange but do not directly benefit from each other (ibid). An example could be a funding body providing a social enterprise with resources that are sent abroad to support a community project (i.e., a pharmaceutical company providing Médecins Sans Frontières with vaccines to support a disaster relief programme). In commercial terms, this could also be a Corporate Social Responsibility (CSR) project or a sponsorship. Here Ekeh's (1974) premise of equality and reciprocal beneficiary does not hold, because the organisation providing the CSR or sponsorship does not directly benefit from the donation, although some might argue that their actions could be used in promoting the company as a whole. The final option is known as 'Complex Exchanges' and it is where all actors (of which there must be at least three) have a related association (Bagozzi, 1975). In a social marketing context it could be the Department of Works and Pension commissioning a project that uses a 'payment by results scheme': as an example, a training body may have been appointed to educate those individuals who are classed as long term unemployed in an effort to get them back into the work place, the training company will only be paid once the individuals find employment. In commercial terms it could be a manufacturer using a wholesaler to deliver to a retailer. Unlike the generalised exchange all parties directly benefit from the process.

The concept of exchange was criticised by Carman (1973) and Luck (1969) following Kotler and Levy's (1969) introduction of social marketing. They believed that exchange had to involve tangible goods. This argument has faded with most scholars now accepting the proposition provided by Bagozzi (Andreasen, 1994; Hastings & Saren, 2003; Lefebvre & Flora, 1988, Rothschild 1999 and Stead et al., 2007). Despite this, most research will only focus on the 'Restricted Exchange' model i.e, utilising the interaction with just the individual (Rothschild, 1999; Collins, Tapp & Pressley, 2010 and Helmig & Thaler, 2010). As Ekeh (1974) had stated, the exchange (restricted and complex) requires equality and for both parties to benefit. If this were the case, programmes targeting individuals who were not interested or had no intention to change would not fit into the Bagozzi model. In this situation Rothschild (1999) believes that legislation should be introduced. This would replicate the generalised exchange model as it would some form of trade off, albeit forced. In such a proposition the recipient may not see the benefit in it. An example

could be a traffic calming system outside a school, drivers are forced to slow down (the exchange), making the road safer even though the drivers may not appreciate it. Not all social marketing programmes would warrant a macro approach (i.e., the introduction of a legislative act to support it): as an example it is highly unlikely that a law will be introduced requiring the public to eat five pieces of fruit a day. This approach would be difficult to enforce and it would have severe implications on an individual's civil liberties.

The notion of targeting those individuals who have no intention to change a given behaviour is an interesting one and although a number of scholars believe that it should not be part of the social marketing domain (Spotswood et al., 2012) the concepts of macro social marketing and enforcement as described by Rothschild (1999) has to mean that it is already part of social marketing. I will contend that the inclusion of 'tackling involuntary behaviour changes' (i.e., targeting those who don't want to change) is important because it will become a way of differentiating social marketing from other disciplines (i.e., Health Education and Health Promotion). To reinforce the concept of including the 'tackling involuntary behaviour' in social marketing I draw your attention to Bartel's (1951, 1976 and 1988) 'History of Marketing Thought': here we can see that marketing is essential about convincing individuals to do things that they have not considered.

Lefebvre (2012) believes that the market place has changed and the old model of exchange needs to include value. He also believes that social marketers need to provide this value not just to the targeted individuals that need their behaviours changing but also to the other organisations and public bodies linked to this network (ibid). This change is supported by Dibb (2014), Hastings (2012), Lusch, Vargo & Tanniru (2010) and Spotswood et al. (2012), the concept is not new, it was first raised by Wallack et al. (1994), we have also seen Andreasen (2002) introduced the three levels of change to facilitate the process. This need for value is at the heart of my research and it demonstrates why it is so important: incorporating a wider environmental / ecological view is a way to differentiate social marketing from Health Promotion and Health Education. Lefebvre (2012) and Meadley et al. (2003) have taken a slightly different interpretation proposing that a Total Marketing Approach (TMA) is required. The TMA can be considered as a way to manage campaigns that have been designed to work across the public, non-governmental organisations

(NGOs) and/or the private sector. TMA would utilise communications, promotional, regulatory, financing and/or other strategies to influence changes to the behaviour of an individual (Lefebvre, 2011). My concern with this proposition is that it focuses on links with organisations only: Brofenbrenner (2005) and Collins, Tapp & Pressley (2010) have all shown that communities, cultural influences and other individuals will also play a big part in changing the 'targeted customer's' behaviour.

Finally, it should be noted that the social marketing domain sees the theory of exchange as the dominant factor in managing the 'pricing' element of the marketing mix (Andreasen, 2002). Competition is also accepted to be the conflicting behaviour (ibid), there is very little research relating to the commercial implications of social marketing. I believe that it could be another way of differentiating social marketing from other disciplines; lets now look at this proposition in more detail.

2.11 The Commercial Implications of Social Marketing.

When we refer to social marketing most people will relate commercial factors only to its definition, i.e., social marketing uses commercial marketing technologies (Andreasen, 1994; Dann, 2010 and French, Blair-Stevens & McVey, 2009). Madill, O'Reilly & Nadeau (2014) have now provided a new perspective to this meaning. They believe that due to the current economic climate, government and public bodies are struggling to provide the funding needed to maintain many social causes, resulting in social organisations competing amongst themselves for the limited resource that they need. Even though Madill, O'Reilly & Nadeau's (2014) research was based on Not For Profit (NFP) organisations, I believe that the premise holds true for social marketing associations this is because they have very close synergies. My premise is supported by Andreasen (2012) who sees social marketing organisations as having to compete for a variety of resources to achieve their target. Dibb (2014) also acknowledges intricate and multifarious connection between social and commercial marketing, which scholars need to consider: an example could be the funding of a programme.

When it comes to funding there are two prospects for social marketers to consider, the first relates to sponsorship (Madill, O'Reilly & Nadeau's, 2014 and

Niblett, 2005) and the second, grants (Madill, O'Reilly & Nadeau's, 2014). Sponsorship tends to have links with commercial organisations looking to expand their corporate social responsibility portfolio (ibid). Grants on the other hand do not illicit tangible returns (ibid). Andreasen (2006) and Stead et al. (2007) believe that social marketing organisations will need robust appraisal processes to measure the programme's success and although not explicitly in their statements, I believe that these appraisals are critical factors in gaining funding support or continued funding from other organisations (a principle which is also supported by Madill, O'Reilly & Nadeau's (2014)).

The link between funding and social marketing although sparse within the literature is not new. Hastings (2003a) encourages social marketers to build relationships not only with the end customer but also with other stakeholders like suppliers. Implicit within this statement has to be the provision of funds or resources to support the social marketing organisation. Niblett (2005) takes a slightly different perspective, he believes the relationship should be more of a partnership. In light of this, it is worth spending some time looking at relationships in detail.

2.12 Relationship Marketing.

When considering relationship marketing (RM) some have argued that its introduction has created a major paradigm shift in the marketing domain (Sheth & Parvatiyar, 2002). From a social marketing perspective, Hastings (2003) and Marques & Domegan (2011) have been key advocates in promoting RM as an alternative to engaging consumers to adopt the appropriate behaviour changes. The lack of literature related to social marketing demonstrates a malaise amongst social marketers in its possible usefulness to the field. Before considering the details, it is worth reminding the reader of the heritage of RM.

RM is defined as the ongoing process of engaging in cooperative and collaborative activities with customers to create or enhance mutual economic value at reduced costs (Parvatiyar & Sheth, 2000). This definition seems at odds with social marketing because of its focus on the 'economic value' and 'costs'. It demonstrates that social marketers will need to be very specific when referring to RM, providing a clear definition of its meaning. This is because

Christopher, Payne & Ballantyne (1991) see RM linked to the wider external market network, covering all stakeholders. Here there is no reference to economic gains or costs, more specifically it refers to the wider external market which has great synergies to the ecological theory: the focus of my research. Finally, Gummesson (1997) has argued that RM should be considered as a value creation process. This builds on the work of Grönroos (1996) who believes that firms should consider themselves as service providers because customers demand a holistic approach which includes, but is not limited to, information, delivery, updates, repairs and customer service. Here the aspect of value creation is one that Collins, Tapp & Pressley (2010) have advocated in the Social Ecological Framework: another area that my research will be reviewing.

Having gained an insight into RM's legacy we shall now consider in more detail how it can be applied to social marketing. A key proposition of Hastings (2003), who is the main proponent of linking RM to social marketing, is the need for social marketers to focus on relationships and not transactions. This relationship should not just be restricted to the individual: larger communities or even the population could be engaged (Hastings et al., 1998). Hastings et al. (1998) believes that the combination of health and commercial databases would facilitate the process (ibid). Such a move may have legal implications; as an example in England, "approval under section 251 of the NHS Act (2006) allows the Secretary of State for Health to make regulations to set aside the common law duty of confidentiality for defined medical purposes", but this would not usually be authorised if a patient had objected; although disclosure might still be justified in the public interest. This act is supported by a new programme called 'Care.data' (Harding, 2014) which was introduced following changes to the Health and Social Care Act (2012), allowing the Health and Social Care Information Centre (HSCIC) to collect and share confidential information from medical records with other healthcare professionals.

To reinforce the links to social marketing we need to return to the Bagozzi's (1975) theory of exchange, which forms an integral part of social marketing. The theory of exchange was built on Ekeh's (1974) suggestion that exchange can only take place when there is equality between at least two parties and they both benefit from the process. Arguable, these traits can only be achieved when there is a relationship between said parties. It is also worth noting that

not every social marketing campaign will be positively accepted by its targeted market (Spotswood et al., 2012). In this situation the adoption of macro social marketing (Domegan, 2008; Kennedy & Parsons, 2012 and Wymer, 2011) would be more important. Here the concept of enforcement as defined by Rothschild (1999) becomes more important. Enforcement and relationships are notions which can be found at opposite ends of a continuum, in general a behaviour change would be forced upon an individual through some form of legislation. Examples would be, the need to wear a seat belt whilst travelling in a car or the restriction of tobacco and alcohol sales to minors.

Analysis of the information identified in this section demonstrates that relationship marketing plays an important part in the development of social marketing. There are a number of caveats, the first being that the concept should not be restricted to those individuals where the behaviour change is being targeted: wider stakeholders must be considered. The second relates to the volitional control, there are certain behaviour changes which individual may find difficult to accept: to achieve the aims it is likely that macro social marketing techniques are used. These techniques tend to be related to legislation and enforcement, as such the relationships may not be of a positive nature.

2.13 Conclusion.

In the forty-four years of its existence, the social marketing domain has evolved into four distinct subcategories: safety, environmental, social and health (Kotler & Lee, 2002), although many focus on the health aspect (Chapman et al., 2005). There is also, what can now be described as a continuum which houses variants of the domain that include, Macro Social Marketing (Domegan, 2008; Kennedy & Parsons, 2012 and Wymer, 2011), Critical Social Marketing (Gordon, 2011) and Upstream Social Marketing (Gordon, 2013). Like many academic subjects there is a proliferation of definitions associated to it, this has caused confusion and in some instances divided the fraternity (a good example is the explanation of the product (Peattie & Peattie, 2003)).

It is evident from the literature that there is an acceptance that the Benchmark Criteria (see Andreason, 2002; French, 2009 and the National Social Marketing

Centre, 2007) is used to establish the credibility of a social marketing campaign. The problem with this criteria and social marketing in general, is that it focuses only on the individual, this was first identified by Wallack (1984) and has been reiterated by Collins, Tapp & Pressley (2010), Helmig & Thaler (2010), Rothschild (1999) and Wallack et al. (1993): demonstrating a clear gap in the literature that needs addressing (note, there is now evidence of scholars bridging this gap, an example being the research from Collins, Tapp & Pressley (2010), but it is my opinion that more needs to be done).

Another concern relating to social marketing is that it tends to focus on those individuals who voluntarily accept the behaviour change (Kotler, Roberto and Lee, 2002). There is now an argument that social marketing should also be targeting individuals who are also against change (Spotswood et al., 2012). This would help differentiate the social marketing from disciplines like health education and health promotion which currently have synergies that are too close to social marketing.

Beall (2012) has already identified that in order for social marketing to secure its future there needs to be a continual evolution of the subject, which is exactly what this thesis is attempting to do.

Chapter 3: The Ecology Theory.

3.1 Introduction.

This chapter will review the literature concomitant with the bio-ecology theory, to put the analysis into context it will start with the examination of the relevant theory and knowledge associated with social marketing. As mentioned in the previous chapter social marketing does not have any specific theories of its own, it uses and adapts models from different disciplines (Gordon et al., 2006; Kotler & Zaltman, 1971; Stead et al., 2007 and Wymer, 2011). The chapter ends by focusing specifically on the Social Ecological Framework (SEF), a model developed by Collins, Tapp and Pressley (2010): my thesis takes its foundations from the SEF and has the objective of enhancing it.

On completing this chapter, the reader should have a good understanding of the issues surrounding the use of the more common theories adopted by social marketers and have a clear understanding why the ecological theory can significantly enhance the knowledge and practice of social marketing.

3.2 The Common Theories Associated With Social Marketing.

As discussed earlier, social marketing is a discipline that has been designed to utilise commercial marketing methods in an attempt to encourage positive behaviour changes in individuals and the society of which they are apart (Andreasen, 1994 and Kotler, Roberto & Lee, 2002). Andreasen (2012) goes on to say that some form of theory must be incorporated into a campaign if it is to be accepted as a legitimate social marketing programme. The use of theory in social marketing was also endorsed by French & Blair-Stevens (2006). Despite this endorsement there is a lack of use and reporting of theories used by social marketers (Luca & Suggs, 2012). They have instigated a call to action for researchers to apply and report on the theory being used in their studies. I believe that this call to action is important because the multiplicity and intricacies of social marketing campaigns mean that there can be no single behavioural theory that dominates the realm of social marketing. This premise

is backed by Helmig & Thaler (2010), their study demonstrated that the vast majority of social marketing scholars use a variety of theories. The most popular at 22.1% was Ajzen & Madden's (1986) Theory of Reasoned Action; 16.2% used a combination of Bandura's (1986) Social Cognitive Theory and the Social Observation Learning Theory (Bandura, 1991); 11.8% used Rosenstock's (1974) Health Belief Model although Helmig & Thaler (2010) have attributed it to Janz, Champion, & Strecher (2002); Ajzen's (1991) Theory of Planned Behaviour and Rogers' (1975) Protection Motivation Theory both came in at 10.5 %; Prochaska & DiClemente's (1982) Transtheoretical Model of Change was at 8.8%. A more recent study by Truong (2014) had a similar finding albeit with Bandura's (1986) Social Cognitive Theory came top.

What is not clear from the above research is why social marketers have preferred these theories. Is it that such theories satisfy all the requirements needed by social marketers? To answer this question, we must first look at each theory in detail.

3.2.1 Theory Of Reasoned Action.

Ajzen & Madden's (1986) Theory of Reasoned Action (TRA) is based on the premise that behaviour intention is the precursor to behaviour and is driven by the attitude and / or the beliefs of an individual about a particular behaviour change. There is also the influence of subjective norms, which can be defined as the stimulus of a close social group(s) and/or experts that the said individual believes in (see Figure 3.1)

We can see from the model (Figure 3.1) that the TRA does start addressing some of the criticisms highlighted by Collins, Tapp & Pressley (2010), Helmig & Thaler (2010), Rothschild (1999) and Wallack et al., (1993), in that it introduces a wider environmental perspective through the concept of "subjective norms". Here we can see that the belief of others will have a bearing on the targeted individual's attitude to the positive behaviour change, but it is still the individual that dominates the theory.

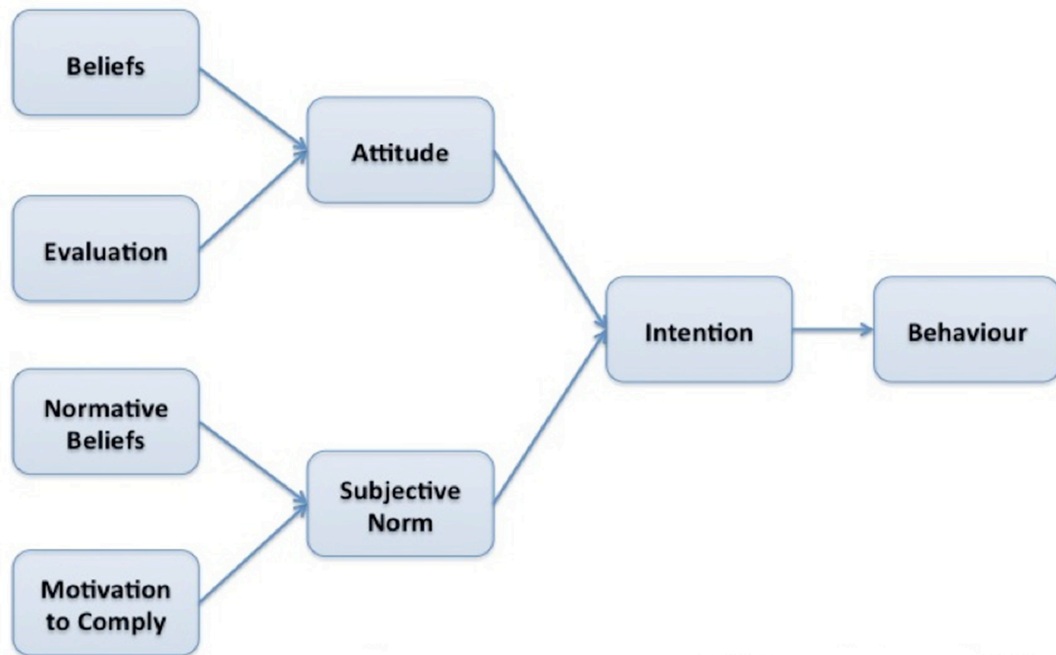


Figure 3.1 Theory of Reasoned Action (adapted from Ajzen & Madden, 1986)

There are a number of other criticisms associated with the model: the first is from the co-author, Ajzen (1985). He argued that the TRA worked well when individuals adopt volitional¹³ behaviours (ibid), but there is a problem when the required behaviour change is not under the volitional control of the person (ibid). Ajzen (1985) proposed a new model, the Theory of Planned Behaviour (TPB). I shall cover this theory in more depth later in this chapter, however it is worth highlighting that it includes the criterion: perceived behaviour control, which is essentially “one’s perception of how easy or difficult it is to perform the behaviour” (Eagly & Chaiken, 1993, p185). As I will demonstrate later, this may be largely a feature that can be attributed to the exosystem in Bronfenbrenner’s (1977) ecological theory and is arguably a key factor in determining if an individual has been given the ability to engage in the behaviour change requirement.

Based on these criticisms it is difficult to see why the TRA is so popular amongst social marketers. It may be that the research design chosen by those using TRA did not lend itself to testing the perceived behaviour

¹³ This is when the individuals have made a conscious choice or decision to adopt the behaviour change: i.e., when they can see the value in adopting it.

control: Helmig & Thaler (2010) identified that only 26.6% of the studies compared a baseline with post campaign data¹⁴. It could be that these types of studies are too resource intensive, although I have no evidence to prove it.

Hale, Householder & Greene (2002) put forward other criticisms. The first is the assumption that the TRA's "*attitudes and subjective norms have empirically separate and distinct influences on behaviour intention*" (ibid, p270). They cite the work of Bearden & Crockett (1981), Miniard & Cohen (1981) and Warshaw (1980) who can all demonstrate that attitudes and subjective norms are all positively correlated.

In terms of diabetes, Didarloo et al. (2012) demonstrated that using the TRA to support the development of educational interventions can improve diabetes self-management behaviour and control the disease. Ayling et al. (2015) on the other hand identified that the use of theories in interventions for young people with type 1 diabetes is very limited and that it does not guarantee success.

There is also concern that the latent variables used in the TRA model are insufficient to predict behaviour intention let alone the behaviour itself (Hale, Householder & Greene, 2002). A good example was presented by Eagly & Chaiken (1993), they demonstrated that moral obligations, self-identity, affects and prior behaviour are also possible predictors of behaviour intention.

3.2.2 Social Cognitive Theory

In their review, Helmig & Thaler (2010) decided to combine the Social Cognitive Theory (SCT) with the Social Observation Learning Theory (SOLT), citing Banduara (1986) and Banduara (1991) respectively. On investigation it has become apparent that the SOLT was developed by Akers (1973) and Banduara's (1991) article makes no reference to the social observation learning theory or even the social learning theory. This err makes it difficult to critically review this element of Helmig & Thaler's

¹⁴ It is my belief (backed by the proposals put forward by Bronfenbrenner (2005)) that the ability to operationalize a study (looking specifically at perceived behaviour control) would require a longitudinal experimental study with a control group where the perceived behaviour control changes over time.

(2010) work. For this reason I shall make the assumption that their focus was mainly on the SCT (I base this assumption on the fact that Truong (2014) believes the SCT to be the most prevalent theory used by social marketers).

The SCT was introduced by Bandura (1986), he explained that an individual's psychological and social characteristics were influenced by behaviour, environmental factors and personal factors (see Figure 3.2)

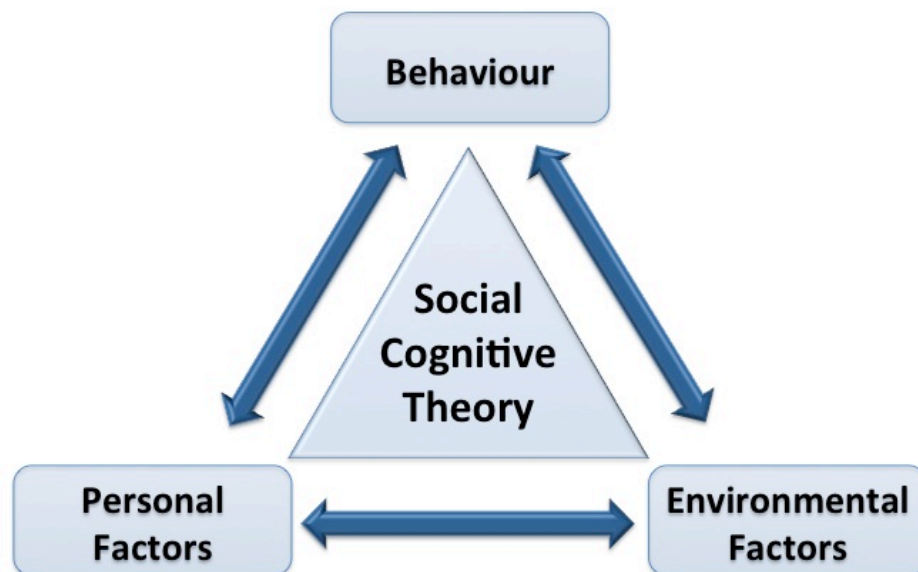


Figure 3.2 The Social Cognitive Theory (adapted from Bandura (1986))

Again we can see that the SCT goes some way in addressing the concerns raised by Collins, Tapp & Pressley (2010), Helmig & Thaler (2010), Rothschild (1999) and Wallack et al., (1993), in that it introduces a wider environmental consideration through the environmental factors. My concern is that it does not provide the same depth of review that Bronfenbrenner (1974, 1994, 2005) and Collins, Tapp & Pressley (2010) provide. It does however include a concept (despite its absence from the graphical representation (see Figure 3.2)) called 'Mastery Modelling'. Bandura (1986) states that this process is used to facilitate the building of belief that is required by an individual to support the required behaviour change. Mastery modelling is made up of four elements, see Table 3.1:

Table 3.1 The Core Elements of Mastery Modelling (Ozer & Bandura, 1990)

-
- **Attention:** identifying / observing the characteristics needed for the change.
 - **Retention:** being able to remember and apply the characteristics identified.
 - **Motor Reproduction:** having the ability to replicate the characteristics identified.
 - **Motivation:** providing the reinforcement needed to motivate the individual to adopt the behaviour change.
-

Mastery modelling is based on the premise that individuals are more likely to learn from others. Wood & Bandura (1989, p363) believe that individuals are “*motivated by the success of others who are similar to themselves*”. In a social marketing context, particularly in the health arena, there is a requirement to formalise the mastery modelling process: Lorig et al.’s (1999) Expert Patient Programme is a good example of this. If this is the case, it could be argued that mastery modelling is not just limited to individuals who are similar to those being targeted for the behaviour change (as stated by Wood & Bandura (1989)), this is because health education programmes are known to be delivered by clinicians. It would mean that Lazarsfeld, Berelson, & Gaudet’s (1968) Two Step Flow Theory could be incorporated into the model, where key opinion leaders (which would be the clinicians) become a dominant influencer to the targeted individual.

In terms of diabetes, Peyman et al. (2013) used the SCT as predictors of physical activity among women with diabetes type II. According to the results, the self-regulation, self-efficacy and social support were important influences on the physical activity and they must be considerate in designing and implementing of educational interventions. Ahn et al. (2014) developed a study aimed at facilitating the designs for a nutrition education program for consumers to reduce sodium intake based on social cognitive theory (SCT). They found that the nutrition education program and education materials could be utilized for the community education and provide the basis for further consumer targeted education program for reducing sodium intake. Plotnikoff et al. (2008) developed a study to test the SCT for explaining physical activity (PA) in a large population sample of adults with type I or type II diabetes.

They identified that the SCT fits individuals with type I and type II diabetes except for SCT impediments, which appear to be obstructing goal-setting in individuals with type II diabetes only. Promotion of health behaviour should target self-efficacy to set goals and change behaviour. Outcome expectancies and social support are also important factors for setting goals and behaviour performance.

The overarching factor of the SCT is the need of some form of educational platform (formal or informal). This may be the reason why the SCT is so popular amongst social marketers: the messages produced through the promotional mix are an informal educational process that can easily be measured.

3.2.3 Health Belief Model.

The Health Belief Model (HBM) “*grew out of a set of independent, applied research problems with which a group of investigators in the Public Health Service were confronted with between 1950 and 1960*” (Rosenstock, 1974, p328). The main focus was to establish why a certain tuberculosis screening campaign had failed in its attempt to engage the general public in the USA (ibid). The HBM is made up of four constructs: perceived susceptibility, perceived severity, perceived benefits and perceived barriers (Janz & Becker, 1984). From this outline it is clear that human perception is the main driver of the model, but what does perception really mean? The Oxford English Dictionary states that perception provides an individual with “*the ability to see, hear, or become aware of something through the senses*” (Fowler & Fowler, 2011, p902). This has to mean that the perception value amongst individuals will vary: a proposition that is supported by Douglas et al. (2000). If this is the case then it would be reasonable to assume that a targeted group of individuals will have a range of beliefs about a given behaviour requirement. With this in mind, how should social marketers segment their target audiences? I would surmise that there is a perception value or level that is easily identifiable and could be used as part of the segmentation process. My literature search was not able to identify one: although based on the work of Bruner, Hensel & James (2001) it could be argued that one should consider this perception value as a latent variable,

as such it would require a number of scales to measure it. So, before critically reviewing the model further it is worth understanding the make-up of its core components.

Rosenstock (1974) stated that perceived susceptibility is the risk perception of an individual, i.e., what was the likelihood that they would come to harm by engaging in a given activity. Conditions with a higher perception of susceptibility by the individual are more likely to warrant the adoption of the appropriate behaviour measures (ibid). The perceived severity is an individual's estimation of how severe the condition is likely to affect them. Again the greater the perception the more likely the individual is to adopt the appropriate measures (ibid).

There is also perceived severity, which is an estimation, by the individual, on the gravity of the condition which has or is likely to affect them. It is already known that this perception will vary considerably by individuals although their current state of health will be positively correlated to it (Glanz et al., 2002). The third factor, perceived benefits is the demonstrable benefits an individual would achieve if he or she adopted the required behaviour change. In terms of messaging this is easier for social marketers as the benefits are likely to be consistent with only a variance in output. What the model does not stipulate is how long the campaign should run for and what impact time has on the programme. As we will see later, Bronfenbrenner's (2005) ecological theory provides better guidance on this matter. The final factor, perceived barriers is an estimation by the individual on the known constraint they will face when adopting the required behaviour change. Andreasen (1994) summarised this as social marketing competition.

Figure 3.3 Figure 3.3 is a graphical representation of the HBM. The social marketer would (or should) develop campaigns that target the three levels: the individual perception, the modifying factors and the likelihood of action. It does present a number of limitations, which I shall now discuss.

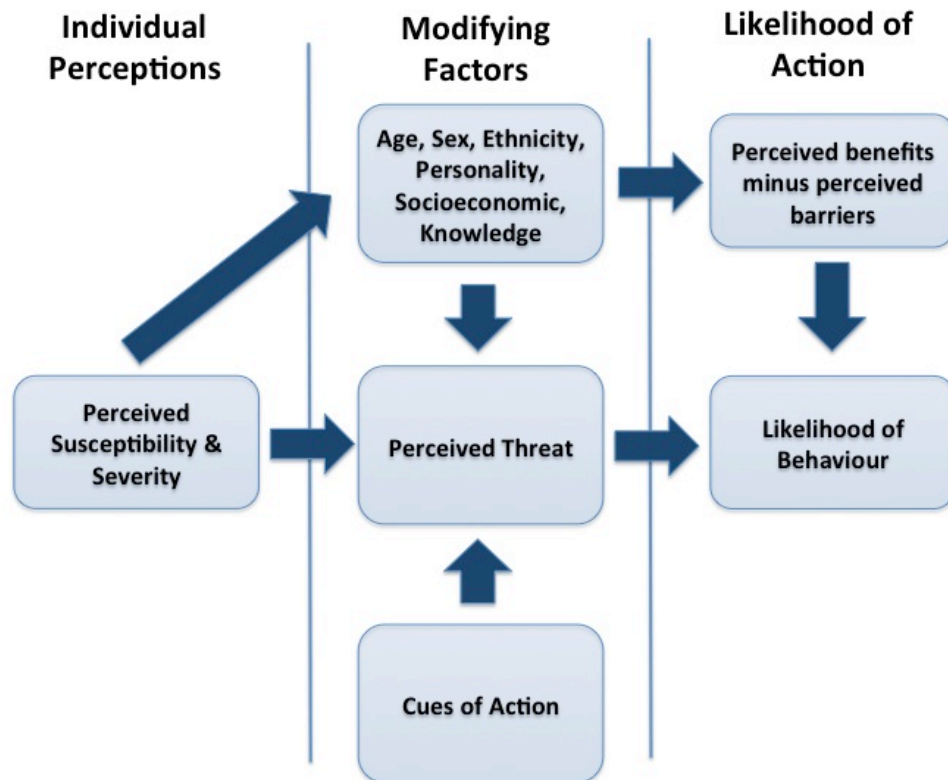


Figure 3.3 A graphical representation of the Health Belief Model (Rosenstock, 1974)

Nutbeam and Harris (2010) believed that the HBM took little account of the influence on the targeted individual's family, friends and peer groups. This is an issue that can easily be addressed by incorporating the work of Bronfenbrenner (1994, 2005). Nutbeam and Harris (2010) also state that the HBM assumes 'ideal' rather than real behaviour. Brewer & Rimer (2008) believe that the HBM misses key aspects that are not inherently health-related but may play an important role in shaping the targeted individual's health behaviours. Incorporating elements of Bronfenbrenner's (1974) exosystem could overcome the issue.

Looking at self-management programmes specifically, Jalilian et al.'s., (2014) study focused on how diabetic patients in Iran were influenced to adopt new health behaviours when the HBM was applied as a theoretical framework. Their result showed education programmes based on the HBM improved the patient's self-management abilities. They go on to argue that implementing such programmes can be effective in the and prevention of diabetes complications. Bayat et al. (2013) identified that educational programmes had a positive and significant impact

($p < 0.0001$) on extended health model belief constructs (including perceived susceptibility, perceived intensity, perceived benefits, perceived barriers and self-efficacy) in experimental group, 3 and 6 months after the intervention. The results of their study showed the importance of extended health belief model based education in improving the model constructs and increasing self-efficacy in patients with type-2 diabetes. Sadeghi et al.'s. (2015) study was conducted to determine the effectiveness of the HBM on, Knowledge, Attitude and Practice of people over 30 years old referred for diabetes screenings. They identified that the HBM was effective in educating the people over 30 years old.

3.2.4 Theory of Planned Behaviour.

As mentioned earlier, the Theory of Planned Behaviour (TPB) is an adaption of the TRA and was introduced by Ajzen (1991). Just like the TRA, the TPB uses the individual's intention to adopt a given behaviour as the main driver (ibid). A graphical representation of the model can be seen in Figure 3.4.

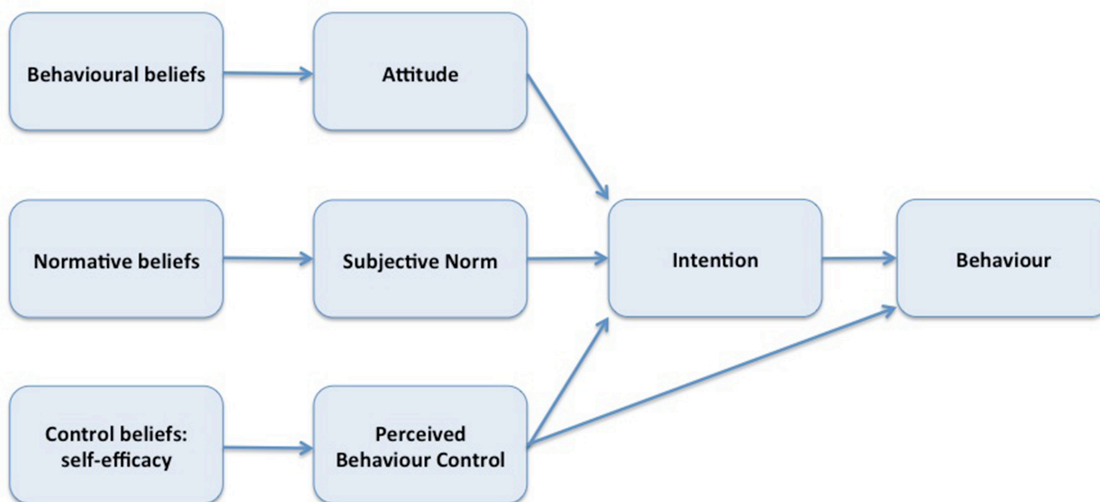


Figure 3.4 The Theory of Planned Behaviour (adapted from Ajzen (1991))

Readers will notice that the only difference between the TRA and TPB is the introduction of the 'perceived behaviour control'. This perceived behaviour control is the targeted individual's perception of the 'easiness'

or 'difficulty' in adopting the required behaviour change (ibid). Another way of looking at the issue is: "*behavioural intention can find expression in behaviour only if the behaviour in question is under volitional control, i.e., if the person can decide at will to perform or not perform the behaviour*" Ajzen (1991, p181). This means volitional control is an overriding factor to the process.

What the TPB does not do is provide guidance on to how engage with those individuals who have low volitional control (Armitage & Conner, 2001). This problem can be tackled using Bronfenbrenner's (1974, 1994, 2005) Exosystem processes. Armitage & Conner (2001) also believe that perceived behaviour control will not accurately replicate the actual control adopted by the targeted individual: they base this conclusion on the work of Langer (1975) and Lerner (1977) who focused on the issues of the 'illusion of control' to justify the proposition.

Another issue related with the TPB (although, it could be argued that it would be associated with many other theories, or more specifically the research methodology) is the need to self-report the findings: Norwich & Rovoli, (1993) and Pellino (1997) identified that this method is unreliable compared with more objective behaviour measures (i.e., observing the actual behaviour measures). Unfortunately, observational methods are not always possible in studies using participants across large geographical areas or over long periods of time (Prince et al., 2008).

In terms of the management of diabetes there are many examples of how the TPB was used in research. Traina et al. (2016) demonstrated that questionnaires based on the Theory of Planned Behavior was an ideal way for identifying an individual's intention for engaging in self-care behaviours. White et al. (2012) used a randomized controlled trial to evaluate a four-week version of the TPB intervention to promote regular physical activity and healthy eating amongst older adults diagnosed with Type 2 diabetes or cardiovascular disease. The results indicate that the TPB intervention may encourage physical activity among older people with diabetes and cardiovascular disease. Trout, Ellis & Trout (2013) focused on the prevention of obesity and diabetes amongst child bearing women. They identified that utilizing the TPB in psychological and coaching

techniques can be useful in sustaining behaviours that promote a healthy weight. These examples demonstrate that the primary focus is on the individual, which is a criticism of social marketing (Collins, Tapp and Pressley, 2010)

3.2.5 Protection Motivation Theory.

The Protection Motivation Theory (PMT) was introduced by Rogers (1975), it was then revised by Maddux & Rogers (1983). The PMT was designed to use fear-based communications to encourage individuals to moderate or change their health behaviours. The PMT is built on the work of Lazarus, Deese & Osler (1952), which looked at the impact of battle fatigue on soldiers, sailors and airmen during the two world wars. Maddux & Rogers (1983) also integrated the work of Hovland, Janis & Kelley (1953) and their research on the variables in fear appeals.

The model uses maladaptive and adaptive responses (see Figure 3.5) to predict behaviour.

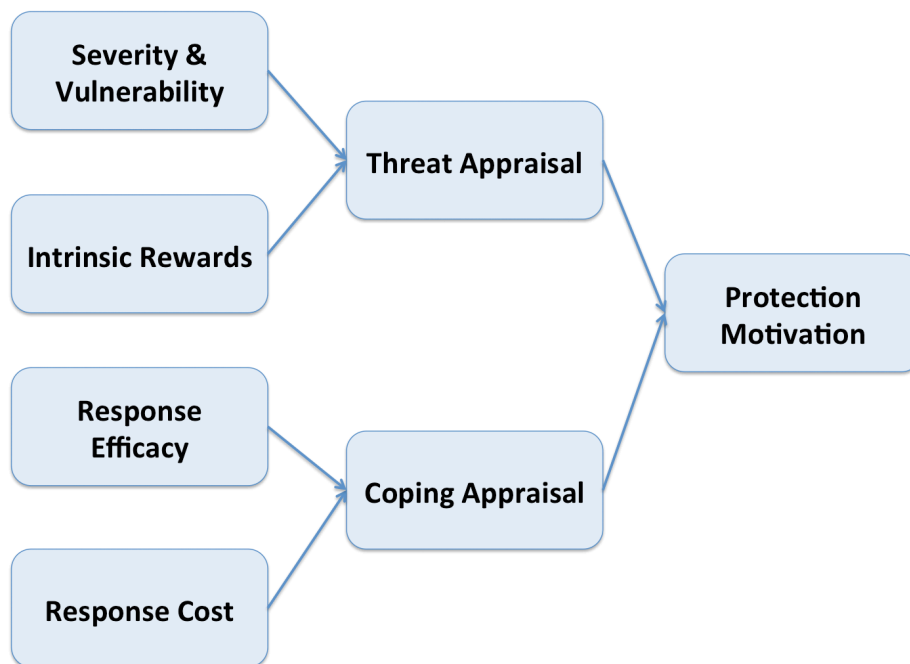


Figure 3.5 A graphical representation of the Protection Motivation Theory (Maddux & Rogers, 1983).

This model stipulates that an individual will appraise the severity and vulnerability of a given medical condition. They then calculate the response cost for changing their behaviour. Abraham et al. (1994) is of the opinion that the model is flawed because they believe that there is an intangible interpretation and confusion between the rewards associated with the risk behaviour versus the positive behaviour, i.e., eating junk food now may not impact an individual until many years down the line so the response cost may not be clear for the individual.

It could be argued that the PMT is a variation of Rosenstock's (1974) Health Belief Model with the main differences being the lack of consideration of external factors and the introduction of the concept of coping appraisal. We should also ask if such a model is better suited to individuals who have already been diagnosed with a chronic condition than those who are at risk of developing one.

In terms of the management of diabetes, Gaston & Prapavessis, (2014) carried out a study to examine whether augmenting a PMT intervention with a 'Health Action Process Approach' (see Schwarzer, Lippke & Luszczynska, 2011) can enhance exercise behavior change amongst pregnant women living with diabetes. They identified that augmenting a PMT intervention with action or action-and-coping-planning can enhance exercise behaviour change. Plotnikoff et al. (2009) investigated the utility of the PMT in predicting aerobic and resistance training in a population sample of adults living with Type II diabetes. None of the unique constructs of the PMT (i.e., perceived vulnerability, severity and fear) were significant with either aerobic and resistance training intention. These results may guide the development of effective aerobic and resistance interventions in people with Type II diabetes. Again the focus is on the individual, although, Ma, Ailawadi & Grewal's (2013) focus was on how household members' personal characteristics and key marketing factors affect the healthfulness of food purchased for in-home consumption. Here an external factor was considered, they identified that education, nutrition interest, and self-control were not associated with healthier changes in response to a diagnosis, but younger and higher-income households, as well as those in which the diabetic patient was a female, made healthier changes. These findings have notable implications for

marketers, consumers, consumer researchers, and public health professionals.

3.2.6 The Transtheoretical Model.

Prochaska & DiClemente's (1982) Transtheoretical Model (TTM) was designed to conceptualise the process of intentional behaviour change by integrating the concerns of other behaviour theories. Just like Kübler-Ross' (1997) Five Stages Of Grief model the TTM is based on the premise that an individual will move through a series of changes before reaching the desired behaviour change (or in Kübler-Ross' case acceptance of a major change in circumstances).

Again, like the Five Stages Of Grief model (Kübler-Ross, 1997), the TTM includes an element of time. This is a key difference to other behaviour change theories and is endorsed¹⁵ by Bronfenbrenner (1994) in his Ecological Theory. Like Bronfenbrenner (1994) and Kübler-Ross (1997), Prochaska & DiClemente (1982) believe that the behaviour change is not a single event but a process that is developed over time. Although Bronfenbrenner (1994) believes that the interaction with the individual to facilitate the change has to increase in complexity over time. From a marketing perspective, time is also considered important: Fill, Hughes & DeFancasco (2012) and Richards & Curran (2002) have demonstrated that the continual cycle of running and stopping adverts or 'pulsing' is the most effective way to engage customers. I strongly believe that this concept should be incorporated into the social marketing process, though further research will be required.

There is a word of warning however, social marketers must be wary that time flowing through the TTM may not be linear because Prochaska & DiClemente (1982 & 1992) have stated that an individual can easily relapse to a previous stage (like a recovering alcoholic 'falling off the wagon'). It does demonstrate that the work of Fill, Hughes & DeFancasco (2012) and Richards & Curran (2002) has great synergies in the field of

¹⁵ The endorsement relates to the concept of time and not the five stages of grief model itself.

behaviour change and that campaigns need to be continuous although it is not clear what this means exactly as a quantifiable figure.

Prochaska & DiClemente (1983) stated that the TTM has five stages: precontemplation; contemplation; preparation; action and maintenance. Those who find themselves in the precontemplation stage are not likely to embark on the required behaviour change in the near future (ibid). They are classed as being uninformed or unaware of the importance of the required behaviour change (ibid). I would see this as a specific market segment requiring change: the social marketers will need to use the promotional element of the marketing mix to increase engagement. What Prochaska & DiClemente (1982) have failed to do is provide any guidance on how this can be achieved. Incorporating it with elements of Bronfenbrenner's (1994) ecological model could overcome this weakness.

Those in the contemplation stage are aware of the issues and are in the process of 'intending' to change (Prochaska & DiClemente, 1982). It is not clear from the study how the contemplation stage is initiated, although there is an inference that the 'awareness programmes' are the main drivers, which also demonstrates the importance of marketing in the process. Unfortunately the development and delivery of a simple advertising campaign is unlikely to reach the total market place this is because, as we have seen with the work of Ajzen (1991), Ajzen & Madden (1986), Bandura (1986), Bronfenbrenner (1994) and Spotswood and Tapp (2010) there are many wider social and ecological issues that must be considered first.

The preparation stage is when an individual is about to embark on a behaviour change (Prochaska & DiClemente, 1982). In the context of this study it can be seen as an individual attending a diabetes health education course. One can consider it as the point when the individual begins the process of identifying what they need to do to change their behaviour and why they need to do it. Once this is known the individual begins the action stage, this is where they start the process of modifying the behaviour (ibid).

The final stage is maintenance, here Prochaska & DiClemente, (1982) explain that the individual will be working to prevent a relapse. It is not

clear from Prochaska & DiClemente's work how much the campaigner will need to be involved in the process, if at all.

There are a number of limitations associated with the TTM, Bandura (1997) argues that the 'human functioning process' is too complex to be categorised into discrete stages. I am not sure that this is a valid criticism as no theory is absolutely perfect: it would have to mean that all theories face the same problem, including Bandura's own. Kraft et al. (1999) argues that the model has no theoretical foundation; they also state that the TTM lacks empirical evidence. If we return to the work of Helmig & Thaler (2010) and Truong (2014) we can see a growth in evidence is now overcoming this concern. I would also argue that (although not explicitly stated) the TTM uses the same theoretical foundations as the work of Kübler-Ross (1997): the Five Stages Of Grief model.

In terms of diabetes, Tosun & Zincir (2016) identified that the risk of Type II diabetes was shown to be reduced at rates up to 58% or its emergence may be delayed with healthy lifestyle changes in different studies. The TTM model and motivational interview methods are especially used to increase the adaptation of individuals to disease management and to change behaviours about diabetes mellitus for decreasing or preventing the harmful effects of diabetes mellitus in studies conducted with individuals with Type II diabetes. Motivational interview method based on transtheoretical model was an easy and efficient counselling method to reach behavioural change.

Interestingly, Izham, Arafat & Awaisu's (2015) systematic review provided evidence that TTM interventions were effective in promoting exercise, and encouraging patients to pursue a healthier diet but its effect on medication adherence was not clearly identifiable.

The examples highlighted above demonstrate that there are a variety of theoretical models / theories that social marketers can adopt for their research. These options have a number of limitations, more concerning is the fact that they do not address the gaps highlighted by Collins, Tapp & Pressley (2010), Helmig & Thaler (2010), Rothschild (1999) and Wallack et al. (1993).

This literature review also reinforces the work of Fishbein & Yzer (2003) who states that a targeted behaviour change is facilitated by an individual's attitudinal, normative, self-efficacy, environmental or any other additional social concerns. It demonstrates that social marketers may need to utilise multiple theories if they are going to maximise the reach to gain acceptance of the desired behaviour change. In light of the fact that the above theories tend to focus on the individual I would argue that the success rates can only be attributed to certain groups of individuals (i.e., a limited market segment): this is because there is very little evidence of social marketing campaigns tackling the issues of the black, minority and ethnic (BME) groups or long term unemployed communities when considering a national problem. One can also argue that none of these theories / models have been designed specifically for social marketing, which limits its use. There is however a new model, the Social Ecological Framework (SEF), which was developed by Collins, Tapp & Pressley (2010) that could overcome many of the issues highlighted above. The SEF is based on Bronfenbrenner's (1977, 1994, 2005) Ecological Theory, before reviewing the SEF in detail I will provide the reader with an insight into the mechanics of the various Ecological Theories that have been published.

3.3 Ecological Theories.

According to the Oxford English Dictionary (Fowler & Fowler, 1989, p386), the definition of ecology is a "*branch of biology dealing with living organism's habitats, modes of life and relations to their surroundings*". The reality of this subject is such that it is no longer restricted to the domain of biology: Allenby & Graedel (1993), Atlas & Bartha (1981), Ehrlich & Roughgarden (1987), Forsyth (2013), McNaughton & Wolf (1973), Odum (1964) and Stiling (1996) have produced work focusing on a wider reach that include environmental, general, human, political, social and even industrial sectors.

For parsimonious reasons I will restrict my review to the domains of human ecology and social ecology. Zipf (1949) provided an introduction to human ecology where he postulates that individuals will select the most convenient path, which inevitably has the least amount of work in order to accomplish a task. This theory has close associations with the work of Darwin (2009) and his origin of species plus the work of Spencer (1967) who introduced the term 'survival for the fittest'. I will maintain that their work has important

connotations to the social marketing domain, in that, the wider environmental factors must be considered in social marketing if the campaigns are to be successful, this is because if they (these environmental factors) are difficult or obstructive then the task is unlikely to be completed or achieved (in a social marketing context the task is the desired behaviour change).

Human ecology is not without its critics; Duncan (1959) believes that it focuses too much on the concepts of population, environment, technology, and organization, where the unit of analysis is mainly the human population. This premise is rebuked by those scholars who use modern demographic techniques to create sub-segments of the society under investigation (Bennett, 1996; Bruhn, 1974; Hoffmeyer-Zlotnik & Warner, 2014; Lee & Mundail, 1985; Sandy, Gosling & Durant, 2013 and Voorhees, McCall & Calantone, 2011): i.e., drilling down to smaller groups of people rather than looking at the human race as a whole. Based on this rebuke one could argue that Duncan (1959) has been too literal with his interpretation of the human ecology. It could also be contested that like demography, ecology uses the population as its primary unit of study: from a research point of view it provides scholars with a means to generalise their studies.

Social ecology on the other hand presents a slightly different spin: it is based on the premise that this planet's ecological problems are a result of the many social issues that exist within it (Bookchin, 2007). More specifically, Bookchin (2007) believes that it is not the individual but society that plays a big part in creating disparities in the economic, ethnic, cultural, and gender environments. It is my belief that it cannot be one or the other (i.e., the individual or society). I maintain that humans at an individual level come together to make the society in which we live in; this is backed by the thoughts of Bronfenbrenner (2005). This means that Bookchin's (2007) premise is flawed, the individual and society should not be differentiated or considered separate disciplines. This conclusion is supported by the work of Scheiner and Willig (2008, p10) who states "*the domain of ecology is the spatial and temporal patterns of the distribution and abundance of organisms, including causes and consequences*". If we consider the organisms to be us (i.e., the human race), then it would mean that our environment changes over time and is due to the influence of individuals and society as a whole (causes and consequences: see Brehm & Rahn (1997)).

If this is the case, should social marketers focus their efforts just on the individual? As discussed in the previous chapter there is an argument against it (see also the work of Wallack et al., 1999 and Wymer 2011) and from an ecological point of view I would now like to return to Scheiner and Willig (2008) who proposed eight essential principles for the theory of ecology. This I have adapted to be more specific to the social marketing domain (see Table 3.2)

Table 3.2 The essential principles of the theory of ecology (adapted from Scheiner & Willig (2008))

-
1. Individuals exist in a in a heterogeneous manner throughout space and time.
 2. Individuals interact differently with their abiotic and biotic environments.
 3. Ecological patterns and processes are heterogeneous as a result of the different characteristics presented by individuals.
 4. The distribution of individuals and their interactions depend on a series of random and sensitive occurrences.
 5. Individuals will all have different views of their environmental conditions as in a given space and time.
 6. The resources available to individuals will be finite and heterogeneous in a given space and time.
 7. The birth and death rates will be a consequence of the interactions between individuals within the abiotic and biotic environment.
 8. The ecological properties of the human race are the result of evolution.
-

These principles demonstrate that we are all different and it is the different aspects of the ecological environment that can influence or deter individuals in adopting positive behaviours in their daily course of life: a proposition which is shared by Bronfenbrenner (2005). The importance of incorporating these different ecological environments into the social marketing domain cannot be underestimated, but as we have already discussed there are many of these

ecological models that can be utilised, but which one would be the best? I shall now focus on a number in detail and identify the pros and cons of each.

Looking at the various citation indexes of said models I can contend that Bronfenbrenner (1977, 1979, 1994 and 2005) leads the way as the preferred ecological model of scholars. There have been a number of adaptations to Bronfenbrenner's framework¹⁶ including Blum, McNeely and Nonnemaker (2001), Collins, Tapp & Pressley (2010), McLeroy et al. (1988) and Sweat & Denison (1995).

Bronfenbrenner (1977, p514) defined the ecology of human development as "*the scientific study of the progressive, mutual accommodation, throughout the life span, between a growing human organism and the changing immediate environments in which it lives, as this process is affected by relations obtaining within and between these immediate settings, as well as the larger social contexts, both formal and informal, in which the settings are embedded*". This definition was based on the work of Brim (1975), who stated that a child's development is influenced by macro structural factors related to economics, cultural values, politics, law, and sociology. Bronfenbrenner (1977, p514) took this definition and reformulated it stating "*the ecological environment is conceived topologically as a nested arrangement of structures, each contained within the next*". The original nested format as described by Bronfenbrenner is described in detail below.

3.3.1 Bronfenbrenner's Original Nested Ecological Model.

Bronfenbrenner (1977, p514) started with four nested systems, the first, a microsystem, which is defined as "*the complex relations between the developing person and environment in an immediate setting containing that person (e.g., home, school, workplace, etc.). The setting is defined as a place with particular physical features in which the participants engage in particular activities in particular roles (e.g., son, father, tutor, employer, spouse, etc.) for particular periods of time. The factors of*

¹⁶ There are many more concepts and models including those from Lewin (1935), Barker (1968), Baker & Schoggen (1973), Baker & Wright (1954), Moos (1980), McLeroy et al. (1988), Stokols (1992), Cohen et al. (2000), and Lynch and Batal (2011) even behaviourist like Jones (1972) and McGrew (1972) have considered the wider environmental issues but for parsimonious reasons the study will restrict its review to the five options highlighted above.

place, time, physical features, activity, participant, and role constitute the elements of a setting". Essentially what Bronfenbrenner had proposed was, the individual moved between a number of different spheres of influence. The bodies within these spheres have a major part in the development of the individual. In the context of this research family life, work interactions and the diabetes health education course would be classed as the different microsystems.

"The mesosystem comprises the interrelations among major settings containing the developing person at a particular point in his or her life. In sum, stated succinctly, a mesosystem is a system of microsystems" (ibid, p515). What Bronfenbrenner had proposed was, individuals experiencing the same microsystems may display very different results in terms of their development if the influences from other related microsystems vary. For this research the microsystems should be considered as the links between the diabetes health education course and the home environment and the diabetes health education course and the work environment: there can of course be many more mesosystem combinations, unfortunately this research has a limited scope and for this reason the above options will be the only ones considered.

"The exosystem is an extension of the mesosystem embracing other specific social structures, both formal and informal, that do not themselves contain the developing person but impinge upon or encompass the immediate settings in which that person is found, and thereby influence, delimit, or even determine what goes on there". (ibid, p515). In the context of diabetes health education courses it would be the policies and procedures attributed to these courses by the controlling organisation (i.e., the Department of Health, the NHS and the various PCTs). As an example, these controlling bodies would set the time, location and duration of each course. Individuals are likely to have little influence on these factors but they (i.e., the time, location and duration of each course) could have a big bearing on the development of the individual.

"The macrosystem refers to the overarching institutional patterns of the culture or subculture, such as the economic, social, educational, legal,

and political systems, of which micro-, meso-, and exosystems are the concrete manifestations" (ibid, p515). Invariably people with different backgrounds or those living in different subcultures¹⁷ will experience different pressures and forces that will influence their development.

3.4 A Review of the Adaptions to Bronfenbrenner's Work.

The above illustrates the initial work of Bronfenbrenner in his development of the ecological model. McLeroy et al. (1988) took this work and proposed five levels of influence, the first being Intrapersonal; this is defined as the characteristics of an individual that influences behaviour. They can be, amongst others, the skills, ability and knowledge of the individual in relation to the subject in question and/or the self-belief in their ability to complete the task [Bandura (1986) labelled this as self-efficacy]. This is different to Bronfenbrenner's (1977) original model, but as I will demonstrate later, Bronfenbrenner did enhance his model by including the person as a major consideration in the development process. In fact, Bronfenbrenner (1999) took it a stage further by including biological and genetic differences as a major factor in the development of the individual.

The second level proposed by McLeroy et al. (1988) is Interpersonal; this is defined as those groups and relationships that provide support, advice and identity to the individual in question. Here we can see that McLeroy et al. (1988) have focused only on the direct relationships between the parties: i.e., the contextual links are not explicitly stated. This is best explained with an example: McLeroy et al.'s (1988) interpersonal relationship is the generic interaction between the targeted individual and all relevant parties. Bronfenbrenner (1999) argues that the relationships need to be contextualised i.e., a tutor's relationship with a student is different to that relationship between the same student and his/her parent, despite the fact that they may both be trying to get the student to achieve the same goals. You may ask why is this distinction important: scholars like Davis-Kean (2005), Grusec & Goodnow (1994) and McLoyd (1990) have all shown how parents can specifically develop children whereas Kim (1998), Kram & Isabella (1985) and

¹⁷ Examples of subcultures could be an individual from South Asia living in the UK or a British expat living in France.

Sias & Cahill (1992) demonstrate the importance of the relationships of colleagues or peers in an individual's development. This illustrates the consequence of distinguishing the actual link within the developing individual: in some cases the nurturing style of a parent – child relationship is very different from the potential peer pressure that is seen in a colleagues to colleague relationship.

The third level is organisational (McLeroy et al., 1988); this is defined as the associated rules, policies, procedures and structures that would influence or constrain the individual who was being targeted for the positive behaviour change. This level is identical to Bronfenbrenner's ecosystem, although McLeroy et al. have restricted their domain to organisational policies (see level 5 where public policy is included).

The fourth level is Community (Ibid); this is defined as the community norms or customs and practices displayed and delivered by the community in which the individual belongs. McLeroy et al. (1988) have not fully defined what they mean by community: the Concise Oxford English Dictionary (Fowler & Fowler, 2011, p245) defines community as a "*body of people living in the same locality*". If it is a body of people how does one differentiate between the various cultural, religious and social disparities? Bronfenbrenner (2005) has shown that there will be developmental incongruences between these groups and a failure to include them may lead to the wrong conclusions about how best to develop a behavioural change plan.

The final level is Public Policy (McLeroy et al., 1988): this is defined as the legislation associated with the health behaviours that are being targeted to the given individual. As mentioned earlier there is already a level focusing on policy, it is unclear what value McLeroy et al. perceives they will add by introducing this difference.

Blum, McNeely & Nonnemaker's (2001) framework is similar to McLeroy et al.'s (1988) model, the difference being the Interpersonal level is divided into three groups; family, peers and schools. Blum, McNeely & Nonnemaker (2001) state that their research was based on the work of Jessor (1992) and his interrelated conceptual domains of risk factors and protective factors. It is unclear if Blum, McNeely & Nonnemaker were aware of McLeroy et al.'s work, as there are no references to it. It does however demonstrate researchers have clearly seen the

importance of the ecological dimension or as Jessor (1992, p388) stated, "*programmes that fail to engage multiple risk domains are unlikely to be successful or generate lasting effects*". It should be noted that the work of Blum, McNeely & Nonnemaker (2002) was focused on children so they restricted the review to schools. I would contend that had the research been with adults then the Interpersonal level would have been family, peers and work.

Finally, I refer to Sweat & Denison (1995), their model is made up of five nested levels and one standalone, which they have classed as technology. I shall start by looking at their stand-alone technology classification: Sweat & Denison (1995) refer to drugs and vaccines as a form of technology. I can see the relevance of this 'factor' when used in conjunction with certain health campaigns: a good example could be the Ebola crisis that affected many African countries, the drugs needed to tackle the pandemic were only experimental and in short supply (Enserink, 2014; Mullard, 2014 and Brady, Hay & Horby, 2014). Despite the lack of the required medical licences, these drugs demonstrated promising efficacy (ibid) and even the World Health Organisation had stated it was ethical to use unproven drugs in such circumstances (Brady, Hay & Horby, 2014). On reflection it is harder to see how technology can be applied to programmes related to healthy eating say. This leads me to question the relevance of such a framework from a social marketing context. I would argue that this type of factor should be embedded within the marketing mix (i.e., the product) although I appreciate that there are still those within the social marketing fraternity who are adamant that the product should just be the behaviour change required (see Peattie and Peattie, 2003).

Returning to Sweat & Denison's (1995), if we review their main nested framework we can see that it is very similar to Bronfenbrenner's (1977) ecological framework. It begins with the super-structural level: this is defined as the social justice, class, race, gender and equity that influence the behaviour changes in individuals. This similarity relates to Bronfenbrenner's (1977) macro system. I personally feel that it does cause some confusion in its interpretation, their definition has not clearly articulated why certain terms are used, i.e., what do they mean by social justice, it should be part of the structural level (see below).

Their structural level is defined as the laws and the policies that influence the behaviour changes in individuals (Sweat & Denison, 1995). This level is similar to Bronfenbrenner 's (1977) exosystem, as is their environmental level, which is defined as any environmental changes relating to a social and/or physical change that influence the behaviour changes in individuals and their individual level: defined as the psychological stimulus which influence the required behaviour changes in individuals.

In my opinion the models of McLeroy et al. (1988), Blum, McNeely & Nonnemaker (2002) and Sweat & Denison (1995) do not significantly add to the theory and knowledge of the ecological theory. Bronfenbrenner on the other hand, has continually developed his model right up till his death (Tudge et al., 2009). For this reason I will now restrict my focus to the work of Bronfenbrenner.

3.5 Bronfenbrenner's Ecological Theory.

Many readers who are familiar with the work of Bronfenbrenner will know that his ecological theory relates to the developmental of an individual (Bronfenbrenner, 1977, 1979, 1993 & 2005), whereas the concept of social marketing is all about influencing behavioural changes of the individual and the society of which they are apart (Andreasen, 1994; 2003; Kotler & Levy, 1969 and Wymer, 2010; 2011). With this in mind one could question the feasibility or viability of linking the ecological theory with social marketing. To resolve this issue we need to begin by reviewing the definition of behaviour. Like most academic definitions there is no agreed version (Bergner, 2011), there is however a scientific formula that can be employed (see Box 3.1).

Box 3.1 The Behaviour Formula (Bergner, 2011, p148)

Behaviour = I, W, K, K-H, P, A, PC, S where:

B = Behaviour (e.g., the behaviour of Peter moving his rook during a chess match)

I = Identity: the identity of the person whose behaviour it is; an aspect of every behaviour is that it is someone's behaviour (e.g., Peter)

W = Want (the motivational parameter), the state of affairs that the person seeks to bring about; an aspect of every behaviour is that it is an attempt to bring about some state of affairs (e.g., to achieve an improved strategic position in the chess match)

K = Know (the cognitive parameter): the distinctions (concepts) that are being acted on; an aspect of every behaviour is that it is a case of acting on distinctions (e.g., rook vs. queen, knight, etc.; permissible rook movements vs. non permissible ones)

K-H = Know-How (the skill or competency parameter): an aspect of every behaviour is that it entails the here and now exercise of some broader or more general competency or competencies (e.g., when Peter makes his move, he exercises his general ability to move the various chess pieces in the manner appropriate to each)

P = Performance: the process, or procedural aspects of the behaviour, including all bodily postures, movements, and processes that are involved in the behaviour; an aspect of every behaviour is that it involves the occurrence of physical processes, which processes can in principle be described at any level of analysis appropriate to the describer's needs, ranging from the very molar to the very molecular (e.g., Peter's grasping and moving the rook, or the relevant brain events transpiring as he does so). (On the DP account, a description of such molecular events is not, ontologically speaking, a description of what is "really real" about the behaviour, or of its "basic building blocks." It is, rather, a description of one aspect of the behaviour, the physical process aspect, given, one might say, "to the last decimal point.")

A = Achievement: (the outcome parameter): an aspect of every behaviour is that it is the bringing about of some outcome - something is different by virtue of the behaviour having occurred (which may or may not coincide with the desired state of affairs specified in W) (e.g., Peter's rook being in a new position; his opponent being in check)

PC = Personal Characteristics (the individual difference parameter): an aspect of every behaviour is that in its enactment personal characteristics of the behavior are expressed; these may include Dispositions (Traits, Attitudes, Interests, Styles, Values), Powers (Abilities, Knowledge), and/or Derivatives (Capacities, Embodiments, States, Statuses) (e.g., Peter's competitiveness, knowledge of chess, or tendency to prefer bold, unexpected moves)

S = Significance: what the person is doing by doing the concrete thing he or she is doing; the more inclusive pattern of behaviour enacted by virtue of enacting the behaviour in question (e.g., by making his concrete, specific move of relocating a piece of onyx from one square to another on a board, Peter is "making a chess move" and "participating in the broader social practice of playing chess"; depending on the context, he might also be gaining revenge for an earlier defeat, teaching his child the game of chess, or trying to show the world that a grand master can defeat a computer at the game of chess).

The key element of this formula is the inclusion of K-H (Know How), which is the skill or competency level of an individual and signifies the level of development of an individual (Bergner, 2011): this demonstrates that 'Know How', which is synonymous with development is a function of behaviour. Lewin (1935) also had a similar formula, he identified that behaviour (B) is a function of the Person (P) and the Environment (E), $B=f(PE)$. Lewin (1935) has not explicitly included the developmental characteristic in this formula but Bronfenbrenner (2005) proposes that development is actually a function of behaviour and time: $D=BT$ or $D=f(PE)T$. Not everyone agrees with this hypothesis, Schneider (1987) argued that the environment should be a function of the person and the behaviour $E=f(PB)$ but if we consider the work of Iwarsson & Ståhl (2003), they demonstrate that $B=f(PE)$ holds true using examples of accessibility and equality: i.e., consider an able bodied individual and one in a wheel chair, who are trying to access a shop, it can be demonstrated that the shop with only a flight of stairs as the entrance will restrict access to the person in a wheel chair. In this case it is clear that the behaviour of 'shopping' in that given store, can only be done by the able bodied individual, and thus demonstrating the importance of the environment. Even though there are no empirical studies that I am aware of that corroborate the propositions of Bergner (2011) and Bronfenbrenner (2005) I shall maintain that these examples demonstrate that development and behaviour are inextricably linked, making the application of Bronfenbrenner's (2005) ecological theory highly relevant to the field of social marketing. Having confirmed the relevance of Bronfenbrenner's (2005) ecological theory, this chapter will now focus on the intricate details of his theory.

3.6 Bronfenbrenner's Ecological Theory: a historical perspective.

Bronfenbrenner began the development of the ecology theory back in the seventies (Bronfenbrenner, 1977, 1979, 1993 & 2005): this gave rise to the nested levels of systems as described earlier (see Figure 3.6).

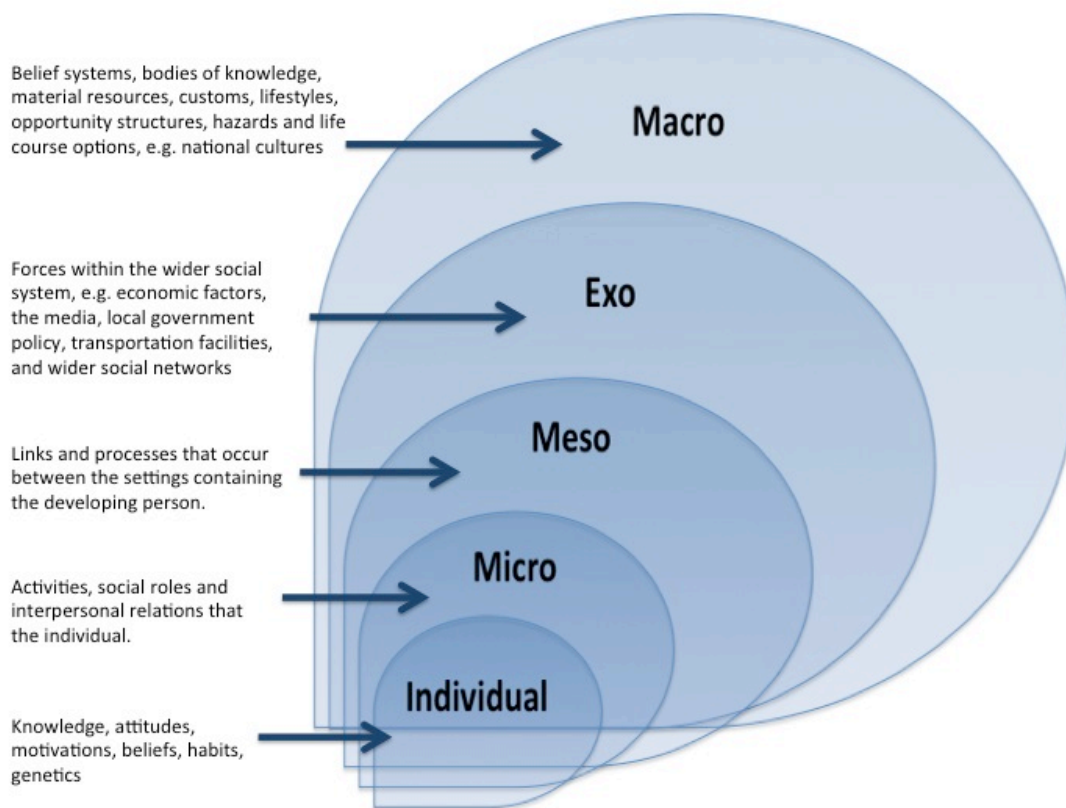


Figure 3.6 The nested levels of the Ecology Theory (adapted from Bronfenbrenner (1977))

In the late eighties and early nineties, we saw the transition of the General Ecological Model (Bronfenbrenner, 1986; 1993; Bronfenbrenner & Morris, 1998 and Bronfenbrenner & Ceci, 1993; 1994). Here two key propositions were introduced:

Proposition 1.

"Human development takes place through processes of progressively more complex reciprocal interactions between an active, evolving bio-psychological human organism and the persons, objects, and symbols in its immediate external environments. To be effective, the interaction must occur on a fairly regular basis over extended periods of time. Such enduring forms of interaction in the immediate environment are referred to as proximal processes" (Bronfenbrenner, 2005, p5).

Proposition 2.

"The form, power, content and direction of the proximal process affecting development vary systematically as a joint function of the characteristics

of the developing person, the environment - both immediate and more remote - in which the processes are taking place, the nature of the developmental outcomes under consideration, and the social continuities and changes occurring over time during the historical period through which the person has lived" (ibid, p5).

Scholars who integrate proposition one and two into their research will be embarking on a study using the 'process - person - context model' (PPC) (Bronfenbrenner, 1994). This General Ecological Model also introduced the concept of the 'Chronosystem': it provides the environments being investigated with a third dimension, the passage of time (ibid). In this case Bronfenbrenner was trying to demonstrate that the changes in the 'life course' of an individual over time are also influenced by the changes in the individual's wider environmental connections (ibid). Bronfenbrenner cited the research of Eider's (1974) study on the Children of the Great Depression: Eider (1974) demonstrated that the development of these individuals changed when their parents had lost their jobs. The children had to refrain from their studies and take on work to help support the family. One could surmise that this is essentially a movement along a hierarchy of needs (Maslow, 1943): the children have to progress through to a setting of 'safety and survival' to help provide security for the family. It is appreciated that the concept of Maslow's hierarchy of needs is now dated and that scholars like Kenrick et al. (2010) Neher (1991) and Tay & Diener (2011) have all criticised it. I have included it because I believe that the use of Maslow's theory is a simple way to demonstrate that in certain circumstances an individual will move away from the expected development and behaviour traits to focus on what they perceive as more important safety / survival needs. An alternative concept that I could have used is Alderfer's (1969) Existence, Relatedness and Growth (ERG) Theory: this is a development of Maslow's hierarchy of needs and is a reduction of the latent variables. He argued that it provides a better method for measuring the movements in research (ibid). There is a concern that its ability to generalise the results would be limited to experimental cases only (Caulton, 2012).

Returning to Eider's (1974) example, there is an argument that the proposition overcomes the concerns raised by Collins, Tapp & Pressley (2010), Helmig & Thaler (2010), Rothschild (1999) and Wallack et al. (1993) in that the wider environmental factors over a given period of time must be considered if social

marketers are truly going to get individuals and society to change. As it is closely linked to Bronfenbrenner's (1977, 1979, 1993 & 2005) ecology theory, then that too must overcome the same concerns. There are other aspects of the ecology theory that are important to social marketers: if we consider Bronfenbrenner's (2005) first proposition, one could claim that the reciprocal interactions between an active human and its external environments is in fact the mechanisms developed by the social marketer and their targeted audience through the campaign development process. An example would be a social marketing advert and the associated promotional material, which is designed to be interactive (even if it is just reading, watching or listening the collateral). The success of the campaign is proportional to the time it is aired as proposed by Tellis & Ambler (2007), who demonstrated that the effectiveness of advertising is linked to the time it is run. I have already presented the issue of time, its reoccurrence demonstrates the importance of the factor and it also reveals a gap in the theory and knowledge associated to social marketing.

Taking the issue of timing a stage further, it has been highlighted that there is not a great deal of research to explain the key drivers associated with time in a promotional activity (Gijzenberg, 2009), although most scholars will now agree that pulsing advertising schedules are the most optimal (Gijzenberg, 2009 and Mahajan & Muller, 1986). This has not always been the case, Zielske, (1959) and Sasieni, (1989) had argued that constant advertising schedules were the most optimal. Either way, it does demonstrate that timings play an important part in the process of influencing behaviour change.

Bronfenbrenner's (1986; 1993; 2005) adaption to the ecology theory can be applauded for including the concept of time, but from a marketing perspective we need to consider the impact of 'wear-out' effects. This thought was introduced by Mesak (1992) and Naik et al. (1998), wear-out is a phenomenon that can be split into three areas, repetition wear-out, copy wear-out and ad quality restoration (Nerlove and Arrow, 1962). I appreciate that the notion again relates to advertising and that the social marketing paradigm is more than just promotion, however when adapted to the developmental process proposed by Bronfenbrenner and the various campaigns that are produced by social marketers this can be seen as a major conation that has not been considered by the domain yet. Time clearly plays an important part, more importantly, in terms of Bronfenbrenner's (2005, p5) first proposition where he

states that “*human development takes place through processes of progressively more complex reciprocal interactions...*” the issue of complex reciprocal interactions may not be relevant for social marketers, their focus could be on developing ‘fresh and interesting interactions’ to maintain the engagement with the target audience. Unfortunately, this premise is not within the scope of this research, it should however be designated for future studies. Nevertheless, the development of the concept of time transformed the PCC model into the PPCT model (Person, process, concept and time).

Another major development of the ecological theory by Bronfenbrenner came in the early nineties when the role of genetics was introduced by Bronfenbrenner & Ceci (1993). They proposed that the proportion of the total phenotypic¹⁸ variance that is due to additive genetic variation (see Cavalli-Sforza & Bodmer, (1971) which is otherwise known as heritability) would differ depending on the proximal processes being used. This variance is proportional to the effect of the proximal processes and the nature of its surrounding environment. To put it into perspective with this research, one example could be the comparison of a diabetes health education course being delivered to identical twins. The first course lasts for a morning and is delivered by an inexperienced educator in a dark church hall. This would arguably be not as effective as the second course, which runs for 6 weeks and is delivered by an experienced diabetic nurse in a bright new hall. Some may argue that the question of ‘heritability’ or ‘genetic variation’ would be irrelevant to social marketers as they would normally be non-clinicians and would be unable to differentiate between the various groups. I say that there will be different identifiable segments that must be consider when developing social marketing campaigns. As an example people who are blind, deaf or have some form of other disability are genetically different from the vast population in any society, so in terms of a segment they are easily identifiable. They will have specific needs and there are now laws that must be adhered to, like the Equality Act (2010). As it stands I am unable to locate any research relating to social marketing that deals with the issue of inclusiveness within the campaign development process. It is a gap, which this research may bridge. It is this genetic variation that convinced Bronfenbrenner (2005) to rename his model

¹⁸ Phenotypic is the “physical and biochemical characteristics of an organism as determined by the interaction of its genetic constitution and the environment” (Fowler & Fowler, 2011, p911).

the Bio-ecology Theory which, still uses the PPCT model as its main foundations.

3.7 The Person-Process-Context-Time (PPCT) Model.

The underlying principle of the PPCT model is that it takes targeted individuals, where a developmental change is needed and examines all the active ecological factors that support or hinder the process (Weisner, 2008). More importantly these changes are considered at different points in time (ibid). Another differentiator of the PPCT model is that researchers have to examine each sphere of influence in greater depth: the classification of results by 'person type' is no longer good enough (Bronfenbrenner, 2005). The PPCT model has to look for connections at every level of the ecological model (ibid). It encourages researchers to study settings where the developing individual spends time (Rosa & Tudge, 2013). This guidance is important for my research as the combinations of diverse settings could result in the study becoming untenable due to the size and number of different options: as a result, I will need to limit my scope in relation to these different combinations. Rosa & Tudge (2013) also stipulate that the researcher should focus on those individuals where the developmental interaction takes place (an example would be, if you were examining the development of a child learning to play football, then the focus should be on the pitch with the coaching team and the friends he or she plays football with): this must also be viewed across the spectrum of time (historical, current and future).

A key trait of Bronfenbrenner's (1974, 1975) research is it should be informed by social policy. This is an important aspect of the model, as it will be a central driver of my PhD. Bronfenbrenner's (1979) adopted this stance because he believes that contemporary studies of human development are often viewed out of context, i.e., there is no relationship between the developing person and their changing micro and macro environments: this belief has been extended to his PPCT model (Bronfenbrenner, 2005). In relation to the PPCT model, it will now be worth spending a moment considering each element in detail.

3.7.1 The Person.

The 'Person' should clearly be distinguished in any ecological research because of the differing personal characteristics they have (i.e., age, sex, biological conditions etc.). These characteristics should be examined to see how they might mediate or moderate the results of the research (Bronfenbrenner, 1988 & 1989). It is important to note that in relation to the bio-ecological theory, the person is inextricably linked to a heritability factor (Bronfenbrenner & Ceci, 1994), which is defined as the proportion of variation between individuals, in a given population, due to a genetic variation (Visscher, Hill & Wray, 2008). This value should not be associated to a specific individual of the study but must be taken as a sample of the population being examined (ibid). From a marketing perspective, this approach could make it easier to target certain groups and should be considered as another form of segmentation. To put it into perspective, a study by Carlson and Buskist (1997) identified that there was very little genetic variation in the hair colour of Inuit people: the heritability relating to their hair was 0. The closer the heritability value is to zero the less likely there is of a deviation, i.e., indigenous people from Africa will have dark skin. From a social marketing perspective, particularly when it is focused on a specific health issue there is an argument that heritability is an important means of classifying individuals. The use of heritability as a means to categorise individuals has its critics: as an example Kinderman (2005) believes that using heritability for psychological processes is invalid because there has not been a large enough dataset to conduct the necessary multivariate analysis to support the argument. Tesser (1993) counters this with examples from a number of case studies: this demonstrates a clear difference of opinions between the positivistic and interpretivist approaches.

The underlying importance of including the person is based on the fact that they are "complex biopsychological organisms" (Bronfenbrenner, 1993, p7), making them intrinsic in their own development through the differing ranges of thought, feelings and actions that they cycle through (ibid). The inclusion ensures that variations in 'person traits' and context can be measured.

Returning to the issue of policy (i.e., policy has a clear influence on driving outcomes): research programmes that are designed with the bio-ecological theory in mind are likely to enhance positive outcomes particularly when the context of the person and the policy are considered (Bronfenbrenner, 1999). More specifically it is when the policy provides uninhibited accessibility to a programme: such a move enhances the emotional relationship between the individual and the desired developmental outcome (Bronfenbrenner, 2000 & 2001): this links to the work of Hastings (2003) and social marketing (see section 2.12), highlighting the importance of relationships in the social marketing process. Bronfenbrenner (2005) goes on to say that relationships can be associated to people, objects and symbols (in the context of this research it could be the Diabetes Nurse, the Diabetes course, Diabetes UK and the NHS). Such relationships become irrelevant if they are not inextricably linked to the 'Person': an example of this will be seen later in this research where it was identified that individuals from a black, minority ethnic background were less likely to engage with Diabetes UK.

3.7.2 The Process.

The 'Process' or 'Proximal Process' as it is formally known as, is "any enduring forms of interaction in the immediate environment" (Bronfenbrenner, 2005, p5). As Bronfenbrenner used the term 'any' to classify the interactions it would be reasonable to argue that social marketing campaigns can be associated to the process element of the PPCT model, particularly as they occur over a specific period of time. It is worth highlighting that Rosa & Tudge (2013) identified that key facet of the 'Process' is its influence with the family (which, we have already seen, is part of the microsystem). This is because Bronfenbrenner spent many years examining the family as an institution (Tudge, 2013): arguably such an importance must mean that it has to play a key part in any research associated with Bronfenbrenner's bio-ecological theory. This guidance has informed my own research: I have made the family microsystem an integral part of my review.

Returning to the factor of genetics, this development led Bronfenbrenner & Ceci (1994, p572) to propose a number of Hypothesis, the first being,

“proximal processes raise levels of effective developmental functioning, and thereby increase the proportion of individual differences attributable to actualized genetic potential for such outcomes”. Broadly speaking, what Bronfenbrenner & Ceci (1994) are inferring here is, the concept of heritability is maximised when the proximal processes is most appropriate and minimised when it is not. To put this in context with social marketing it means that the campaigns produced should be tailored for the specific targeted market. It also confirms the importance of Andreasens (2002) benchmark criteria: i.e., understanding the customer.

The second hypothesis from Bronfenbrenner & Ceci (1994 p578) states that the *“proximal processes actualize genetic potentials both for enhancing functional competence and for reducing degrees of dysfunction”*. They go on to say that the *“power of proximal processes to actualize genetic potentials for developmental competence will be greater in advantaged and stable environments than in those that are disadvantaged and disorganized”* (ibid p578). In relation to social marketing it again demonstrates the importance of developing an appropriate campaign and the need to segment the market, as an example, the provision of braille material to support a behaviour change of blind person with telephone access for support is likely to yield better results than just providing the same person with a printed booklet. As highlighted in section 3.6, the elements associated to the person and process within the PPCT model are relatively new in relation to the ecological model. Its main foundations have been the context, which will now be discussed.

3.7.3 The Context.

The ‘Context’, as identified in section 3.3.1, refers to four levels: the microsystem, the mesosystem, the exosystem and the macrosystem. A major benefit of maintaining this mnemonic is that it acts as ‘icons’ for researchers to rally around and provides a valuable role in always keeping ecology and human development together in mind (Weisner, 2008). “Making human beings human reminds us that this was not always the case, that human development needs to be much more about settings

and contexts rather than exclusively about individual differences, and that this intellectual project, so importantly influenced by Urie Bronfenbrenner, requires constant renewal and investment for new generations” (Weisner, 2008 P261). As this thesis has already discussed the literature in detail it is proposed to move to the final element of time.

3.7.4 The Time.

As mentioned, the final element of the model is ‘Time’, it builds on what Bronfenbrenner (1988) had initially described as the chronosystem. The PPCT model considers both ontogenetic and historical time (Rosa & Tudge, 2013). More specifically there are three levels: macrotime, mesotime and microtime (Bronfenbrenner & Morris, 1998). Macrotime focuses on the changing expectations and events in the larger society, both within and across generations, mesotime relates to the number of reoccurring episodes of the proximal process and the microtime is the duration for each episode (ibid). In the context of this research it can be seen as the acceptance by healthcare professionals that patient empowerment has become key, which is facilitated through health education courses; the mesotime relates to when the courses are run, i.e., every week for six weeks; and the micro time relates to the length of each course, i.e., four hours per session.

All of the above demonstrates that Bronfenbrenner has a clear journey of the development of the ecological theory: the PPCT being the final element of the journey. There is a word of warning however, Rosa & Tudge (2013) argue that too many scholars believe that the ecological model only focuses on the influence of context (the term ‘context’ refers to the nested systems discussed in section 3.3.1) on a child’s or adolescent’s development. Their studies have identified elements of confusion where no clarity has been provided as to the version being considered. An example of this is Collins, Tapp & Pressley’s (2010) Social Ecological Framework, details of which will now be discussed.

The evidence above demonstrates that an ecological approach to social marketing will overcome the various gaps that were identified in chapter 2. It is unsurprising to see a number of social marketing scholars now starting to use the theory in their research. It is the work of Collins, Tapp and Pressley (2010)

that is of most interest to this research. The remainder of this chapter will focus in detail on their proposition, which is the social ecological framework.

3.8 Social Ecological Framework.

Collins, Tapp and Pressley’s (2010) Social Ecological Framework (SEF) is an adaptation of the work of Bronfenbrenner’s (1979), Stokols (1996) and Gregson et al.’s (2001). The primary foundations of the SEF utilise Bronfenbrenner’s (1979) nested system approach (see Figure 3.6 above). In addition to the gaps that I have already identified, Collins, Tapp and Pressley (2010) and Stokols (1996) believe that an ecological approach is needed for those programmes that tackle complex issues (i.e., obesity). This means that such an approach would also be relevant for diabetes management.

The SEF utilises a structured approach in that each of the nested levels will be examined for its positive and negative impacts on the campaign in question (see Figure 3.7).

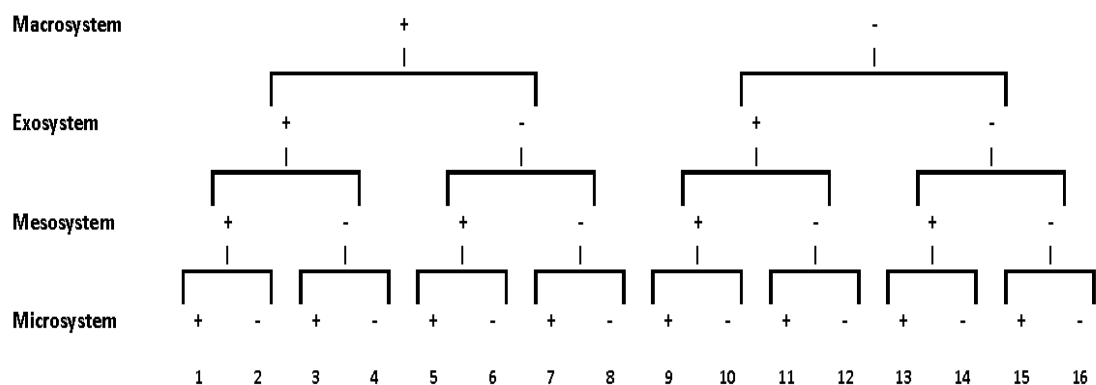


Figure 3.7 The SEF’s Theoretical Scenarios (Collins, Tapp & Pressley, 2010, p1185).

These negative and / or positive impacts create a path of sixteen possible options, this will lead a social marketer to a number of scenarios (see Appendix 10). These scenarios can be used to help produce strategies and tactics to support the behaviour change. On inspection it is evident that the SEF has not used the latest iteration of Bronfenbrenner’s (2005) ecological theory: the PPCT development is an area that could enhance the SEF. Tudge et al. (2009) has argued that researches should properly represent the theory they are using to avoid confusion about the foundations of their research: they

go on to say that using the older versions of Bronfenbrenner's theory is not a flaw. I believe that Collins, Tapp & Pressley (2010) have set a solid foundation that I can build upon: it is this foundation that I intend to use as a basis for my thesis. Collins, Tapp & Pressley (2010) constructed the SEF using secondary data and have encouraged others to enhance the process.

3.9 Conclusion.

It is clear from the above that the ecological theory has many advantages over the other behaviour change theories in that it is able to take into consideration the wider environmental factors that are linked a given targeted audience. The weakness of the ecological theory is its lack of clarity in dealing with individuals who are unwilling to change. There is nothing to stop a practitioner or researcher to incorporate the ecological framework into one or many of the other behaviour change theories. This approach ensures that the campaign(s) being utilised are tailored for the desired market.

The details above also demonstrate that Bronfenbrenner's Bio-Ecological is the most advanced in its conceptual design because he has worked over a number of decades to overcome many of the issues and criticisms that have been levied on it. Based on this fact it must be the most appropriate ecological model to use.

It has also been demonstrated that using an ecological framework in social marketing could overcome the gaps identified by Collins, Tapp & Pressley (2010), Helmig & Thaler (2010), Rothschild (1999) and Wallack et al. (1993). Collins, Tapp & Pressley (2010) had begun the process of incorporating the theory into social marketing; they do however acknowledge that their research is the beginning of a new journey and have encourage others to take it forward. This is what I hope my thesis will do, using a case study that focuses on diabetes structured education. The next chapter will help the reader understand the implications of diabetes and the importance of diabetes education. It will also demonstrate how diabetes education fits within the domain of social marketing.

Chapter 4: Diabetes and Structured Health Education.

4.1 Introduction

This chapter will give the reader an insight into diabetes and diabetes structure health education. Its objective is to demonstrate the importance of this research, the impact on society and the connection with social marketing. Impact, in the context of research, is seen as that which provides a demonstrable outcome to society and the economy (ESRC, n.d.). It is hoped that, with the support of Diabetes UK, this research will be able to influence policy and practice within the NHS. This type of approach will arguably fit into the 'Instrumental' category of the Economic and Social Research Council impact definition (ESRC, n.d.), making it a 'high impact project'.

The chapter will start by defining diabetes, it then looks at diabetes at a global level before focusing in on diabetes in the United Kingdom, more specifically England. It finishes by considering diabetes structure health education and how it fits within the domain of social marketing.

4.2 What is Diabetes?

Diabetes is classed as a chronic disease, the definition of a chronic disease is one that has no cure but can be controlled (CMCD, n.d.). There are two reasons why diabetes occurs, the first is when the pancreas cannot not produce enough insulin to move sugar into the cells of a body (to create energy) and the second is when the body is unable to use the insulin it generates (Egan & Dinneen, 2014). Diabetics will have raised blood sugar levels (Hyperglycaemia), which can lead to serious damage to the body's systems (ibid). Egan & Dinneen (2014) have placed diabetes into four categories: Type I, Type II, gestational diabetes (affects women during pregnancy) and other types of diabetes. This study will only be focusing on Type I and Type II diabetes.

The main difference between Type I and Type II is, those individuals living with Type I diabetes need daily insulin injections to survive. Whereas Type II

Diabetics can manage their conditions by adjusting their diet and life style, but generally need some form of medication (NIH, 2013). In the context of using social marketing to positively change health behaviours we can see that Type I is imminent (i.e., if left unchecked it would lead to coma and death (Egan & Dinneen, 2014)), it also tends to be diagnosed in juveniles. Conversely, those issues related to Type II may not present themselves till many years down the line, Type II tends to be diagnosed in adults. The ratio of Type I to Type II in England is 15 : 85 (DoH, 2012).

NHS Choices (2014) provide the following guidance for people living with Type II diabetes. They constitute the positive behaviour changes that individuals are expected to adhere to:

- Individuals should regularly check their blood glucose levels (HbA1c). This requires a blood glucose meter, which although is normally provided with a set of instructions advice and guidance is still needed to ensure individuals understand exactly what they are doing (i.e., a behaviour change is being instilled within the patient).
- Individuals are asked to adapt their diets; they must also understand how different foods can react with their diabetes. More specifically they should count the carbohydrates they consume and select low-glycemic-index foods.
- Taking part in regular physical activities is also another important behaviour change as exercise can lower blood glucose levels.
- Individuals with diabetes should give up smoking and reduce their alcohol intake because they have an increased risk of developing a cardiovascular disease.
- Diabetics need to pay special consideration to their feet: the poor blood circulation and blood glucose will damage the nerves causing foot ulcer and infections.

- Diabetics should also regularly see an optician to check for diabetic retinopathy: this can cause blindness if left untreated.

Individuals with Type I diabetes also have to adhere to the above guidelines. In addition to this they need to learn how to manage their insulin, which is normally delivered via a pump or through insulin injections. These are behaviour changes that require on going advice and support.

The points above illustrate that the behaviour change requirements for those individuals living with diabetes are varied and complex. From a social marketing perspective most studies tend to focus on singular behaviour changes, this makes my research interesting from a theory and knowledge enhancement point of view.

4.3 The Global Impact of Diabetes.

The World Health Organisation (WHO) have identified that there are 347 million people living with diabetes (WHO, 2014). WHO (2013) have estimated that the prevalence of diabetes (Type I and Type II) averages to be just under 10% of the global population and is consistent across all countries (see Figure 4.1). It is also predicted to become the seventh leading cause of deaths by 2030 (ibid).

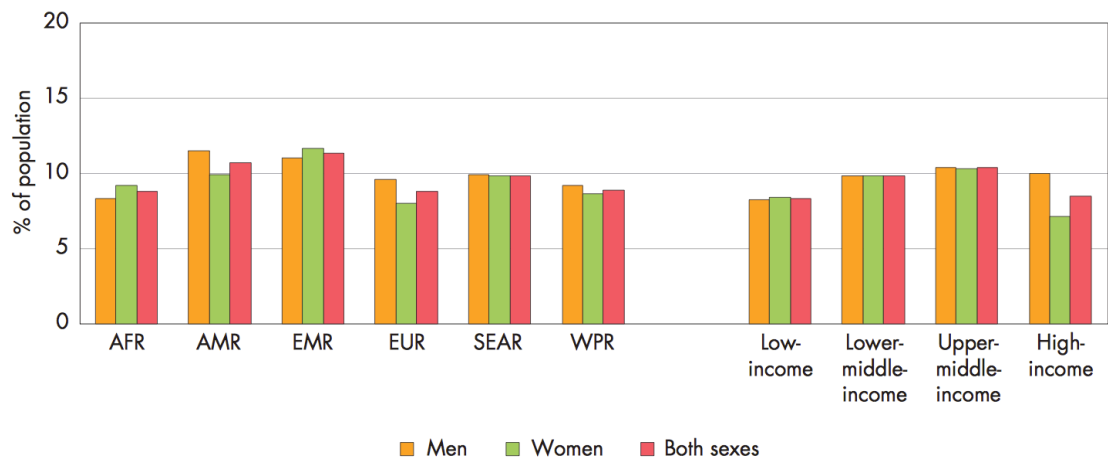


Figure 4.1 Age-standardized prevalence of diabetes 2008

Note: AFR=African Region, AMR=Region of the Americas, EMR= Eastern Mediterranean Region, EUR= European Region, SEAR=South-East Asia Region, WPR=Western Pacific Region. Figures are of adults aged 25+ years (WHO, 2013, p16)

The International Diabetes Federation (IDF) has calculated that diabetes (both Type I and Type II) accounted for 11% of the global healthcare expenditure in 2014 (IDF, 2014). IDF have also estimated that diabetes causes (and will continue to be) a large economic burden on global national healthcare systems, those individuals and their families living with diabetes and the countries they live in.

4.4 Diabetes in the UK.

In the UK, diabetes affects over 3.2 million people (DoH, 2012). There are an estimated further 630,000 individuals who are unaware that they have the condition (ibid). England accounts for 2.7 million of these individuals (those who have been diagnosed) with approximately 10% being Type I diabetics (NHS England, 2014). It should be noted that individuals from South Asia or who have a black ethnic background are more likely to develop Type II diabetes (HSCIC, 2006). Diabetes cost NHS England just under £10 billion in direct expenses in 2010/2011, approximately 10% of the total health resource expenditure (NHS England, 2014). This is in line with the total global spend as identified by WHO above. These figures are set to rise and will become unsustainable if nothing is done (ibid). One way of tackling this issue is by introducing supporting self-care, which includes structured education as an important part of the process (DoH & DUK, 2005).

4.5 Diabetes Structured Education.

The National Service Framework (NSF) is a set of guidelines and strategies that set clear quality requirements for care with evidence based treatments and/or services that work effectively for patients (NHS Choices, 2014). Standard three of the diabetes' NSF states that: *"all children, young people and adults with diabetes will receive a service which encourages partnership and decision-making, supports them in managing their diabetes and helps them to adopt and maintain a healthy lifestyle"* (DoH, n.d., p5). This is achieved through structured education (ibid).

Structured diabetes education is designed to help those individuals living with diabetes (and their families) to improve their knowledge, skills and confidence

of the condition (NHS England, 2014). It should enable these individuals to take increasing control of the management of their diabetes and reduce the burden on the already over stretched health system (ibid).

Structured diabetes education programmes follow very similar traits to social marketing programmes, Table 4.1 illustrates these similarities by comparing the curriculum requirements with Andreasen's (2002) benchmark criteria:

Table 4.1: Comparisons between the diabetes health education and Andreasen's (2002) Benchmark Criteria.

Curriculum Requirements	Benchmark Criteria
<ul style="list-style-type: none"> • Be person centred incorporating the assessment of individual learning needs; • Be reliable, valid, relevant and comprehensive; • Be theory driven and evidence based; • Be flexible and able to cope with diversity; • Be able to use different teaching media; • Be resource effective and have supporting materials; • Be written down. 	<ul style="list-style-type: none"> • Behaviour change - the intervention seeks to change behaviour and has specific measurable behavioural Objectives. • Consumer research - formative research is conducted to identify consumer characteristics and needs. • Segmentation and targeting - different segmentation variables are used and a strategy tailored to the segments. • Marketing mix - the intervention must consist of communications plus at least one other 'P' • Exchange - the intervention considers what will motivate people to engage voluntarily and offers them something beneficial in return, whether that is intangible or tangible. • Competition - the intervention considers the appeal of competing behaviours.

Based on the points in table 4.1, I would argue that these structured education courses should be 'person centred' focusing on an individual's learning needs. This means that some form of consumer research will be required, which is best done by marketers: it will identify the consumer's characteristics and needs. This also means that courses should be market segment based and target individuals whose needs are similar. Such an approach would provide the inclusivity expected by individuals who are asked to attend a course, which in turn deals with the diverse cultures and requirements that may exist in that market. I would also contest that to be reliable, valid, relevant and comprehensive the course has to focus on the behaviour change requirements and it has to deal with the exchanges and competition associated with said

changes. Courses that are theory driven and evidence base, will fit the NSMC's (n.d.) adapted benchmark criteria. Finally the use of diverse teaching material and resource effective demonstrates a link to the marketing mix. What the curriculum does not include is the way it is communicated and promoted to the targeted market, which in my opinion, is a major failing and why its integration into social marketing is so important.

In terms of the efficacy of structured education programmes, NICE have an evidence portal housing all clinical trials. There is a list containing 2912 articles (as at the 23/04/2015) reviewing the evidence and efficacy of diabetes structured education courses (NICE, n.d.).

The following box is a summary of the evidence provided by Tidy (2014):

Initial abstracts of preliminary research findings were presented at the Diabetes UK annual conference in 2005. The main points were as follows:

Illness beliefs do not match the medical model for many newly diagnosed type 2 patients, and beliefs about the impact, and the future prognosis of diabetes, are correlated with depressive symptomatology at diagnosis.

Pilot data indicated the DESMOND course for newly diagnosed individuals changed important illness beliefs. At three-month follow-up there was a reported improvement in quality of life and metabolic control (Skinner et al., 2006)

A larger randomised controlled trial was conducted involving 824 adult patients in 207 general practices in 13 primary care sites in the UK. The results showed that, compared with patients who did not undergo the DESMOND Programme, there were greater improvements in weight loss and smoking cessation and positive improvements in beliefs about illness but there were no differences in HbA1c levels up to 12 months after diagnosis (Davies et al., 2008)

In the late 1990s, Diabetes UK funded a trial to assess the effect of attendance at a DAFNE course on diabetic control and quality of life measures: After six months, those who had attended the course had a fall in HbA1c of 1% compared with a control group, sustained at around 0.5% at one year after the course.

Despite an increase in the number of injections and blood tests, those attending a DAFNE course reported an improvement in their quality of life and increased satisfaction with their treatment.

Another important finding was that of the many areas in their lives in which they reported improvements, the largest increase was observed in the area of freedom to eat as they liked.

Research has shown that this improvement in glycaemic control is not at the expense of more frequent episodes of hypoglycaemia; in fact, the opposite was true with those attending the course having fewer episodes (Samann et al., 2005).

A study of patients undergoing insulin initiation as part of a structured educational programme showed that they had a better quality of life compared with patients who were on insulin but had not undergone an educational programme (Braun et al., 2008)

One study using a single educational intervention within the normal clinical setting showed long-lasting benefits (Lowe et al., 2008)

This data demonstrates that structured education works well when patients engage with it. Diabetes UK (2013) identified that only 4.2% of people living with diabetes are being offered structured education to support the management of their condition. They have called for radical improvements to the provision of these courses with the aim of increasing uptake (ibid).

4.6 Conclusion.

Diabetes is a disease that can affect anyone; its prevalence is growing, yet this can be curtailed by adopting healthier behaviour traits. NICE and NHS England have identified that structured health education courses can facilitate such changes: unfortunately, the accessibility and uptake of these courses is poor. It was also identified that these courses can be considered as one of the social marketing facets used to support the required behaviour change requirements. The remainder of this thesis will identify the issues related to accessibility and uptake and present a proposal on how such a programmes can be managed and controlled better using the PPCT model as the theoretical framework.

Chapter 5: Objectives, Philosophy, Methodology and Design.

5.1 Research Objectives.

The aim of this research was to establish if the Social Ecological Framework (SEF) that was originally introduced by Collins, Tapp & Pressley (2010) could be enhanced by integrating Bronfenbrenner's (2005) Process, Person, Context and Time model. Implicit within the objective was the need to demonstrate how to operationalize the framework so that other practitioners and researchers could easily replicate the model for their own needs.

5.1.1 Questions.

The primary research question was:

How do you enhance the SEF by incorporating the Person, Process Context and Time (PPCT) model as described in Bronfenbrenner's bio-ecological theory?

To answer this question, my research project used a single case study, which was the application of diabetes structured health education programmes in England. With this in mind I produced three secondary questions:

1. Are structured health education courses employed to support the management of diabetes successfully engaging patients in England?
2. What do patients and healthcare providers think of structured health education courses?
3. Do structured health education courses employed to support the management of diabetes need enhancing, if so, how?

5.1.2 Research Contribution.

My research project will contribute to the theory and knowledge of social marketing by addressing a number of gaps that were identified during the literature review. The first relates to the concerns raised by Andreason (2006), Collins, Tapp & Pressley (2010), Hasting & Donovan (2002), Helmig & Thaler (2010), Rothschild (1999), Thaler & Sunstein (2008), Wallack (1984) and Wallack et al. (1993). They believe that the majority of research associated with social marketing only focused on providing solutions for the individual.

Secondly, this research addresses the fact that the SEF was based on the Bronfenbrenner's original ecological theory: a model which Bronfenbrenner (2005) himself stated was flawed. Enhancing the SEF model with Bronfenbrenner's latest developments should resolve these flaws and provide a better solution for social marketers who wish to adopt an ecological framework.

The final contribution of this study addresses Collins, Tapp & Pressley (2010, p1193) call to action to "*test the SEF against a wider variety of available social marketing case studies, more specifically, are some social marketing interventions more likely to work than others?*" They also identify the new skills needed for social marketers to apply such a framework, this included developing a value chain of delivery in partnership with other specialisms (ibid).

Ultimately, my goal is to provide an adapted SEF model that will allow social marketers to deal with the variety of stakeholders and constraints that they may experience when catering for the wide spectrum of requirements along a social ecological continuum.

5.2 The Research Philosophy.

Before considering the research process, I needed to review the methods used by other scholars and practitioners in testing their adaptations of the Ecological Theory. It was clear that a complete range of methodologies (and thus, philosophies) have already successfully been employed. A sample of those reviewed are listed below:

Warren (2005) looked at 306 low-income, predominately African American mothers. The objective was to identify how these individuals could influence their children's television viewing habits. Warren's (2005) research was based on several existing studies: he wanted to adapt these using Bronfenbrenner's ecological model. In this example Warren only focused on the macro and microelements of Bronfenbrenner's ecological theory. Warren (2005) used a hypothesis (based on similar studies associated with African American mothers) to test the process with a quantitative means. This demonstrated that Warren's research was built on positivist foundations. My study could not adopt such an approach, as there were no theories, concepts or findings linking positive behaviour changes of individuals living with diabetes to wider ecological factors that I was aware of.

Bopp and Cebula (2009) presented a study that investigated hospital expenditures at the state level (USA) so that they could identify what drivers were causing the large variations in costs. They focused only secondary data utilising specific financial reports including the American Hospital Association's Statistics volume from 2005, Census Bureau Publications, Centre for Disease Control Morbidity and the National Diabetes Surveillance System reports. Even though they were successful in identifying the ecological links that drove the cost variations, such an approach would not be appropriate for this study because there is no secondary data available which specifically looks at why certain individuals choose to attend (or not) structured diabetes educational courses.

Wideen, Mayer-Smith and Moon (1998) used a meta-analysis approach to establish how an ecological perspective on 'inquiry' was the best way for managing the 'learning to teach' process. They reviewed 93 empirical studies before reaching their conclusion. It demonstrates that the use of ecological models is highly prevalent in education; unfortunately this is not the case in social marketing, as such it is not relevant to my study.

Lynch and Batal's (2011) research on the factors that influenced childcare provider's decision on food and mealtime recipes used qualitative methods focusing specifically on semi-structured interviewing. These

interviews were guided by theory and past research on similar subjects. It can be an ideal approach to adopt when concentrating on a single cohort of participants. Elements of this approach, i.e., the semi-structured interviewing, were adopted for my study. This is because a semi-structured interviewing process allows the researcher to deviate the questioning when an unanticipated response was presented (Flick, 2014). It also gives the researcher the opportunity to explore and understand the said response in greater depth (ibid). As a total approach it could be argued that a simple qualitative review would not be appropriate for my study because of the need to question a variety of stakeholders and the need to review information from different sources.

Tudge et al. (2003) used a mixed methods approach to study an ecological dilemma. They used community based ethnographic techniques and quantitative questionnaires to examine how the wider environmental factors could influence a child transitioning from nursery to school (interestingly they do not explicitly state that the study was a mixed methods one, choosing instead to focus on the quantitative, positivistic aspects of it). The study took four years to complete: this allowed the researchers to test the longitudinal impact of time. Such an approach is not appropriate for a doctoral study as doctoral programmes are constrained by their own timeframes. I would also contest that the ethnographic approach is not appropriate when conducting research over a wide geographical area and when there is a minimal budget to manage it.

Lindridge et al. (2013) used their research to investigate how the Social Ecological Model of health behaviour in social marketing communication might achieve a desired behaviour change in a targeted set of individuals. They used a reflexive, mixed methods case study approach and examined a variety of primary and secondary data sources to evaluate the problem. The process was also split into two parts, part one focused specifically on the targeted individuals and part two investigated how the needs of the targeted individuals were used to design the campaign model. Their study is very similar to my own doctoral research project, as such I felt it was appropriate to adopt many of the techniques that they had used.

Looking at the above examples it could be argued that there is no single method that should be employed when tackling a research problem focusing on the wider ecological issues. The research design would be dependent on the problem and the researcher's philosophical beliefs, or as Gray (2013, p19) put it:

"The choice of methods will be influenced by the research methodology chosen, which in turn will be influenced by the theoretical perspectives adopted which in turn is influenced by the epistemological stance."

Taking into account Guba and Lincoln's (1982) recommendations on research methodologies I will contend that an individual's philosophical beliefs should be a way of reflecting their own assumptions of the world they live in. Looking at it from another perspective, there is no way of testing if one belief is better than another. Schuh and Barab (2008) have built on this premise by stating that all philosophical beliefs should be based on three key factors. The first is epistemology, this addresses the "*origins, nature, methods and limits of human knowledge*" (Reber, 1995, p256). The second is ontology (or the metaphysics of philosophy) which addresses the nature of reality viewed in the eyes of the researcher (Reber, 1995) and the third is Units of Analysis, this dictates how a researcher will set their 'limits of exploitation' i.e., what groups, factors or categories they have chosen to focus on and how they will measure it.

Based on the discussions highlighted above, I can now state that my research was based on a pragmatic philosophical stance using a constructive epistemology and pluralist ontology. The focus therefore, will be on developing methodologies that are linked to practical results. They will be built on the experiences that I have gained in the field of social marketing as a practitioner:

"To the constructivist, concepts, models, theories, and so on are viable if they prove adequate in the contexts in which they were created" (Von Glasersfeld 1995, p7).

So the concepts that have been employed are ones that I have considered to be best for this research: this was based on a review of how other scholars have tackled similar problems as discussed earlier. From a pluralist point of view all questions are likely to have more than one answer. This is because as Hales

(2001) stated: reality consists of more than two types of matter. This means that the study is not looking for theoretical saturation, it is merely looking to demonstrate that there will be a variation of requirements from the various stakeholders being interviewed.

The concept of reviewing the researcher's method of measuring the data is one that is not often written about (Reber, 1995). It tends to be implicit within the methodology. By stating it within the design, a study can ensure that the philosophical paradigm selected is the right one, i.e., for this research the units of analysis will vary throughout the process, it will be a mixture of the participant's own understanding and interpretation of the situation; the researcher's understanding and interpretation of the situation and any hard facts about the subject under investigation (ibid). This demonstrates that the methodology being employed is neither positivistic nor interpretivistic.

It should be noted that the research programme is being sponsored by Diabetes UK, they have given me access to their members (without infringing any elements of the Data Protection Act 1998). Diabetes is also a unique condition because there are a number of variants including Type I and Type II (DOH, 2012). As identified in Chapter 4, individuals living with Type I and Type II diabetes are genetically different. These differences allowed me to test Bronfenbrenner's (2005) proposition that genetic differences will have an impact on an individual's development and thus behaviour. Let's now look at the approach in detail.

5.3 Methodology.

The methodology approach for this research programme was a mixed-methods one, focusing on a single case study: the provision of diabetes structured education courses through NHS England. Many traditionalists may argue that research should either adopt a positivist or interpretivist stance; the mixed-method process is neither but is now known as the "*third methodological movement*" (Creswell & Clark, 2011, p1). It came to prominence in the late fifties when Campbell and Fiske (1959) introduced the term 'multi-trait/multi-method research'. Campbell and Fiske's (1959) article is viewed as the one that formalized the practice of mixed method research (Johnson, Onwuegbuzie & Turner, 2007). Back then the focus was on triangulation (i.e., "*taking a*

different perspective of an issue under study” (Flick, 2014, p184)), these days the mixed-methods approach can be used to investigate a multitude of problems, Figure 5.1 to Figure 5.6 summaries the various possibilities:

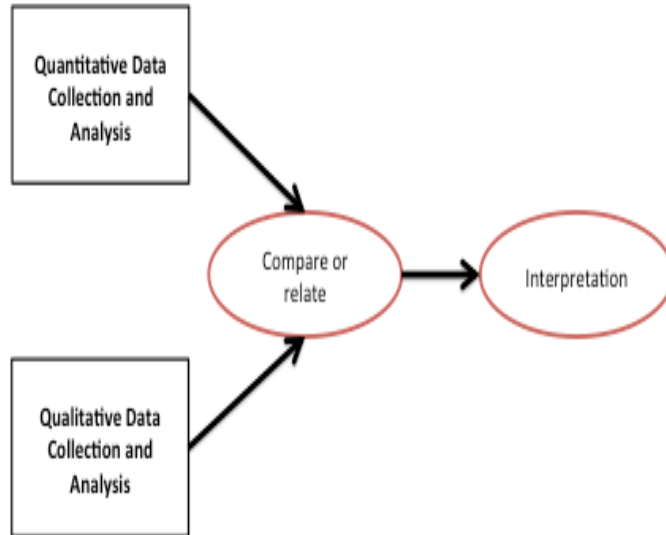


Figure 5.1: The Convergent Parallel Design (adapted from Creswell & Clark, 2011)



Figure 5.2: The Explanatory Sequential Design (adapted from Creswell & Clark, 2011)



Figure 5.3: The Exploratory Sequential Design (adapted from Creswell & Clark, 2011)

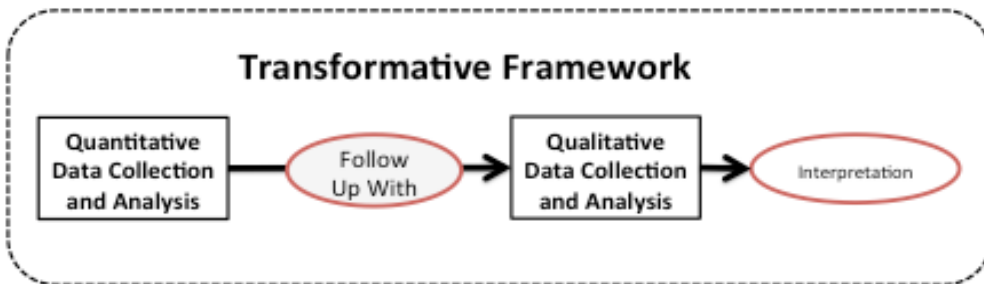


Figure 5.4: The Transformative Design (adapted from Creswell & Clark, 2011)

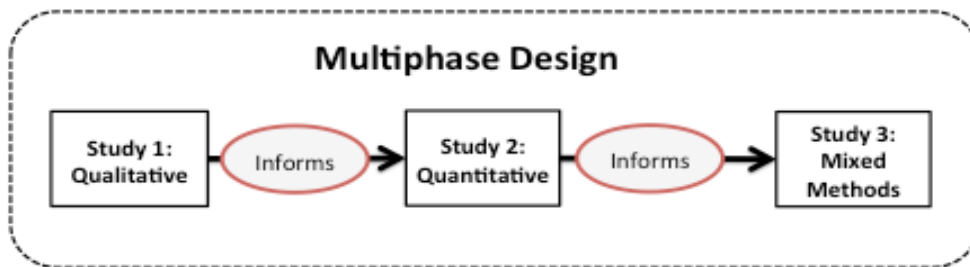


Figure 5.5: The Multiphase Design (adapted from Creswell & Clark, 2011)

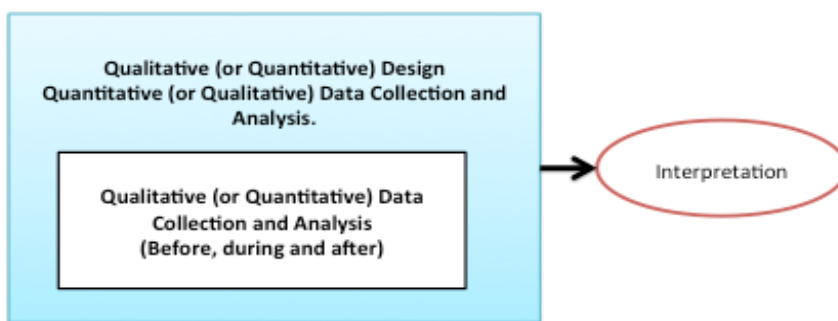


Figure 5.6: The Embedded Design (adapted from Creswell & Clark, 2011)

An analysis of the approaches highlighted in Figure 5.1 to Figure 5.6 have demonstrated that the mixed-method approach requires a combination of both qualitative and quantitative analysis. In reality this does not have to be the case; Yin (2006) has argued that studies using different types of the same

research methodology from the same paradigm (i.e., two types of qualitative studies) can still be classed as mix-methods. There is also no edict that requires a mixed method approach to have a fifty-fifty split of qualitative and quantitative data.

As a pragmatist, I have taken the view that using the mixed method option should not restrict scholars and practitioners to only one of the six options highlighted above. For this reason I have chosen to adopt and adapt both the convergent parallel and multiphase designs. Figure 5.7 illustrates the methodological summary used for my research.

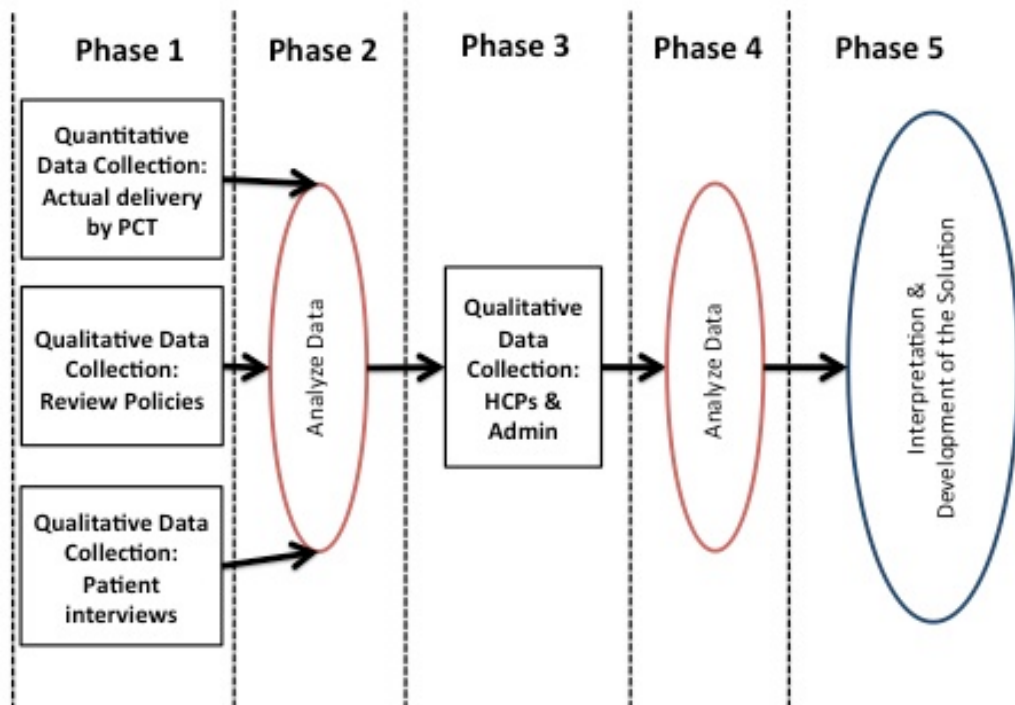


Figure 5.7: The Study’s Methodological Summary.

The reasons for embracing such an approach is because my study deals with a variety of stakeholders identified through a selection of data sources along the whole spectrum of the ecological framework that is associated with diabetes health education throughout NHS England. I will contest that no single method would be able to provide the answers needed to satisfy the research objectives. In relation to the data source, four distinct groups were identified; this is illustrated in Table 5.1:

Table 5.1: Data profile requirements for the study.

A breakdown of the data profiles that were used to support the research.

Data Profile Requirements
<p>Group one, primary data: the experiences related to the different types of diabetes health education courses for those individuals living with either Type I or Type II diabetes in England.</p>
<p>Group two primary data: a snap shot of what every Primary Care Trust provided to individuals living with diabetes in England.</p>
<p>Group three secondary data: a review of the policies associated with diabetes care and diabetes health education courses in England.</p>
<p>Group four primary data: the experiences of healthcare professionals and administrators providing diabetes health education courses in England.</p>

The study was split into five distinct phases, the first phase focused on understanding why only certain individuals who live with diabetes choose to attend a diabetes structured education course and why others did not. This phase also reviewed the service provisions in different geographical locations throughout England (i.e., what each Primary Care Trust (PCT) had provided in terms of diabetes structured education programmes). The final element of this phase was the review of national policies and care pathways for diabetes structured education.

The second phase was the analysis and interpretation of the data obtained. The core objective of this phase was to identify and establish the themes/codes and relate them back to each contextual element of the ecological theory (i.e., Bronfenbrenner’s (2005) Process, Person, Context and Time (PPCT) model). It was also used to develop part of the semi-structured questionnaire for the HCPs / administrators and helped identify which individuals to target.

Phase three focused on interviewing the HCPs and administrators. It had a number of objectives; the first was to establish who the key stakeholders were in the process (and compare them with the patient’s interpretation), it then identified their roles and responsibilities. This phase was finished by determining the views of the HCPs and administrators on why individuals living with diabetes decided to attend (or not attend) a structured education course.

Phase four examined, analysed and interpreted the data from phase three. Like phase two, it’s core objective was to identify and establish the themes and relate them back to each contextual element of the ecological theory (i.e., Bronfenbrenner’s (2005) PPCT model).

Phase five was used to interpret all the data by putting the themes and codes into context then drawing a conclusion or a number of conclusions for each context. The impact of each stakeholder was then examined: it focused specifically on his or her influence and contribution to each element of the ecological context. It also identified how significant the role of the PPCT model was to the process. Much of the analysis in this phase was done through a customer value chain review (CVCA).

5.4 Customer Value Chain Analysis.

Customer value chain analysis (CVCA) is a way of consolidating the relevant points portrayed through the ‘voice of all the stakeholders’ (Donaldson, Ishii & Sheppard, 2006). It was introduced to support the development of a product or service with the customer’s wants and needs in mind (ibid). Some of you may argue that my research did not have the objective of developing a product or service, as such the use of the CVCA process would be irrelevant. I contest that it is because it can be adapted to analyse the efficacy of a research process in the context of viewing the ‘touch points¹⁹’ of all stakeholders that influence the said research. The ultimate goal was to develop a new framework that can be used specifically for designing new social marketing campaigns: to get there, such a framework needs to be tested against an existing social marketing campaign.

The model used in this research was an adaption of the customer value chain analysis (CVCA) protocols proposed by Donaldson, Ishii and Sheppard (2006) and Crain and Abraham (2008). The reasons for utilizing this methodology are twofold:

1. Collins, Tapp and Pressley (2011) recommend some form of value chain analysis as the best process to use to develop their model.
2. The CVCA approach is ideal because it gives *“design teams the ability to recognise diverse product requirements and their relative priority when undertaking a product definition assessment”* (Crain and Abraham,

¹⁹ For this research the term ‘touch point’ will relate to the degree of influence over the design of the structured education course and the influence on an individual (living with diabetes) to attend such a course.

2008, p174). In this case I would see some form of product definition assessment²⁰ (PDA) as the process for identifying those key factors, which the desired customer would believe to be important for them to engage with the campaign. This should draw the customer (or potential customer) to interact with the product or service. These key factors will be identified through the semi-structured interviewing process.

It will be demonstrated that the product definition assessment (PDA) will be a key part of the review process because it not only considers the whole chain it also focuses specifically on the end customer's needs, which in this case are those individuals living with diabetes.

The final phase of this research brought together all the findings and results so that the new enhanced SEF could be developed. The integration of the various models was tested iteratively using an adapted PDA built with Wilson's (1990) model and Andreasen (1994) benchmark criteria.

It should be noted that the qualitative elements of the study used Thematic Analysis (Braun & Clarke, 2006), Content Analysis (Hsieh & Shannon, 2005) and Policy Analysis (Dunn, 2003) methods. Thematic Analysis is a way of identifying, analysing then reporting on the resulting key themes (Braun & Clarke, 2006). Content Analysis is a means to determine the existence of certain concepts within a set of texts [i.e., the transcripts] (Hsieh & Shannon, 2005). Content Analysis was used as a deductive means to test the relevance of Bronfenbrenner's theory. Finally, Policy Analysis is a means of examining the effectiveness of a given policy (Dunn, 2003). It was used to identify those issues classed as an exosystem (Bronfenbrenner, 2005) and how policy helped or hindered the whole PPCT model. The data for the qualitative element was obtained by semi-structured interviews and policy review. The policies considered were identified through an analysis of the diabetes care pathway.

All of the qualitative elements of this study were designed to be both deductive and inductive. The deductive element had the objective of demonstrating the

²⁰ Product definition assessments were originally used by product engineers in to identify those factors that could be used to differentiate successful from unsuccessful project deliveries (Wilson, 1990). I believe that the same principles can be applied in marketing in the development of campaigns.

relevance of Bronfenbrenners’s Bio-Ecological Theory in relation to social marketing: we are all different and require a variety of drivers along the ecological continuum to help us shape our behaviours (Bronfenbrenner, 2005).

The deductive element also searched for given codes along the ecological continuum using a content analysis framework. The reader will no doubt appreciate that there could be an infinite number of options associated with this element. It is for this reason that the semi-structured interview schedule’s primary questions²¹ were restricted to those aspects relating to:

- The individual.
- The structured education courses flexibility (i.e., day, evening and weekend provisions).
- The individual’s family.
- The individual’s employment status.
- The individual’s cultural background and religious beliefs.
- The length of the structured education courses.

The quantitative element of the study was based on a patient participant questionnaire (see Appendix 1) and a census to target the 152 Primary Care Trusts in NHS England (See Appendix 4). The analysis of the patient participant questionnaire was founded on a variety of statistical tests to confirm a series of hypothesis based on Bronfenbrenner’s (2005) Bio-ecological theory (see Table 5.2).

Table 5.2: The research Hypothesis used for this study..

H₀₁: Genetically different individuals will have equal attitudes towards engaging in diabetes health education courses and changing their behaviour (in relation to diabetes).

H₀₂: Participants are equally likely to engage with the non-flexible and flexible courses.

H_{03a}: Genetically different individuals will have an equal reliance on the DHEC micro-system in the management of their diabetes.

²¹ The questions were developed in a pilot study, which for parsimonious are not included in this thesis. I used a focus group of educators and social marketers from the Expert Patients Programme CIC to identify a set of questions, which could be related to each element of the Bronfenbrenners’ (2005) PPCT model.

H_{03b}: Genetically different individuals will have an equal reliance on the family micro-system in the management of their diabetes.

H_{03c}: genetically different individuals will have an equal reliance on the work micro-system in the management of their diabetes.

H_{04a}:The family-DHEC meso-system will have an equal effect on influencing families with and without school age children to attend a standard DHEC .

H_{04c}: The Work-DHEC meso-system will have an equal effect on influencing employed and unemployed individuals to attend a standard DHEC .

H₀₅:There is an equal opportunity of being offered or not offered a place on the DHEC.

H_{06a}: The Cultural macro-system will have an equal effect on influencing individuals to attend a standard DHEC (i.e., run Mon – Fri, between 9 and 5) compared to all other macro-systems .

H_{06b}: The long term unemployment macro-system will have an equal effect on influencing individuals to attend a standard DHEC (i.e., run Mon – Fri, between 9 and 5) compared to all other macro-systems.

H₇: There is an equal opportunity of believing that long courses will have an equal impact influencing behaviour change as short courses.

The results were also presented as descriptive statistic to support or contradict the findings of the qualitative element. The analysis of the census was presented through descriptive statistics. To get a better picture of this research I will now examine the details of each method.

5.5 Research Methods.

5.5.1 Ethics Approval

Before undertaking any studies involving human participant, every research establishment must ensure that their researchers abide by its

country's legislative requirements (i.e., in the UK it would be the Data Protection Act 1998). Researchers must also adhere to the 1947 Nuremberg Code, the 1964 Helsinki Declaration and the Economic and Social Research Council's (ESRC) Framework for Research Ethics (ESRC, 2012). The underlying principles are:

"Research subjects must be informed fully about the purpose, methods and intended possible uses of the research, what their participation in the research entails and what risks, if any, are involved and Research participants must participate in a voluntary way, free from any coercion" (ESRC, 2012).

Before any work could commence, this study had to seek ethics approval from the University of Hull (which has the above practices embedded into its procedures). In addition to this, as it had gained support from Diabetes UK and was working with individuals living with diabetes and healthcare professionals from NHS England, it required ethics approval from both of these bodies. Each had its own application process, the NHS required submissions through their Integrated Research Application Systems (IRAS) while Diabetes UK merely required researchers to demonstrate that ethics approval had been obtained from their own research establishments.

An important aspect of the process was the ability to demonstrate that informed consent was obtained from all participants before beginning. The programme had to ensure that research participants were given the opportunity of withdrawing at any point during the process and that their personal details would remain anonymous. With this in mind, my study had a procedure to destroy all information that could link an individual to a piece of information after each interview (i.e., names, e-mails, addresses and contact numbers). The record would simply be classified with a three digit sequential number. This meant that the research not only complied with the various ethical constraints of the participating parties, it ensured that the processing of information was carried out in accordance with the requirements of the Data Protection Act (DPA) 1998.

5.5.2 Phase 1a: Interviewing Patients.

5.5.2.1 Sampling.

To be successful this research needed to identify individuals with Type I and Type II diabetes that live in England. Diabetes UK agreed to support the programme by providing access to their members. Adverts (see Figure 5.8) were placed in their member's magazine, 'Balance' and on their digital forum.

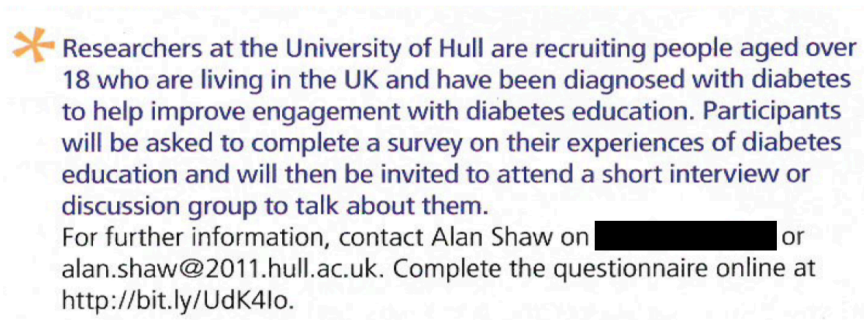


Figure 5.8 The Printed Advert In Diabetes UK's Balance Magazine

The objective of the advert was to identify a cross section of individuals covering the length and breadth of England to take part in a qualitative semi-structured interview, there was also an online survey that included elements of the semi structured interview which could be used to test the statistical significance of the findings. The questionnaire (see Appendix 1) was designed to establish the participant's basic demographic information, which was used to classify them into a number of categories. The questionnaire was also used to test elements of the ecology theory in relation to diabetes structured education.

The online questionnaire was developed using a tool called Surveys.IE (www.surveys.ie): this is a 'pay as you go' platform that is compatible with SPSS. It also allows users to design surveys in a variety of formats. One of the problems of using a web based survey tool is that many of them will produce output URLs that are long and cumbersome. In this case the original was:

<http://surveys.ie/Run/SRx.aspx?SurveyId=2a9ff877-7e3a-4c2e-a2b0-b8b699f8b894&PageId=272bb4de-c6a0-4b2e-b88c-74a7202ec48d&Ox=StrategicPlanet>

To make the survey more accessible, particularly as the advert was in a print format, a URL Shortening platform was used to convert the original link into a more ‘user friendly’ length. There are many options to select, the one I selected was Bitly.com purely because I was familiar it. The final URL link was bit.ly/UdK4Io.

In line with the ethics requirements, the first page of the online questionnaire would explain the research objectives and provide an electronic means for obtaining informed consent, see Figure 5.9. The second page was the means used to gain the informed consent needed to continue with the research (see Figure 5.10).

Participant Information Data:

Title of research: What are the Social Marketing drivers that influence health behaviour changes for individuals living with diabetes?

Who can take part? People aged over 18 who have been diagnosed with diabetes and are living in England.

What is the research about? Research studies have shown that diabetes education courses (like DAFNE, DESMOND and X-pert) can help to improve self-management and quality of life for people with diabetes. However, recruiting people to these courses can be difficult and many people choose not to participate. This research will consider the best ways to engage large audiences without the need for expensive advertising campaigns.


How will it benefit people with diabetes? This research will build on the success of diabetes education courses by working out the best ways to engage people with diabetes and encourage them to take part. It will benefit people with diabetes by increasing inclusion, awareness, understanding and participation in education courses at a greatly reduced cost.



What will taking part involve for participants? Individuals who are interested in taking part should complete this questionnaire.

How do I get more information? Please contact the lead investigator (Alan Shaw via Tel: [redacted] or Email: alan.Shaw@2011.hull.ac.uk).

Are there any risks involved in taking part? The information provided by participants will be made anonymous and kept strictly confidential by the research team.

If you are happy to continue please click the next button.



Powered by SensorPro

Figure 5.9 The first page of the online survey tool.

Informed Consent




By continuing with this online survey you:

1. Confirm that you have read and understood the Participant Information Data as seen on the previous sheet.
2. You have had the opportunity to consider the information, ask questions (please send a separate email or phone the researcher on the number below) and have had these answered satisfactorily.
3. You understand that your participation is voluntary and that you are free to withdraw at any time, without giving any reason, without your medical care or legal rights being affected.
4. If you are unhappy with any aspect of this research you can make a complaint to the University of Hull: should you wish to do so your initial point of contact will be the Research Supervisor: Dr Stephan Dahl whose email is s.dahl@hull.ac.uk . If he is unable to resolve your issues it will be escalated to the University's Ethics Committee.

Alan Shaw
Doctoral Researcher

Marketing & Business Strategy, Hull University Business School, University of Hull Cottingham Road, Hull, HU6 7RX
e: alan.shaw@2011.hull.ac.uk m: [REDACTED]

If you are happy to continue please click the next button.

Powered by SensorPro

Figure 5.10 The second page of the online survey tool: gaining informed consent

At the end of the questionnaire a request was made for volunteers to take part in a telephone interview to find out even more about their thoughts and experiences of diabetes structured education programmes. It should be noted that the study would have preferred interviewing the participants on a ‘face-to-face’ basis. Unfortunately, due to financial and timing limitations, I took the decision of restricting the study to telephone interviews only: interviews would be required across England and they would take place at a time that was convenient to the participant, this may have been early mornings or late evenings. The cost of running ‘face-to-face’ interviews would be too prohibitive. I had also considered using a webinar platform or Skype as a means of conducting the survey, but experience has shown me that not all of the potential participants would have access to this type of technology.

On the plus side, the use of the online questionnaire was an ideal way of getting a purposive sample, i.e., one that allows the researcher to select

individuals who meet certain criteria (Fleck, 2014). The profile of the purposive sample is illustrated in Table 5.3. Bronfenbrenner’s (2005) theory states that behaviour change is related to an individual’s circumstances. This meant that the study could select and focused on the require categories as the questionnaire had highlighted a range of individuals who fitted the purposive sample. Age will be considered as a sub-category but its inclusion will be dependent on the final profile obtained: to include it from the beginning would have substantially increased the sample size. It would have also been interesting to have included a measure of social class, unfortunately resource and time constraints meant that this could not be done.

Table 5.3 The Purposive Sampling Profile

Note: responsible for young family means looking after children who are preschool age.

Ref	Core Factors				Represented Factors							
	Diabetes Type	Gender	Employment Status	Cultural Background	London	Southern	North & West Midlands	North East	Eastern	Responsible for young family	Have attended a DHEC	Have not attended a DHEC
1	Type 1	Male	Employed	White / European								
2				BME								
3			Unemployed	White / European								
4				BME								
5		Female	Employed	White / European								
6				BME								
7			Unemployed	White / European								
8				BME								
9	Type 2	Male	Employed	White / European								
10				BME								
11			Unemployed	White / European								
12				BME								
13		Female	Employed	White / European								
14				BME								
15			Unemployed	White / European								
16				BME								

The patient participants (for the interviews) were selected from five different regions across England (see figure 5.11). The reason why I chose to do this was because it was the minimum number of sectors that England could be segregated into (in my opinion): the four corners and London. Making it any larger would have increased the numbers of participants that needed interviewing: this would have made the study too cumbersome and unmanageable.



Figure 5.11; The sample sectors across England.

Another important aspect of the purposive sample was the need to identify individuals who had different experiences of structured education (i.e., a selection was needed from individuals who had attended the various NHS approved diabetes courses and those that had not). Bronfenbrenner (2005) stated that there must be at least two processes being investigated, so for this research not only are there groups that have and have not attended a diabetes course, there are also those associated to Type I diabetes and a second cohort associated with Type II diabetes. It can be seen that each group contained an equal number of people who had and had not attended a course. The reality of the research was such that it provided tests against a range of processes because of the variation in courses and people that existed in England for each of these two types of diabetes²².

The context element of the study focused on those aspects that the individual had direct control. The first was the consideration of the micro element, this looked at the immediate environment associated with the

²² NHS England provided each PCT with the opportunity to set up their own course, this has led to a proliferation of programmes, some lasting for half a day, others up to 8 sessions over 8 weeks.

individual, it related to family, work and the diabetes structured education courses. As an example, it established how being responsible for looking after a family had influenced that individual's ability to attend or not attend a diabetes structured education course. The study then considered the meso environment: this was restricted to the interactions between the family plus diabetes structured education and work plus diabetes structured education. Finally, the element of the context review looked at how the macro environments would influence an individual. The questions used related to religious beliefs, cultural heritage and their ability to understand English.

It is hope that the reader would appreciate that there are many more factors in the ecological environment that could be considered. This is why the semi-structured interviewing process was adopted: any other themes that presented outside of the main content analysis framework were investigated in greater detail.

Based on the criteria highlighted above I was able to identify 32 interviewees, two from each element of the core factors²³ with an even spread across the represented areas. Some may question the logic of selecting 32 participants: this was the smallest number of individuals that fitted the required purposive sampling model. It should be noted that the analysis had not opted for a theoretical saturation approach as it was looking to demonstrate that human behaviour is shaped by a variety of environmental influences. In this case it started with the person, their families, their work, the institutions that were directly associated with the required behaviour change and the cultural background of the individual (Bronfenbrenner, 2005).

Literature has also identified that the mean number of participants in a qualitative study is 31 [using a sample of 2533 studies] (Mason, 2010). My research has 32 individuals with diabetes and 14 healthcare professionals / administrators, which is above this mean identified by Mason (2010). It can therefore be argued that my study's targeted

²³ The core factors are those identified in table 5.2, i.e., they were either they Type I or Type II, male or female and were either employed or unemployed.

number of participants should be sufficient to provide the results needed to satisfy the research objectives.

When considering the element of time, Bronfenbrenner (2005) recommends that researchers carry out longitudinal studies. Due to the restrictions related to a PhD it was not possible to do this. There are other elements of time that can be considered, they include understanding the impact of time on the process, i.e., what did participants think about those courses that lasted over one day versus those that took place over a six week period: this is what my study focused on.

5.5.2.2 Interviews.

The interview process used for the questioning of individuals living with diabetes was a semi-structured one. As mentioned earlier, due to budget constraints the interviews were completed by telephoning each participant. Even though the participants had already seen the Information Sheet and had given consent, each were reminded about the research objectives, they were also informed that it was part of a doctoral programme being run by the University of Hull, they were told that their answers would be anonymous and that they had the option to withdraw at any point without any detriment to themselves. All the interviews were recorded to allow me to focus specifically on the answers and to drill down into those areas that were thought to be significant to the project. Using the principles of constructivism, the 'drill down' process relied on my personal experience to build on the answers but as a framework the concept of 'who, what, where, when and why'²⁴ was used to establish why an individual behaved the way they did.

A copy of the interview schedule can be seen in appendix 2. It started with identifying the key demographic data about the participant so that the results could be categorized into specific groups. The remainder of the schedule was then designed to focus specifically on the elements of the Person, Process, Context and Time model as described earlier.

²⁴ The who, what, where and when questioning format was used to confirm the purposive marking grid and the why was the detail reasons on the decision to attend or not.

5.5.2.3 Transcribing.

Transcribing would take place immediately after each interview. Every word would be included, to help identify any intonations the following codes were used which were adapted from Drew (2005), see Table 5.4:

Table 5.4: Transcribing Conventions.

The Transcribing Conventions Used (Drew, 2005).

(1)	Pauses: the number in the bracket represents the time in seconds that the participant paused between speaking.
:::	Words that had an extended sound to them were depicted with colons, the number used were in proportion to the length of the stretch.
<u>Word</u>	An underlined word demonstrates stress or emphasis.
-	A hyphen was used to indicate a word is broken off.
.hhh	.hhh was used to demonstrate an audible intake of breath.
WORD	Words written in capital indicate an increase in amplitude.
(Words)	Brackets were used to bound any uncertain words during the transcription, they also include the transcriber's best guess.

A specific piece of software was also used to manage the process: NCH's Express Scribe Transcription Software. This allowed the researcher to slow down the speed of the recording to aid typing. It also had the facility to incorporate a foot pedal, which increased the efficiency of the process. Even though the task was slow and laborious it was an ideal way of familiarizing oneself with the data (ibid).

5.5.2.4 Analysis of Data: Content.

Content analysis is a research method used to evaluate written, verbal or visual communication messages (Cole, 1988). It is a means of testing theoretical issues (Elo & Kyngäs, 2008) and makes it ideal for confirming Bronfenbrenner's (1994, 2005) Bio-ecology Theory in relation to people living with diabetes. Content analysis can be used as a deductive or inductive process (Elo & Kyngäs, 2008), this study utilised the deductive approach. The process had three phases (see Figure 5.12).

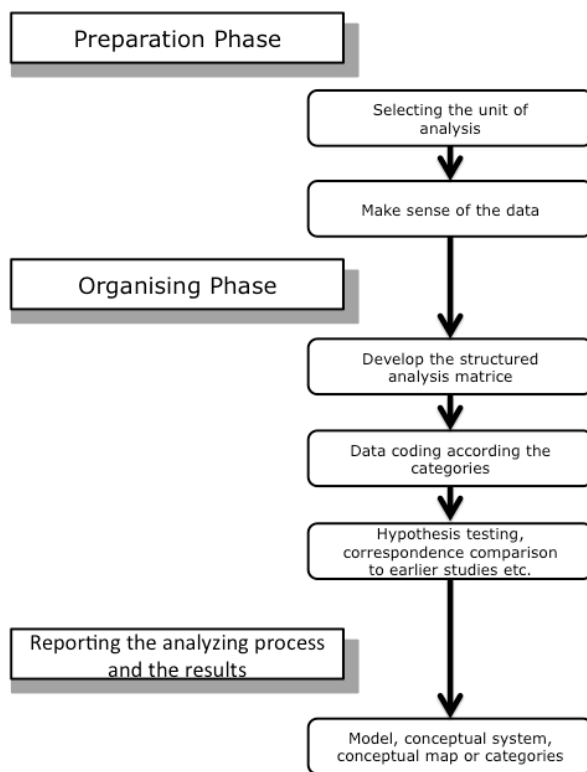


Figure 5.12: The Content Analysis Process (Adapted from Elo & Kyngäs, 2008)

Phase 1: Preparation.

Select the unit of analysis: this study had set its unit of analysis as those individuals (adults), living in England with diabetes through the medium of semi-structured interviews.

Make sense of the data: this aspect of the process was the transcribing of the data obtained through the semi-structured interviews.

Phase 2: Organising.

Develop the structured analysing matrices: in this instance the analysing matrices was based on the propositions of Bronfenbrenner (2005). It focused on a limited number of factors associated with the PPCT model (see Figure 5.13). The questioning used a semi-structured format (see appendix 2), which was also used to identify new possible new themes. It should be noted that factors associated with the exo-system were not considered in this review.

Data coding according to the categories: for each interview completed, the codebook was marked as either positive, negative or not relevant (see Figure 5.13): in this section the Mesosystem was excluded because the patient participants could not directly influence it. Positive marks were reflected as those factors that supported or influenced the individual to attend a structured education course. Negative marks were reflected as those factors that hindered the individual to attend a structured education course. Ambivalent responses were left blank. These findings were supported by the testing of their statistical significances.

	Employed + - NR	Unemployed + - NR	Retired + - NR	White/European + - NR	BME + - NR	Dependants + - NR	Non-dependants + - NR
Person							
Process Flexible Course Non Flexible Course							
Microsystem Family Work DHEC							
Mesosystem Family - DHEC Work - DHEC							
Macrosystem Language specific courses Gender specific courses							
Time Long course (over 6-8 sessions) Medium length course (over 2 to 5 sessions) Short course (1 session: half or full day)							

Figure 5.13: Content Analysis Code Book Template.
(Note, NR = not relevant)

Note: In this instance the Exo system was not considered because this element of the research was with the patient participants who had no influence over such systems.

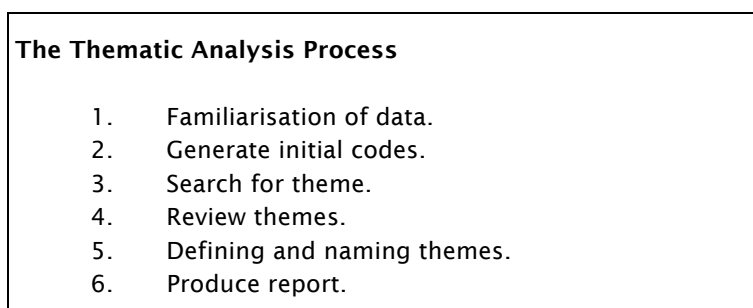
Correspondence comparison to earlier studies: there were no specific studies that could be directly compared to this research. What it did was demonstrate that a snap-shot of randomly selected individuals will exhibit the profile of differences that Bronfenbrenner (2005) had predicted.

Phase 3: Reporting Results.

Production of the conceptual map and model: the completed codebook was summarised with the numbers of each positive, negative and non-relevant factors identified. This was also presented as a graphical representation.

5.5.2.5 Analysis of Data: Thematic.

The inductive element of this research used an adaptive version of the Thematic process as proposed by Braun & Clarke (2008). Their version is depicted in Box 5.1.



Box 5.1: The Thematic Analysis Process (Braun & Clarke, 2008, p87).

Braun and Clarke (2008) stated that researchers should start by familiarizing themselves with the data, this was done by reading and re-reading the information obtained. They also recommended that researchers involve themselves in the transcription phase, as it is seen as the ideal way to understanding what was really said (ibid). The researcher would then generate an initial set of codes, these codes can be a single word or a short sentence: its primary objective is to tag elements of the data so that a researcher can filter the source and bring together every element of the research that related to that particular tag. Once this is done the researcher has to search for themes: a way of grouping together all your initial coding. When this is complete, a review, in detail of each theme is made with the objective of identifying their meaning. Braun & Clarke (2008) call this phase “defining and naming”, another option, as I did, is to provide the name during the “search for themes” phase, however there is nothing to stop a researcher from renaming the theme

at a later point in time if they felt it more appropriate (ibid). The final element of the thematic process is to produce the research report.

It can be argued that the methods proposed by Braun and Clarke (2008) were originally designed to focus on a single cohort of individuals. This research was a mixed method one which had a number of different subjects to review. As such, the study had to adopt an iterative approach of reviewing and re-reviewing the data. The first phase of the study was also used to help develop the questions needed for the HCPs and administrators (the third phase of the study). This third phase was designed to establish if the HCPs and administrators were aware of their patient's current behaviour and to establish the key stakeholders in the whole process. The platform used to identify the Themes was NVivo. This is an electronic software programme designed to analyse qualitative data (QSR n.d.).

5.5.3 Phase 1b: The Diabetes Health Education Course Census.

The census was designed to establish what each PCT in England had done in relation to providing diabetes structured education courses for a specific period of time. It is somewhat unfortunate that this study was instigated during a stage when the NHS was going through a period of change: the PCTs were being disbanded and new Clinical Commissioning Groups (CCGs) were being created. After a number of initial discussions with various service providers of the structured diabetes education courses within the NHS, I made the decision to focus only on what the historical PCTs had provided during the financial year of 2011/2012. The 2012/2013 period was a time when the transition had started: it would have meant comparing PCT and CCG data, which would have been misleading and confusing.

A simple questionnaire (see appendix 4) was sent to all 152 PCTs using the Freedom of Information request process. This meant that each PCT had a legal obligation to complete the questionnaire, ensuring that the research would gain responses from the whole population making it a census. Such a method was an effective and efficient way of targeting the

exact person who would be responsible for the process: i.e., the freedom of information team would track down the appropriate person for you.

There are important considerations that must be made when making a Freedom of Information (FOI) request (I have learnt this from applying it as a practitioner): the requestor must stipulate within the FOI request that the data will be used for non-commercial purposes and published in academic journals. This is because the provider will state that ‘the information they provide is protected by copyright’ and authors will be required to inform them if they intend to publish it.

The census data was analysed using descriptive statistic techniques. This provided the reader with a basic understanding about what types of structured diabetes education courses were provided in the various areas and by whom: it provides a snap shot of what actually happened, and it could help explain why individuals did or did not attend a course. This data was also used to help devise the semi-structured interviews needed for the HCPs and administrators: i.e., why did their PCT not provide structured education courses for people with diabetes?

The census statistics was categorized as information relating to the “Exo” environment, i.e., it was data that could not be directly influenced by the participants who attended the diabetes health education courses.

5.5.4 Phase 1c: Policy Review.

5.5.4.1 Analysis of Data: Policy.

There are many definitions of policy analysis (Bechhofer & Paterson, 2012; Bovens & Hart, 1998 and Hogwood & Gunn, 1984). This research had chosen to focus on the aspect of policy analysis that was concerned with the ‘policymaking’ process and how it could be changed. “*The emphasis is less upon what any particular policy should be than with how policies ought to be made*” (Hogwood & Gunn, 1984, p.28).

The framework used was that proposed by Hogwood & Gunn (1984), see Figure 5.14 and Box 5.2. The actual model used was an adaption, as the original model required the researcher to implement the new policy and maintain its progression: this part was not done.

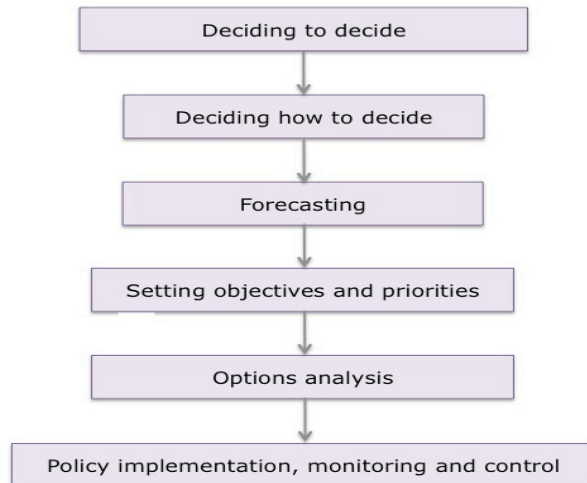


Figure 5.14: The Policy Analysis Process (Hogwood & Gunn, 1984).

Deciding to decide: this was the identification of the problem, which for this study was the ability of PCTs to recruit patients to attend a diabetes structured education course.

Deciding how to decide: the issue was not selected as a ‘whim’, Diabetes UK identified it as a concern during my preliminary discussion with them about potential research support. Normally a researcher would go through an ‘issue filtration’ process to prioritise the areas to focus on.

Forecasting: identifying the future impact of the issue is a means of qualifying the concern. This study looked at the current and future prevalence of the disease and what impact it was likely to have on society as a whole.

Setting objectives and priorities: the objective setting is a way of setting the ‘limits of exploitation’ (i.e., the boundaries of the research). This research had stated that it would not be looking at any clinical aspects of the management of diabetes only the processes associated with diabetes structured education.

Options analysis: policy analysis can utilise many different routes. This study had chosen to focus on the wider ecological issues as prescribed by Bronfenbrenner (1994). In this instance it will review the strengths and weaknesses of the policy guidance provided by NICE and the Department of Health then compare it with what the PCTs were actually doing.

Policy implementation, monitoring and control: for the purposes of this research it was not able to implement a policy change, it will however be working with Diabetes UK in lobbying the Department of Health on the findings it made once the doctoral work has been published. This means that a new proposal will be produced.

Box 5.2: The Policy Analysis Process (Hogwood & Gunn, 1984)

The Department of Health is the lead for the health and care systems in England, they create national policies and legislation to meet the current and future challenges (DoH, n.d.). It is envisaged that the content of these policies will affect the “Exo” environment, as described by Bronfenbrenner

(2005). To identify the relevant documentation for analysis, I had to explore the databases of a number of key portals. These included the National Institute for Health and Care Excellence (NICE), the Department of Health, NHS England and Diabetes UK. The relevant documents identified are illustrated in Box 5.3.

- CG66 Type 2 diabetes: full guideline (NICE, 2011).
- Diagnosis and management of type 1 diabetes in children, young people and adults (NICE, 2004).
- National Service Framework for Diabetes (DOH, n.d.).
- Department of Health: The management of adult diabetes services in the NHS (DOH, 2012)
- Diabetes UK State of the Nation Report 2013 (DUK 2013).
- Quality and Outcomes Framework for 2012/13: Guidance for PCOs and practices (NHS Employers, 2012)

Box 5.3: The Policies And Procedures Used In Relation To Diabetes Education

5.5.5 Phase 2: Compare and relate the data to inform the next Phase.

This was the convergent phase of the research, it brought together the themes identified from the three data sources. It utilized an element of ‘Triangulation’ and ‘Reflexivity’ to evaluate the data. This was based on the framework developed by Altheide and Johnson (1994). The process started by looking at the relationships between the transcriptions, the themes and content identified through the policy and procedures analysis and the data identified through the census. The themes and content developed through these three channels were linked to Bronfenbrenner’s Person, Process, Context and Time model. This allowed me to close the loop and confirm that the proposition of Bronfenbrenner (2005) was either true or false. The next test was to delineate the relationship with what was actually observed and what was interpreted. A key factor in this process was to identify how much of the information was explicit and how much was interpreted through the researcher’s viewpoint. The more explicit the data, the easier it was to avoid confusion about the actual meaning of the data.

At this stage the study had also taken on board the advice of Huberman and Miles (1994) by testing if there was any research bias. This would be

the contingency used to ensure that the targeted number of 32 participants was appropriate. It ensures that no unexplored data was omitted and the results were credible in the eyes of peer reviewers (in this case the peer reviewer were the doctoral supervisors).

Another key aspect of phase two was the development of the Product Definition Assessment (PDA) list. The model is an adaption of the framework designed by Wilson (1990). She introduced ten factors to consider. I will now review these individually with diabetes structured education in mind, see Box 5.4.

- | |
|---|
| <ol style="list-style-type: none"> 1. Understanding Users' Needs: this study will demonstrate that different user groups will have different needs. 2. Strategic Alignment: this will look at how the structured education programmes achieve the NICE guidelines. 3. Competition Analysis: In Wilson's (1990) design, she considered the competition in the traditional sense. For a social marketing problem the competition analysis would be a review of the behaviours competing with the desired changes. The study will have to try and establish what these competing behaviours are. 4. Product Positioning: the study will look at a sample of various the various diabetes structured education courses and establish where these courses are positioned. 5. Technical Risk Assessment: From a research point of view this can be based on underlying theoretical foundations that the diabetes health education course was built on and are these foundations appropriate for the targeted group. 6. Priority Decision Criteria List: These are the trade-off decisions that need to be made when developing the course. An example could be, "do we provide a language specific course for the BME community?" 7. Regulation Compliance: NICE have set specific guidelines on how the programmes should be managed in relation to its quality control. 8. Product Channel Issues: this will relate to how, when and by whom the diabetes structured education courses are delivered. 9. Project Endorsement by Upper Management: in the case of diabetes structured education courses this has already been established because they are now part of the NICE guidelines and they are included in the Quality Outcomes Framework. 10. Total Organizational Support: can be tested by comparing the needs of the trust (PCT) against GPs and specialist diabetic centres. |
|---|

Box 5.4: An adaption of the PDA framework designed by Wilson (1990).

Wilson's (1990) PDA was designed specifically for manufactured products. The rationale for using the model in a social marketing environment could be questioned. I chose to demonstrate that such a model had high relevance to the domain because when considered in conjunction with Andreasen's (1994) benchmark criteria we can see many synergies. The examples below illustrate this:

1. Clear focus on behaviour, with specific behaviour goals: ensure it is strategically aligned.
2. Uses consumer and/or market research: part of the PDA's understanding consumer needs.
3. Is theory-based & informed: part of the PDA's Technical Risk Assessment.
4. Is insight driven: again, understands the consumer needs.
5. Uses exchange concept: this deals with the PDA's product channel issues and the competitive analysis.
6. Uses competition concept: uses an adapted version of the PDA's competition Analysis.
7. Uses a segmentation approach: uses an adapted version of the product positioning analysis.
8. Integrates a mix of methods: uses the PDA's priority decision criteria list.

It can be seen that adapting and integrating Wilson's PDAs with Andreasen's (1994) and French & Blair-Stevens (2006) benchmark criteria can produce a useful tool to assess the projected outcomes. With this in mind, the research had to ensure the following questions were answered before moving on to the next phase:

1. What is the required behaviour change?
2. What is the objective of the product?
3. What is the theory associated with it?
4. How does this fit with the required strategic alignment?
5. Which customers are being targeted?
6. What are these customer's needs?
7. What is the competitive position?
8. What is the product positioning?

9. What is the exchange requirement?
10. What is the Priority Design Criteria?
11. What are the product channel requirements?
12. What are the regulatory requirements?

5.5.6 Phase 3: Interview HCPs and Administrators.

5.5.6.1 Sampling.

As with the sampling of the individuals living with diabetes, this research needed to identify a set of healthcare professional and administrators who manage diabetes health education courses. The sampling process was also a purposive one. The objective was to identify a range of individuals working in an NHS establishment that had been successful in recruiting patients onto a diabetes structured education course and a range of HCPs and administrators who had not been successful.

This was done as phase three of the research programme because it needed elements of the census data and the information given by the participants living with diabetes to filter the search. The census information would highlight those establishments that provided courses and those that did not. The themes identified in the earlier phase would be examined by adding them to the HCP semi-structured interview schedule. This allowed the research to “drill-down” and establish if the HCPs and administrators could explain it.

Identification of the HCPs and administrators was relatively easy: the NHS provides a list of diabetes centres in England with contact numbers (see appendix 5). Contact was initially made by phone and after the targeted individual had agreed to take part in the research a participant information sheet and consent form was sent to the individual for completion (see appendix 6). A time at their convenience was then arranged for a telephone interview to take place.

In this instance there was no target quantity set for the number of HCPs and administrators to interview. Here the process was totally inductive (i.e., a process that moves from the analysis of data and observation to the generation of hypothesis or theory (Pope and Mays, 1995)), it meant

that 'Theoretical Saturation' was used to determine the optimal number of interviewees (this is a point when the data gathered does not produce any new insights (Flick, 2014))

5.5.6.2 Interviews.

The interview process used for the questioning the HCPs and administrators was again a semi-structured one: like the individuals living with diabetes the research had to carry out the process by telephone. The same protocols of reminding the participant about the nature of the study, its anonymity and their right to withdraw at any point was explained.

The interview schedule can be seen in appendix 7. It focused on those areas of diabetes structured education that a patient had little or no influence over: the policies, timings, structure etc. It also attempted to establish who the key stakeholders were in managing the process and what influence they had on the system.

5.5.6.3 Transcribing.

The transcribing task followed exactly the same process as that explained for the individuals living with diabetes (see section 5.5.2.3).

5.5.7 Phase 4: Analyse the data obtained from the HCP interviews.

The forth phase of the study was designed to analyse the findings from the HCP, it utilised the thematic analysis process as described in section 5.5.2.5.

5.5.8 Phase 5: Data interpretation and development of the solution.

The final phase of the study was designed to bring together all the results and to analyse their impact on the research objectives and produce the solution. As a reminder, the primary objective was set to investigate how the SEF could be enhanced by incorporating the PPCT model as described by Bronfenbrenner.

The analysis focused on identifying the impact of the results on the social marketing PDA and the Customer Value Chain. A range of potential options were then developed for the new SEF, these were ranked using the PDA to demonstrate which option was the best.

The secondary objectives were:

1. Are structured health education courses employed to support the management of diabetes successfully engaging patients in England? This was done by examining the results of the census on the delivery capabilities of the 152 PCTs in England.
2. What do patients and healthcare providers think of structured health education courses? The qualitative questioning of the participants is used to answer this question.
3. Do structured health education courses employed to support the management of diabetes need enhancing, if so, how? The operationalizing of the process was demonstrated using the procedures of the study, they were honed after a critical review of the research programme then mapped using process flows. This identified the strength and weaknesses, which could then be reviewed using the Campaign Development Analysis framework.

Having now been reminded of the research objectives and the summary means of identifying the solution, I will now focus on the detail, starting with the CVCA.

5.5.8.1 The Customer Value Chain.

The concept of value chain mapping is an ideal way of visualizing a product development process (Ishii, 2001). The customer value chain was originally introduced by Stanford University to help explain why certain products fail in market. (ibid). The construction of the Customer Value Chain was based on the framework designed by Crain and Abraham (2008): see Figure 5.15.

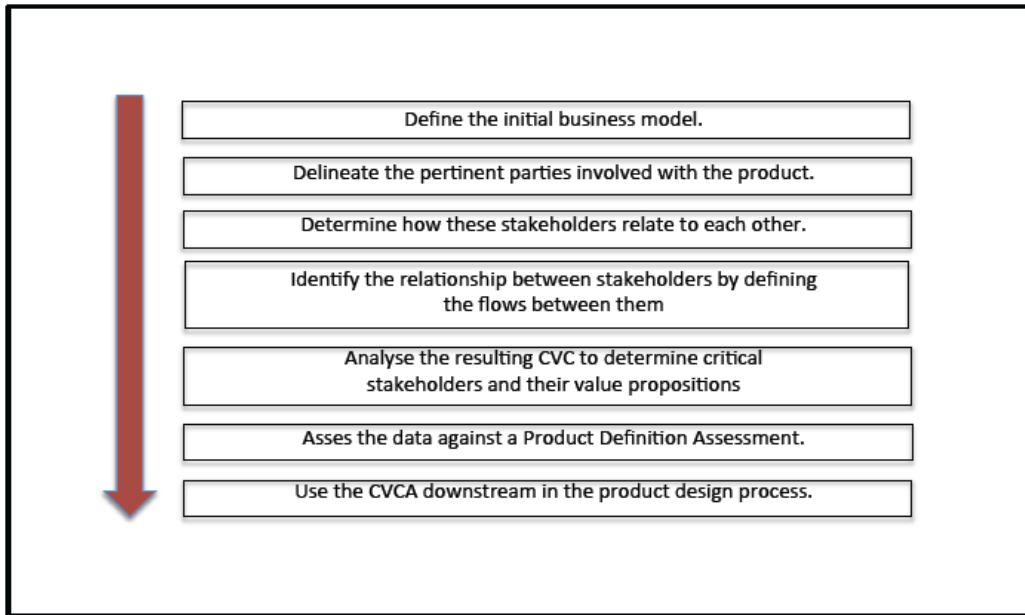


Figure 5.15 The Original CVCA Design (adapted from Ishii, (2001)).

The details for each element of the CVCA are accounted for below:

5.5.8.2 Define the initial business model.

The process of defining the initial social change model was completed by analysing the thematic data generated from the HCPs and administrator’s interviews and the policies / procedures review. One of the key areas of investigation was the “touch points” for establishing and managing diabetes structured education courses. For the purpose of this study a “touch point” was defined as a point of contact between a stakeholder group and an element associated with the diabetes structured education process. As an example, the “payments process touch point” would be linked to the following stakeholder groups: PCT Finance Team and Service Provider Finance Team. At this stage, to make the process manageable, the research opted not to drill down to the exact job holder (i.e., purchase ledger administrator, debt manager etc.) because it was felt that every organization would have a slightly different structure.

The participants being interviewed were also asked to explain why certain decisions were made and by whom. All this information would form the basis of the value chain in the ‘As-Is’ (the way it is being done at that point in time) format. From this information a generic set of key milestones were developed.

5.5.8.3 Describing the involvement levels of the key stakeholder groups involved within the process.

Having identified the 'touch points' and the key stakeholder groups, the study needed to then establish what level of involvement the individuals had within said process. I choose to categorise these involvements into six distinctive groups; administrative, design, delivery, sign-posting, management and participation (based on my experience of working in the sector). The administrative element was associated with the processing and funding of participants and courses. The design was associated with the course development and quality. The delivery was associated with physical training and support given to the participants. The sign-posting element related to those stakeholders who direct individuals to the training programmes. The management related to those individuals who had the power to decide who should attend the courses, which courses would be made available, how many were able to sit the course and when they would be made available. Finally, the participants were the individuals living with diabetes.

The categories were not mutually exclusive; each stakeholder group may be attributed to more than one. In sum, the analysis would provide the research with a visible picture of the hierarchy and levels of responsibility within the value chain.

5.5.8.4 Determining how these stakeholders relate to each other.

This element of the process looked at the relationships that existed between each stakeholder group and with those individuals living with diabetes. It was established through the semi-structured interviews with the HCPs, administrators and those individuals living with diabetes. A set of arbitrary values was given to each stakeholder in relation to their ability to influence behaviour change amongst those individuals living with diabetes and the successful implementation of each structured education course. These values were classed as 'not important', 'important' and 'very important': as an example, for the HCPs and administrators the following question was asked 'how important do you think X (where X is another member of the stakeholder group) is in

getting patients to attend a diabetes structured education course?’ For the individuals living with diabetes the question was adapted to ‘how important do you think X (where X is diabetic nurse, dietitian, Consultant, GP and trainer(s)) is in getting you to change your health behaviours?’ For the individuals living with diabetes the question about health behaviour related specifically to their diet and their exercise regimen.

5.5.8.5 Map the relationship between stakeholders by defining the flows between them.

Having identified the stakeholders and their involvements in the process, this research then mapped the relationships between them. A time line was created for the delivery of a universal diabetic structure education course using the generic key milestones identified earlier. The research looked specifically at the primary interactions that took place with each stakeholder group, using the data obtained through the semi-structured interviews with the HCPs, administrators and also those individuals living with diabetes. This provided the research with an outline customer value chain.

5.5.8.6 Analyse the resulting CVC to determine critical stakeholders and their value propositions.

The CVC was analysed to determine what impact each stakeholder had on the whole value chain. More specifically, the focus was on understanding how each stakeholder affects the design, the implementation and the management of the social marketing process. It also attempted to establish what level of influence each stakeholder had on motivating those individuals living with diabetes to change the required health behaviours. These levels were classed as low medium or high, they were also now compared against the different options of the SEF and the themes identified during the thematic analysis.

5.5.8.7 Assess the data against a Product Definition Assessments.

As discussed earlier, one of the objectives of phase two was to establish at least one Product Definition Assessment (PDA) for the social marketing process (i.e., what would be the ideal features of the diabetes structured

education programme that individuals living with diabetes would want to have). The PDA(s) were tested against the current customer value chain.

5.5.8.8 Use the CVCA downstream in the product design process.

Ishii (2001) stated that a customer value chain is a visual mapping design tool used for the development of a product or service. In my case, the study was not about developing a product or service, it was just about accessing one. This meant that the final stage of the CVCA was about accessing the diabetes structures education process in England. The assessment included looking at how the original SEF and the newly created enhanced SEFs compared against each other.

What I had done thus far was captured information about the key stakeholders and their needs. This information was used in what Ishii (2001) called downstream DfX²⁵ tools. In this case the DFX tool was the enhancement of the SEF.

5.5.8.9 Enhancing the SEF.

Having completed the process of analysing the thoughts of all the key stakeholders, the actual delivery by PCTs and the documentation providing guidance on the actual management of the process, how do we now establish if the SEF could be enhanced using the PPCT model? More importantly how do we then go about enhancing the model?

This research has chosen to utilize two concepts to complete this final phase. The first is Wilson's (1990) Product Definition Assessment (PDA) and the second is Andreason's (1995) benchmark criteria. The guidance for using the PDA has come through Ishii (2001); he recommends that researchers complete the CVCA through a downstream 'Design For X' (DfX) tool as a guide for users to the PDA. Wilson's PDA model was developed specifically for design and development of products that are manufactured. Manufactured products are very different to social marketing ones. On inspection it can be demonstrated that the PDA is very similar to Andreason's benchmark criteria, so this research has

²⁵ DfX stands for 'Design for X' where X could be manufacture or supply or use or any other verb the designer thinks appropriate.

chosen to consolidate and adapt the two to test how the PPCT Model affects the SEF.

It was initially proposed that the analysis was likely to demonstrate one of three outcomes. The first was that there would be no impact to the SEF; the second was that all the elements of the PPCT model did influence the SEF and the third was that only some of the elements of the PPCT would influence the SEF.

If it was established that the PPCT had no influence on the SEF then the research would halt and its conclusions would state this fact. If, however the research identifies that all or some of the elements of the PPCT could influence the SEF then a process of identifying how it could be integrated into the SEF would be initiated.

Having now identified a means of recognizing value across the customer value chain and a way of measuring success in the eyes of the final user for the social marketing campaign, we can now use an iterative process to test the question. As we have already identified in earlier chapters the conceptual design of the SEF is one that uses a pathway flow through each context with a simple “positive” or “negative” indicator to determine its flow (see Figure 5.16)

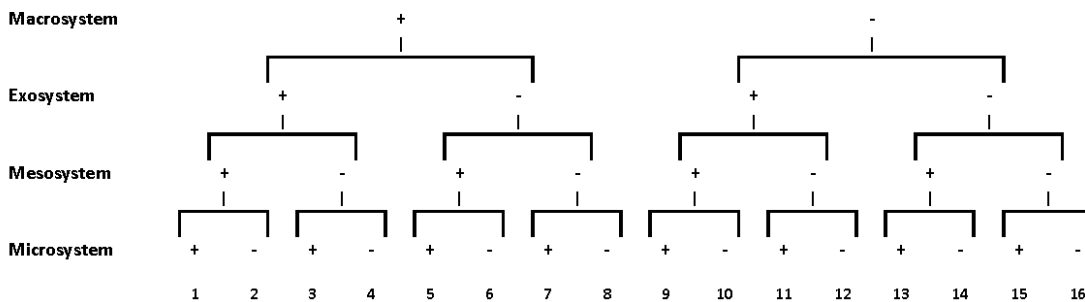


Figure 5.16: A schematic view of the SEF.

The iterations were designed to examine the usability of the model if it were expanded linearly or modularly. By expanding the model linearly all the elements would be included and the model would move from a 16 point pathway to 128 point pathway. If the model were expanded modularly the 16 point SEF would remain the same and the enhancements

would be “sign posted” to review the impact of the “person”, “process” and “time” elements.

5.6 The Final Process.

The research methods process will end by reviewing how to operationalise the whole process, by this I mean by including the CVCA and DFX models to support the SEF. This was done by stream lining the flows that were used in this actual research.

Chapter 6: Results And Findings.

6.1 Introduction.

This chapter has been written to give the reader an insight into the results and findings of my study. It starts by looking at the effects and implications of the policy analysis, focusing specifically on those aspects related to diabetes structured health education. It then summaries the results of the census for diabetes structured education courses completed in NHS England (2011 to 2012) and provides a detail review of the findings obtained from the participant interview and the survey, which is split into the following sections²⁶:

- Micro (Context).
- Meso (Context).
- Exo (Context).
- Macro (Context).
- Person.
- Process.
- Time.

The chapter also includes a summary of the interviews carried out with the NHS practitioners and ends with a review of how each stakeholder in the process interacts and influences patient behaviour: from an NHS practitioner and patient perspective.

To help the reader understand the qualitative process of research the following definitions were used in the analysis. These were adapted from the work of Corbin & Strauss (2008) and Braun & Clarke (2006):

- Initial Theme - the first classification of the transcribed text into a theme.
- Axial Theme - the aggregation of the initial codes into an axial theme category.

²⁶ The micro, meso, exo and macro systems, which are the context element of the PPCT will be considered first because, historically, this is the foundation on which the ecological theory was built.

- Core Theme – the final aggregation of the data into a core theme that expresses the findings.

In an attempt to maintain some form of consistency the word ‘theme’ replaces ‘category’ in the content analysis review.

6.2 Policy Analysis.

This study looked at a number of documents and policies relating to diabetes care in England. The most important policies relating to structured diabetes education were provided by the NICE Guidelines and the Quality Outcome Framework, the details of which will now be reviewed.

6.2.1 NICE Guidelines.

NICE stands for the National Institute for Health and Care Excellence: it was originally known as the National Institute for Clinical Excellence (NICE 2014). They provide guidance on how health and social care can be improved: their primary remit is to ensure a consistent standard of quality is delivered within the NHS (ibid). NICE is classed as a Non Departmental Public Body (NDPB) (ibid): *“an NDPB is a body which has a role in the processes of national Government, but is not a Government Department or part of one, and which accordingly operates to a greater or lesser extent at arm’s length from Ministers”* (UK Gov, 2013).

NICE has a set of clinical guidelines for Type I diabetes and Type II diabetes:

- Type I diabetes: diagnosis and management of Type I diabetes in children, young people and adults (NICE, 2004).
- Type II diabetes: National clinical guideline for management in primary and secondary care (update) (NICE, 2008).

For both Type I and Type II diabetes, the key factors identified from the policy analysis was, structured diabetes education should be offered to every person and their carer(s) at or around the time of diagnosis, with annual reinforcement and review (NICE, 2008 and NICE 2004). These

guidelines also state that, people and their carers should be informed that structured education is an integral part of diabetes care (NICE, 2008 and NICE 2004). Structured education courses require certain standards, Table 6.1 highlights the said standards:

Table 6.1: Structured Education Standards (as identified in the Policy Analysis)

Structured Education Standards
<ul style="list-style-type: none"> • Courses need to be evidence based and built using a theoretical framework. • It should be designed to suit the individual's needs. • There should be a structured curriculum and participants should be offered supporting materials. • Programmes need to be delivered by trained educators. • Programmes should be quality assured. • The outcomes should be regularly audited.

Patient education is designed to help individuals living with diabetes by giving them the skills, knowledge and confidence to take control of their condition (NICE, 2008). Another term for patient education is self-management, it is seen as the “*cornerstone of effective diabetes care*” (DoH, n.d.).

6.2.2 Quality and Outcomes Framework.

The Quality and Outcomes Framework (QOF) is the mechanism that is used to reward General Practitioners (GPs), who, in this context, are also known as contractors for providing quality care (NHS Employers, 2013). A key objective is to “*standardise improvements in the delivery of primary medical services*” (ibid, p2). Essentially there are a number of factors that a GP must consider when dealing with patients. These factors are associated with points; GPs are paid for every point earned depending on the prevalence of diabetes in that practice's patients. The definition of the on-going management is:

“The percentage of patients newly diagnosed with diabetes, on the register, in the preceding 1 April to 31 March who have a record of being referred to a structured education programme within 9 months after entry on to the diabetes register.”

(NHS Employers, 2013, p14)

In sum, there are clear policies and guidelines directing NHS staff to offer those individuals diagnosed with diabetes and their carers a place on a structured education course, GPs are also financially rewarded for sign posting patients.

6.3 Diabetes Structured Education in NHS England.

This section presents the results of the census taken of all 152 PCTs in England. It utilised the Freedom of Information Request process (Justice, 2012), which meant that each PCT had a legal obligation to respond. Unfortunately, the request happened during the restructuring of PCTs to CCGs, this caused some confusion: the issues of which will be covered in more detail in chapter 7. The details of the results can be seen in appendix 8, the summary starts by reviewing Type I.

6.3.1 Type I Diabetes.

The findings in relation to the provision of Type I structured education can be seen in Table 6.2 and 6.3:

Table 6.2: Type I Delivery Profile, April 2011 to March 2012.

Type I Delivery Profile: April 11 to March 12	Number	%
Delivered Structured Education.	41	27.0%
Delivered Structured Education via other Trust.	25	16.4%
Did not know or did not deliver.	86	56.6%

Table 6.3: Type I Structured Education Type.

Type I Structured Education: Course Type	Number	%
DAFNE	37	75.5%
Other	12	24.5%

My research found that only 41 PCTs (27%) knew the quantity of courses that were delivered in their area. There were 25 PCTs (16.4%) who stated that they had passed this responsibility to another trust: of these 25, only

8 had the data to identify how many had been delivered. 86 PCTs (56.6%) either had no processes in place to manage and monitor the numbers of individuals (or their carers) going through the courses or did not deliver / commission a single course in the period under review.

There is one nationally identified Type I structured education course: DAFNE (DoH & DUK, 2005). This accounted for 37 (75.5%) of the courses delivered by the PCTs. There are a further 18 other courses provided by the various PCTs (see Table 6.4) but only 12 were identified as courses that actually delivered to individuals living with diabetes during the period of investigation (i.e., the 6 PCTs in question stated that they had local variants but were unable to provide information on how many people attended or how many courses were run). The duration of the local variant courses varied from a session delivered in one day to five sessions held over five weeks.

Table 6.4: The range of Type I Structured education courses.

Course	Description
DAFNE	Dose adjustment for normal eating. A five day course running usually Monday to Friday (9am -5pm).
KATIE	Kent adult Type I Education: very similar to DAFNE.
BERTIE	Bournemouth Type I Intensive Education: four, 6-hour session run over four weeks.
InSight	A diabetes education course for individuals living with Type I: four, 3-4 hour sessions run over four weeks.
T1IDE	Trafford Type I intensive diabetes education: four, 6 hour sessions run over four weeks.
Skills for Life	A Type I education, eight 6 hour sessions run over eight weeks.
REACCT	Re-Education and Carbohydrate Counting: two, 2 to 3 hour sessions delivered held six weeks apart.
EDWARD	Education for Diabetes without a Restrictive Diet: four, 5.5 hour sessions delivered held four weeks apart.
BHITE	Brighton and Hove Intensive Type I Education programme, four 7 hour sessions run over four weeks.
GATTO	Guy's and Tommy's Type One, four full day sessions held over a period of four weeks for 6 to 8 people held three times each year.

BHICEP	Bart's and Homerton Insulin & Carbohydrate Education Programme, four full day sessions held over a period of four weeks for 6 to 10 people.
Carb Counting	This is a single 3-hour session focusing specifically on food management.
STILE	Shropshire Titration of insulin and lifestyle Education, four full day sessions held over a period of four weeks for 6 to 10 people
BDEC	Bournemouth Diabetes and Endocrine centre have an e-learning platform to support individuals.
TIFA	Torbay insulin food adjustment course, four half day sessions held over a period of four weeks
Freedom4Life	Type I diabetes education, five half day sessions that run over 5 weeks.
BITES	Brief Intervention in Type I Diabetes, Education for Self-Efficacy, A three day course.
BEND 1	Basic education for newly diagnosed diabetes Type I, four, three hour sessions that run over four weeks.
CHOICE	Carbohydrate and Insulin Calculation Education - for those with Type I diabetes.

6.3.2 Type II Diabetes Structured Education.

The number of PCTs who knew what was delivered in terms of Type II diabetes structured education was only 71 (46.7%). There were a further 16 PCTs (10.5%) that stated that the courses were delivered by another trust. Only 10 of the 16 PCTs that said they used another trust knew what was delivered. Table 6.5 and Table 6.6 illustrate the results of the actual findings.

Table 6.5: Type II Delivery Profile April 2011 to March 2012.

Type II Delivery Profile: April 11 to March 12	Number	%
Delivered Structured Education.	71	46.7%
Delivered Structured Education via other Trust.	16	10.5%
Did not know or did not deliver.	65	42.8%

Table 6.6: Type II Structured Education Type

Type II Structured Education Type	Number	%
DESMOND	51	60.0%
XPERT	27	31.8%
Other.	7	8.2%

With Type II education, there were only two national courses identified, DESMOND and XPERT (DoH & DUK, 2005). There were a further 10 local variants. Again, like Type I diabetes, the duration of each type of course varied. It was identified that most PCTs only provided one type of course. Table 6.7 is a summary of the courses that were on offer during the period of research in question.

Table 6.7: The range of Type II structured education courses.

Course	Description
DESMOND	Diabetes Education and Self-Management for On-going and Newly Diagnosed. Either delivered as a 6 hour, one day session or two, 3 hour half day sessions. There are four variants including language specific courses for Punjabi, Urdu, Bengali and Gujarati.
XPERT	Designed for people with Type II diabetes however it is also open to individuals with Type I. It has six, 2.5 hour sessions held over a period of six weeks.
DOTTIE	Doncaster Type II information education, two, 3-hour half day sessions.
EDDI	Education for diabetes for individuals newly diagnosed with Type II diabetes, two half day sessions delivered a week apart.
DEREK	Diabetes education and revision in East Kent, one, 4-hour session.
Right Start.	Structured education for people with Type II diabetes, four, two hour sessions delivered over four weeks.
Spotlight Diabetes	Structured education for people with Type II diabetes, two, two hour sessions delivered over two weeks.
Living with Diabetes	Structured education for newly diagnosed people with Type II diabetes, one, one-day session with a half day follow up 3 months later.
Good2Go	Structured education for people with Type II diabetes, a one-day course.

HARRIET	Harrogate Initiative providing Education on Type II diabetes, three half day sessions delivered over 6 weeks.
DEAL	Diabetes Education Awareness for Life.
BEND 2	Basic education for newly diagnosed diabetes Type II, four, three hour sessions that run over four weeks.

6.4 Participant Survey & Interviews.

The adverts calling for participants to take part in the research yielded 376 responses. This was identified through the online questionnaire (see appendix 1), 43 of these questionnaires were found to be substantially incomplete (between 82% and 94%) so they were ignored. A further 52 of the questionnaires came from individuals living outside of England, these too were ignored. This left the research with a potential cohort of 281 (see Table 6.8 and Table 6.9). 22 of the 281 (8%) had a small amount of missing data (between 8% and 13%: note the difference between this group and the incomplete was the respondents had reached the end of the questionnaire). Analysis of the missing data identified that the offending questions could be classed as ‘missing completely at random’ (i.e., there were no questions that were identified as being significant in being ignored). Missing data was replaced using a means substitution process (Hair et al., 2010).

Using the principles of informed consent, the last question in the online survey asked if the individual would be happy to participate in a telephone interview to review their experiences of diabetes health education courses. There were only 93 participants who agreed to this (see Table 6.10 and Table 6.11).

Table 6.8: Profile of individuals who took part in the online questionnaire

Core Factors					Represented Factors								
Ref	Diabetes Type	Gender	Employment Status	Cultural Background	London	Southern	North & West Midlands	North East	Eastern	Total	Responsible for young family *	Have attended a DHEC	Have not attended a DHEC
1	Type 1	Male	Employed	White / European	10	7	6	5	6	34	6	17	17
2				BME						0			
3			Unemployed / Retired	White / European	8	8	10	7	8	41		20	21
4				BME						0			
5		Female	Employed	White / European	9	7	8	7	9	40	4	18	22
6				BME						0			
7			Unemployed / Retired	White / European	14	9	12	4	9	48	12	23	25
8				BME	1					1		1	
Total for Type 1					42	31	36	23	32	164	22	79	85
9	Type 2	Male	Employed	White / European	6	5	5	4	5	25	6	11	14
10				BME			1			1			1
11			Unemployed / Retired	White / European	4	6	4	5	6	25		12	13
12				BME						0			
13		Female	Employed	White / European	7	7	8	4	5	31	5	14	17
14				BME						0			
15			Unemployed / Retired	White / European	7	7	4	6	8	32	6	15	17
16				BME	1		2			3	1	1	2
Total for Type 2					25	25	24	19	24	117	18	53	64
Total					67	56	60	42	56	281	40	132	149

Table 6.9 Summary profile of individuals who took part in online questionnaire.

	Male	%	Female	%	Emp	%	UnEmp / Retired	%	White / European	%	BME	%	Attended Cse	%	Not Attended Cse	%	Totals	%
Type 1 Diabetes	75	46%	89	54%	74	45%	90	55%	163	99%	1	1%	79	48%	85	52%	164	58%
Type 2 Diabetes	51	44%	66	56%	57	49%	60	51%	113	97%	4	3%	53	45%	64	55%	117	42%
Total	126	45%	155	55%	131	47%	150	53%	276	98%	5	2%	132	47%	149	53%	281	

Table 6.10: Profile of Individuals who agreed to be interviewed.

Core Factors					Represented Factors								
Ref	Diabetes Type	Gender	Employment Status	Cultural Background	London	Southern	North & West Midlands	North East	Eastern	Total	Responsible for young family *	Have attended a DHEC	Have not attended a DHEC
1	Type 1	Male	Employed	White / European	2	2	2	1	2	9	3	5	4
2				BME						0			
3			Unemployed / Retired	White / European	2	3	2	3	3	13		7	6
4				BME						0			
5		Female	Employed	White / European	3	2	3	2	2	12		5	7
6				BME						0			
7			Unemployed / Retired	White / European	2	4	3	2	3	14	6	6	8
8				BME	1					1		1	
Total for Type 1					10	11	10	8	10	49	9	24	25
9	Type 2	Male	Employed	White / European	3	2	1	1	2	9	3	5	4
10				BME			1			1			1
11			Unemployed / Retired	White / European	1	3	3	2	2	11		6	5
12				BME						0			
13		Female	Employed	White / European	2	2	2	2	2	10		6	4
14				BME						0			
15			Unemployed / Retired	White / European	2	2	1	2	3	10	4	3	7
16				BME	1		2			3	1	1	2
Total for Type 2					9	9	10	7	9	44	8	21	23
Total					19	20	20	15	19	93	17	45	48

Table 6.11: Summary profile of individuals who agreed to be interviewed.

	Male	%	Female	%	Emp	%	UnEmp / Retired	%	White / European	%	BME	%	Attended Cse	%	Not Attended Cse	%	Totals	%
Type 1 Diabetes	22	45%	27	55%	21	43%	28	57%	48	98%	1	2%	24	49%	25	51%	49	53%
Type 2 Diabetes	21	48%	23	52%	20	45%	24	55%	40	91%	4	9%	21	48%	23	52%	44	47%
Total	43	46%	50	54%	41	44%	52	56%	88	95%	5	5%	45	48%	48	52%	93	

Table 6.12: Final Profile of individuals to interview.

Ref	Core Factors				Represented Factors							Responsible for young family *	Have attended a DHEC	Have not attended a DHEC
	Diabetes Type	Gender	Employment Status	Cultural Background	London	Southern	North & West Midlands	North East	Eastern	Total				
1	Type 1	Male	Employed	White / European			1	1	1	3	2	1	2	
2				BME						0				
3			Unemployed	White / European		1	1	2		4		2	2	
4				BME						0				
5		Female	Employed	White / European	3		1			4		3	1	
6				BME						0				
7			Unemployed	White / European		2			2	4	3	1	3	
8				BME	1					1		1		
Total for Type 1					4	3	3	3	3	16	5	8	8	
9	Type 2	Male	Employed	White / European	1	1		1	1	4	1	2	2	
10				BME			1			1			1	
11			Unemployed	White / European		1	1	1		3		2	1	
12				BME						0				
13		Female	Employed	White / European	1				1	2		1	1	
14				BME						0				
15			Unemployed	White / European		1		1	1	3	2	2	1	
16				BME	1		2			3	1	1	2	
Total for Type 2					3	3	4	3	3	16	4	8	8	
Total					7	6	7	6	6	32	9	16	16	

Table 6.13: Final summary profile of people to be interviewed

	Male	%	Female	%	Emp	%	UnEmp / Retired	%	White / European	%	BME	%	Attended Cse	%	Not Attended Cse	%	Totals	%
Type 1 Diabetes	7	44%	9	56%	7	44%	9	56%	15	94%	1	6%	8	50%	8	50%	16	50%
Type 2 Diabetes	8	50%	8	50%	7	44%	9	56%	12	75%	4	25%	8	50%	8	50%	16	50%
Total	15	47%	17	53%	14	44%	18	56%	27	84%	5	16%	16	50%	16	50%	32	50%

A summary of the main quantitative analysis results from the survey can be seen in Table 6.14. They represent a snapshot of Bronfenbrenner’s (2005) Bio-ecological Theory, more specifically focusing on the PPCT model.

Table 6.14: Summary of the quantitative analysis from the patient questionnaire.

Null Hypothesis	Test	(df) t	p	Effect	Decision
H ₀₁ : Genetically different individuals will have equal attitudes towards engaging in diabetes health education courses and changing their behaviour (in relation to diabetes). Person	Chi-Square		414.41	Small (r=0.05)	Reject
H ₀₂ : Participants are equally likely to engage with the non-flexible and flexible courses. Process	Paired t-test	(280) -16.013	< 0.05	Large (r=0.67)	Reject
H _{03a} : Genetically different individuals will have an equal reliance on the DHEC micro-system in the management of their diabetes. Context: Micro	Independent samples t-test	(279) 1.032	0.303	Large (r=0.76)	Accept
H _{03b} : Genetically different individuals will have an equal reliance on the family micro-system in the management of their diabetes. Context: Micro	Independent samples t-test	(279) 21.951	< 0.01	Large (r=2.6)	Reject
H _{03c} : Genetically different individuals will have an equal reliance on the work micro-system in the management of their diabetes. Context: Micro	Independent samples t-test	(279) 1.095	0.459	Small (r=0.02)	Accept
H _{04a} : The family-DHEC meso-system will have an equal effect on influencing families with and without school age children to attend a standard DHEC . Context: Meso	Independent samples t-test	(279) 1.045	< 0.05	Small (r=0.13)	Reject
H _{04c} : the Work-DHEC meso-system will have an equal effect on influencing employed and unemployed individuals to attend a standard DHEC . Context: Meso	Independent samples t-test	(175) -4.281	0.000	Large (r=0.76)	Reject
H ₀₅ : There is an equal opportunity of being offered or not offered a place on the DHEC. Context: Exo	Z Test		-10.839	Medium (r=0.56)	Reject
H _{06a} : The Cultural macro-system will have an equal effect on influencing individuals to attend a standard DHEC (i.e., run Mon – Fri, between 9 and 5) compared to all other macro-systems . Context: Micro	Unable to recruit participants				
H _{06b} : The long term unemployment macro-system will have an equal effect on influencing individuals to attend a standard DHEC (i.e., run Mon – Fri, between 9 and 5) compared to all other macro-systems . Context: Micro	Unable to recruit participants				
H ₀₇ : There is an equal opportunity of believing that long courses will have an equal impact influencing behaviour change as short courses. Time	Dependent samples t-test	(280) 1.924	> 0.05	Small (r=0.09)	Accept

The 93 individuals were communicated with via email and thanked for agreeing to participate in the research. They were told that contact would be made in the coming weeks to arrange a suitable time for the interview. A list was produced with the order to contact, it used a purposive means to categorise

the individuals (see Table 6.12 and Table 6.13). The list had the primary contacts and the reserves (covering the remainder of the 93 individuals). Once all the primary contacts had all been interviewed an email was sent to the reserves thanking them for their support and stating that the research was now complete.

The semi-structured interview process had used existing theory to identify seven key themes that were based on Bronfenbrenner's latest Bio-Ecological Theory (Bronfenbrenner and Cecil, 1998):

- The Micro System (context).
- The Meso System (context).
- The Exo System (context).
- The Macro System (context).
- The Person.
- The Process
- Time.

The objective was to confirm Bronfenbrenner's theory using a content analysis approach support by an online survey and semi structured interviews. A summary of the content analysis can be seen in Table 6.15. When viewed on its own it is may seem confusing, so some explanation is needed: it depicts the positive, negative or 'non relevant' sentiments of each interviewee in relation to Bronfenbrenner's (2005) PPCT model. A complete analysis of Type I and Type II diabetics can be seen in (appendix 9 the content analysis code book).

Table 6.15: A summary of content analysis results.

The table counts the positive (+), negative (-) and 'non relevant' (NR) responses from the participants in relation to Bronfenbrenner's (2005) PPCT model.

Person	Employed			Unemployed			Retired			White/European			BME			Dependants			Non-dependants		
	+	-	NR	+	-	NR	+	-	NR	+	-	NR	+	-	NR	+	-	NR	+	-	NR
Process																					
Flexible Course	14						18			27			5			9			23		
Non Flexible Course	4	10					13	5		17	10		5	5		2	7		15	8	
Microsystem																					
Family	9	5					12	6		15	0	0	1			5			11		
Work		3	4					1	8	0	3	12	1	1			5		4	7	
DHEC	14						18			27	0	0	5			9			23		
Mesosystem																					
Family - DHEC	9	3	2				11	7		19	3	5	1	4		6	3		14	9	
Work - DHEC	3	8	3						18	3	8	16		5		3	3	3		5	18
Macrosystem																					
Language specific courses			14						18		27		4	1	1	8			3		20
Gender specific courses			14						18		27		3	2	1	8			2		21
Time																					
Long course (over 6-8 sessions)	14						18			27			5			9			23		
Medium length course (over 2 to 5 sessions)	14						18			27			5			9			23		
Short course (1 session: half or full day)	14						18			27			5			9			23		

The semi-structured interviews were also used to identify new themes that might be of benefit to the research using a thematic analysis approach. A summary of 'axial' and 'core' themes can be seen in Table 6.16. An example of a transcription can also be seen in appendix 3.

Table 6.16: A summary of the axial and core themes identified.

Initial Theme	Axial Theme	Core Theme
<p>My mum bore the brunt of managing my diabetes</p> <p>It was my parents that took the trouble to learn about diabetes</p> <p>I was too young to really understand what was going on it was my mum that taught me everything about diabetes.</p>	Parental Support	Wider Support
<p>I am a wheel chair user and a diabetic does mean that I rely more on my wife than I really should</p> <p>My older sister had Type I diabetes too she was a big help in getting me to understand diabetes.</p>	Family Support	Wider Support
<p>I changed my habits because I want to see my kids grow up.</p> <p>I worry about my future and how I might not be able to support my family.</p> <p>I need to change what I eat and how I exercise because I want to be around to see my grandchildren</p>	Future Family Support	Wider Support
<p>I really cannot afford to take time off at the moment even though I know that I should</p> <p>Taking time off is not a problem for me, my boss is very flexible and as long as I make the time up it is ok</p> <p>I don't want my boss to know I have diabetes, my job is very demanding physically and I don't want him to think I cannot do it.</p>	Taking Time off work	Flexibility
<p>I need to stay fit to keep my job, if that means changing what I do then I just have to.</p> <p>Changing my behaviours is important for me because I have a mortgage to pay and a family to keep</p>	Maintaining employment.	Future prospects
<p>I can't take time off work, if the course was in the evening or weekends then I could do it.</p> <p>I tried to get myself on the XPERT course but was told that they don't do it in my area.</p> <p>The time of the course is not convenient for me, they are not very flexible.</p>	Availability of courses	Flexibility
<p>Before your survey I was not aware that these courses existed.</p>	Awareness	Promotions

I did not know that I should have been given a place on the course.

I have heard about DESMOND but I have not heard of any of the others you mentioned.

The recipes tend to be Anglo Saxon, which is no good for me and my family.	Recipes	Relevance
I would have liked to seen Indian food being discussed.		
The trainers need to know about diabetes.	Trainers	Knowledgeable Trainers
I prefer to see healthcare professionals delivering the course.		
There are no electronic resources or forums.	Support	Information & Guidance
Would like to see more follow up and guidance.		

As with the content analysis table, the summary of the axial and core themes identified needs some form of explanation to put the results into context. The next section will focus on this by looking at each element of the PPCT model in detail:

6.4.1 The Person.

My study specifically chose to utilise a purposive sampling method to select its participants, in an attempt to make the process more robust it also adopted a random sampling mechanism to reduce the 93 individuals to 32. This was identified from a cohort of 281 (164 individuals with Type I diabetes and 117 individuals). I also knew that the proportion of Type I diabetics to Type II diabetics in England is 1.5 : 8.5. This means that the expected profile should been: 42 individuals with Type I diabetes and 239 individuals with Type II diabetes.

Even though this element of the research focuses on qualitative methods, it may be worth examining the importance of this finding using a Chi squared test. The Chi-square test is a statistical process that is commonly

used to compare observed data with data that we would expect to obtain according to a specific hypothesis (Field, 2013). The formula is:

$$\chi^2 = \sum(o-e)^2/e$$

where

χ^2 = Chi Squared.

o = Observed data.

e = Expected data.

	Type I	Type II
Observed (o)	164.00	117.00
Expected (e)	42.15	238.85
Deviation (o - e)	121.85	-121.85
Deviation ² (d ²)	14,847.42	14,847.42
d ² /e	352.25	62.16
χ^2	414.41	

This value of 414.41 is significant when $p > 0.001$ which means we can reject the Null hypothesis which states that there is no significant difference between the observed and expected frequencies.

So it appears that individuals with Type I diabetes are more likely to want to engage in positive health behaviour traits than those with Type II. Which also confirms Bronfenbrenner’s (2005) theory that biological different individual are likely to have different development needs.

We have also seen that from the analysis of the data highlighted above that the range of differences as to why an individual would or would not attend a diabetes health education course were wide. The implications of this will be discussed further in chapter 7.

6.4.2 The Process.

The process (or the proximal process to use its correct term) for the purposes of this study was considered to be the diabetes structured education and the associated social marketing activities attributed to it. It is worth reminding the reader that the proximal process is an intervention that occurs regularly over a period of time, which causes an enduring

form of interaction that is related to the immediate environment (Bronfenbrenner, 1994).

As the study has already shown, the majority of the PCTs reviewed only offered one format of the course for each type of diabetes. There were a number that provided evening, weekend and weekday options but these were the exception. Another core theme identified for this section was, more people would engage with structured education if they were offered a choice. This was tested using a paired t-test with the following hypothesis:

To test the hypothesis that the course uptake between PCTs that offer one type of course (during the week, between 9-5), ($M = 3.16$, $SD = 1.392$) and the those PCTs that provide individuals with a variety of course timing options, ($M = 4.54$, $SD = 0.659$) are not equal, a dependent samples t-test was performed. Prior to conducting the analysis, the assumption of normally distributed difference scores was examined. The assumption was considered satisfied, i.e., the skew $<|2.0|$ and kurtosis $<|9.0|$ (Schmider et al., 2010). The null hypothesis of equal engagement means was rejected $t(280) = -16.013$, $p < 0.05$. There was a statistically significant difference between the means of engagement of PCTs providing a variety courses. It should also be noted that the correlation between the two conditions was estimated at $r = 0.16$, $p < 0.05$, suggesting that both cases are poorly correlated: participants are more likely to engage with PCTs that provide a range of courses than one that just has one course. Using G*Power the effect size was calculated to be 0.96, which can be classed as large (Cohen, 2013). The power was 0.96, meaning that 96% of the study is likely to achieve the alternative hypothesis.

When questioned, each participant stated that the health behaviour changes required for diabetes could not be transmitted through a simple promotional message. When compared with campaigns that encouraged individuals to eat five pieces of fruit per day or not to drink and drive, they all stated that the management of diabetes needed supporting materials (either books, video or websites) to facilitate the behaviour change. They all agreed that some form of education was vital for those

living with diabetes. This became a core theme the study: 'flexibility'. A summary of the finding is illustrated in Figure 6.1:

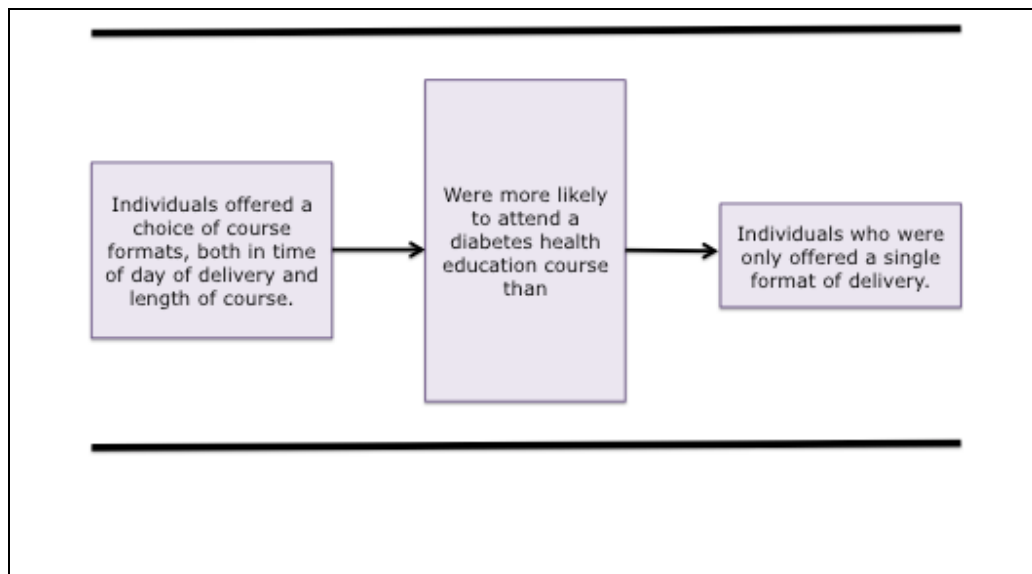


Figure 6.1: A summary of the findings related to the person.

Another interesting finding from the study was, many individuals had never heard of diabetes health education programmes and were not aware that they should be offered a place on the course (and their carers too). This created a core theme called 'poor promotions'.

The study wanted to test those individuals living with diabetes who had a poor command of English and/or had firm religious or cultural beliefs about integrating sexes on the courses thought about the offerings. Unfortunately it was not able to recruit these individuals, the issues related to this will be discussed in the chapter 7.

6.4.3 The Micro System.

The micro system theme focused on establishing what impact an individual's family, their work and attending a diabetes structured health education course might have on changing their health behaviours. Understanding the attitudes of individuals attending a diabetes health education was paramount because Bronfenbrenner (2005) stated that when testing the theory, researchers must ensure that participants have a positive affiliation to the required change otherwise the results could provide a biased view (i.e., one can only truly explain the differences each

environment system has on an individual when they can see the benefit of attending).

An independent-samples *t*-test was conducted to compare the perceived attitudes of Type I and Type II diabetics in relation to attending a diabetes structured education course will help them manage their diabetes. There was not a significant difference in the scores for Type I (N= 164, M=4.68, SD=0.469) and Type II (N= 117, M=4.62, SD=0.523). The Type I and Type II distributions were sufficiently normal for the purposes of conducting a *t*-test (i.e., skew < |2.0| and kurtosis < |9.0|: Schmider et al., 2010). Additionally, the assumption of homogeneity of variance was tested and satisfied via Levene's *F* test, $F(279) = 5.404$, $p = 0.021$. The independent samples *t*-test was not associated with a statistically significant effect, $t(279)=1.032$, $p=0.303$.

In relation to the family element of the micro system, even though this study focused on adults, many of the participants shared their memories and experience of living with diabetes as a child. It was identified that the family environment had a big part to play in those people living with Type I diabetes. This was because many of these individuals were diagnosed as a child. My research identified that the perceived impact of being diagnosed had a bigger bearing on the parents and carers than the individual themselves (based on discussions with the individual). Examples of the comments made were:

"I think my mum bore the brunt of managing my diabetes as she had make special meals for me. She also kept an eye on my blood glucose levels."

(Participant 14: Type I)

"In hind sight I can see it was my parents that took the trouble to learn about diabetes, I was oblivious at the time. Their support and guidance has helped me understand this condition and learn to live with it."

(Participant 5: Type I)

The axial theme in this case was tagged as “parental support”. The main finding was: it was these parents and carers that had to do most of the work in understanding what impact it would have on their child. The parents and carers became the key catalyst in developing new behaviour patterns for the affected individual.

The survey used a Likert scale to establish how much family members influenced positive health behaviours in those individuals living with diabetes. It was able to categorise participants into various groups, i.e., male / female, age ranges, geographical locations etc.

An independent-samples *t*-test was conducted to compare the perceived attitudes of Type I and Type II diabetics in relation to the importance of their family in supporting them with their health behaviour changes. There was a significant difference in the scores for Type I ($N=164$, $M=4.50$, $SD=0.717$) and Type II ($N=117$, $M=2.40$, $SD=0.883$). The individuals diagnosed with Type I and Type II diabetes distributions were sufficiently normal for the purposes of conducting a *t*-test (i.e., skew $< |2.0|$ and kurtosis $< |9.0|$; Schmider et al., 2010). Additionally, the assumption of homogeneity of variance was tested but it did not satisfy via Levene's *F* test, as $F(279) = 4.795$, $p > 0.05$. Although the independent samples *t*-test was associated with a statistically significant effect, $t(279)=21.951$, $p<0.01$. Using G*Power the effect size was calculated to be 2.6: a large value (Cohen, 2013). These results suggest that individuals diagnosed with Type I place a higher level of importance on their families in supporting them with adopting positive diabetic health behaviour changes than those with Type II diabetes.

It should be noted that my research also identified that the comparisons of the results for individuals diagnosed as a Child compared to those diagnosed as an adult were very similar, this is because most Type I diabetics were diagnosed as a child. The link became clear during the semi structured interviewing process, the majority of Type I diabetics sample (99%) were diagnosed with diabetes as a child. It was the parents that took ownership of what was best for the child and helped ensure that they adhere to the correct regimen.

The discussions during the semi-structured interviews identified that individual with complex needs i.e., more than one chronic condition and registered with a disability also relied on greater family support.

“The fact that I am a wheel chair user and a diabetic does mean that I rely more on my wife than I really should. She is a big help to me: insisting on preparing all my meals. She really is a big help to me.”

Participant 18 (Age 53, Type II)

Unfortunately, the survey did not ask if individuals were registered disable, it did however identify if individuals had more than one long-term chronic condition.

An independent-samples t-test was conducted to compare the perceived attitudes of individuals with additional long term chronic conditions against those just living with diabetes in relation to the importance of their family in supporting them with their health behaviour changes. There was a significant difference in the scores for those with diagnosed with additional long-term chronic conditions (N= 47, M=4.04, SD=1.429) and those with diagnosed with just diabetes (N= 234, M=3.51, SD=1.264). These results suggest that individuals diagnosed with additional long term chronic conditions place a higher level of importance on their families in supporting them with adopting positive diabetic health behaviour changes than those with those with diagnosed with just diabetes. The individuals diagnosed as an additional long-term chronic condition distribution was sufficiently normal for the purposes of conducting a t-test (i.e., skew < |2.0| and kurtosis < |9.0|: Schmider et al., 2010). Additionally, the assumption of homogeneity of variance was tested and satisfied via Levene’s F test, $F(279) = 1.003$, $p = 0.317$. The independent samples t-test was associated with a statistically significant effect, $t(279)=2.563$, $p=0.01$.

Using G*Power the effect size was calculated to be 0.39: a value between medium and large (Cohen, 2013). The power was 0.69, which is not ideal meaning that further studies should be done with a larger sample of individuals with complex needs.

No links of any significance were found between an individual’s work place and their ability to positively manage their health behaviours. The overall summary can be seen in Figure 6.2:

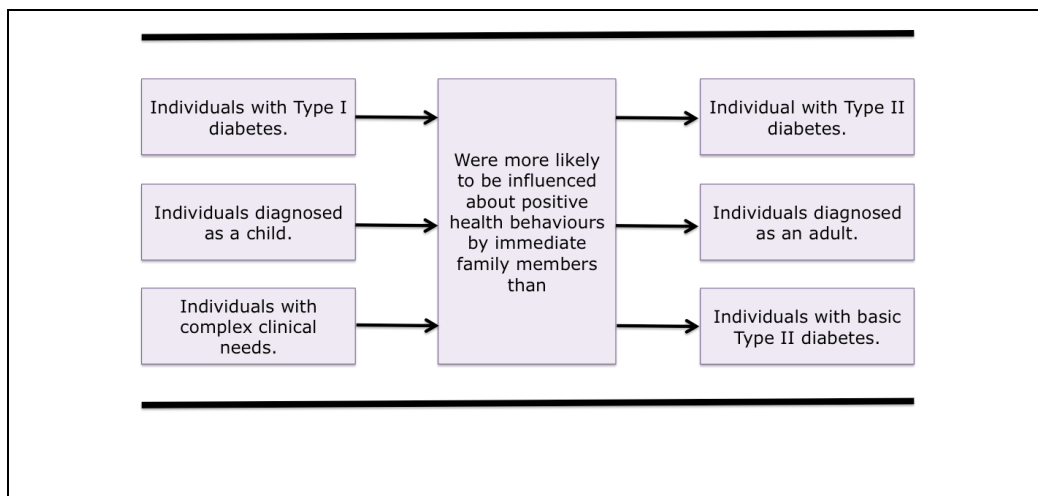


Figure 6.2: Micro summary findings.

One of the drawbacks of this research was that it focused specifically on adults living with diabetes. It was apparent from the current questioning and the review of the disease that the diagnoses of individuals with Type I diabetes occurred when they were children (under the age of 18 years). The impact of this failing on the research will be discussed in chapter 8.

Another axial theme of the micro system related to those individuals who had to look after young children (looking after young children). It became apparent that mothers of very young children living with diabetes, who had no supportive networks to rely on, selected not to attend a course (the supportive networks were either grandparents or other close relatives). From the research it was apparent that it was only relevant to individuals who were offered a course at a specific time. These individuals stated that the courses were inconvenient because they could not afford or obtain any childcare support. Interestingly there were a number of parents that were able to attend because they had the infrastructure in place to cater for this inconvenience. Based on these findings the following proposition was recommended by the thesis (see Figure 6.3):

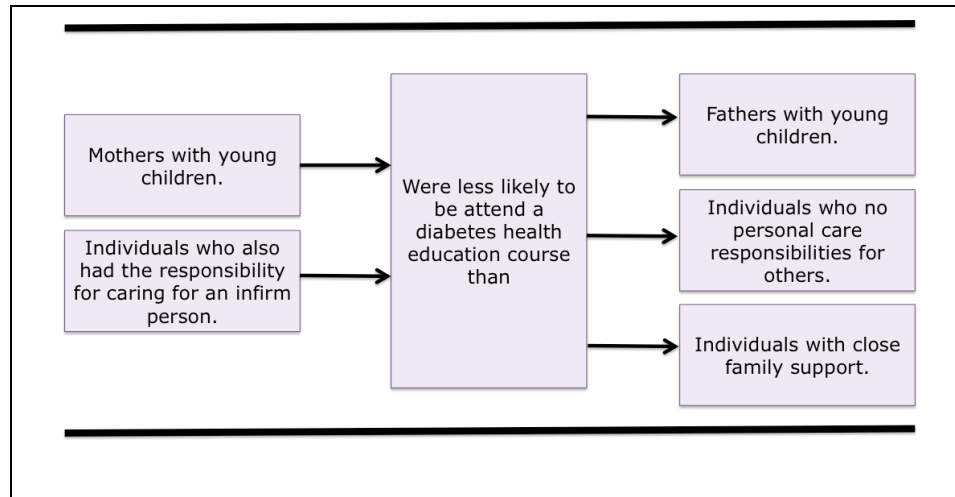


Figure 6.3: Proposition 1, New findings from the study.

The research also identified an axial theme for the behaviour drivers: future family support. Most of those interviewed who had families wanted to change their health behaviours so that they would either ‘be around to support their family in the future²⁷’ or ‘not place an unnecessary burden’ on their families should their condition deteriorate.

6.4.4 The Meso System.

The meso system focused on establishing what impact each micro element interaction had on influencing health behaviours: more specifically the focus was on the links between family and the diabetes structured education course plus work and the diabetes structured education course.

The profile of the cohort that volunteered to take part in the study only included individuals who were either in employment, retired or they were the spouse (or partner) of an individual who was in employment or had retired. It was unfortunate that the study was not able to attract anyone who could be categorised as being “long term unemployed” (in this case over one year): the impact of this shortfall will be discussed in chapter 8.

A new axial theme was identified: taking time off work, 14 of the 32 participants interviewed were in either full or part time employment. 6

²⁷ This theme refers to the individual either being alive to see and be part of key events with their families (weddings, births etc) or to be well enough to participate and support families at these key events.

saw themselves as 'blue collar' (manual) workers and 8 as 'white collar' (professional) workers. It was apparent from the research that individuals who were in the category of 'blue collar' workers were less likely to attend a diabetes structured education course if it meant having to take time off work. These same individuals also stated that they would consider attending such courses if they had been given a wider option of attendance times (i.e., the option of attending an evening or weekend course). These 6 'blue collar' participants were individuals who were only offered courses that ran over six weeks. Even though these courses were designed to only be two and half hours long, the individuals felt that they would need to take, at least half a day's holiday or at worse, a full day's holiday, which they were reluctant to. They did say that had they been offered a course that only lasted for a day then they would consider sacrificing a holiday to attend.

"I need two jobs to make ends meet, I really cannot afford to take time off at the moment even though I know that I should..."

Participant 3 (Type II, Blue Collar)

"Taking time off is not a problem for me, my boss is very flexible and as long as I make the time up it is ok."

Participant 31 (Type II, White Collar)

Interestingly there was a perceived change in dynamics regarding this proposition depending on whether the individual was a 'blue collar' worker (manual labourer) or a 'white collar' worker (professional person). It seems that the 'white collar' workers either had more flexibility in getting time off or less concern about taking it as holidays. The data, which was corroborated by the survey can be seen in the statistical analysis summary highlighted below.

An independent-samples t-test was conducted to compare the perceived attitudes of individuals employed with individuals who were unemployed in relation to the importance of attending a diabetes structured education course. There was a significant difference in the scores for those who were employed (N= 131, M=2.92, SD=1.473) and those who were unemployed (N= 46, M=3.96, SD=1.246), $t=-4.281$ (175), $p=0.000$. These

results suggest that individuals who were employed were less likely to attend a diabetes structured education course if it was only provided during normal working hours²⁸. Here the result is significant ($p < 0.05^{***}$), thus we accept the alternative hypothesis. Using G*Power the effect size was calculated to be 0.76, which can be classed as large (Cohen, 2013). The power was 0.95, meaning that 95% of the study is likely to achieve the alternative hypothesis.

The participants who classed themselves as retired had the greatest flexibility. For those that had already attended a course, they stated that either the course timings were not an issue or that they had managed to re-arrange their diaries to cater for the course schedule. For those that have not attended they provided the same response. As the study identified earlier, most PCTs that run courses only provided one course timing option. Both groups did say it would be nice to have been given more of a choice.

There were no noticeable differences in the responses from those living with Type I diabetes and those living with Type II. A summary of the findings and proposition can be seen in Figure 6.4:

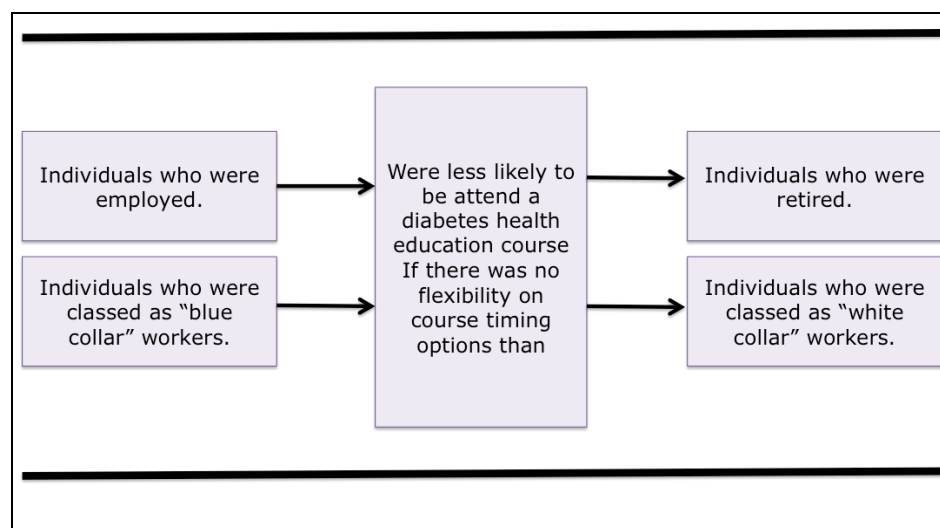


Figure 6.4: Meso summary findings and proposition.

The research also identified an axial theme for the behaviour drivers relating to the work environment: maintaining employment. Most of those

²⁸ Normal working hours was stipulated as being 9am to 5pm, Monday to Friday.

interviewed who were in employment (many of which were Type I) stated that they needed to adopt positive behaviours to ensure they could keep working. The concern that they would fall ill and miss out on mortgage payments was very prominent in the theme. Those in employment with Type II seemed less concern even though they were all aware of the future potential impact. One stated that “you have to live life to the full, you could get knocked down by a bus tomorrow you know”.

6.4.5 The Exo System.

The exo system element focused on the impact of the policies adopted by each PCT. It should first be noted that the National Institute for Health and Care Excellence (NICE) recommended that structured health education programmes should be made available to all people with diabetes at the time of initial diagnosis and then as required on an on-going basis (NICE, 2004 & 2008). Taking this point into consideration and linking it with the participant interviews my research identified an axial theme called ‘availability of courses’.

It established that those who had attended a course only did so when the PCT provided the facility. Three participants, who were interviewed, stated that they had contacted their diabetes specialist nurse asking to attend the X-Per programme only to be told that the PCT did not do that particular course. I selected sixteen individuals from the list of ‘willing participants’ who had not attended a diabetes health education course. Four of these sixteen participants who did not attend a course stated that they were not aware of existence of any diabetes structured educational courses and have never been told that they should attend one. This theme is backed up by the census data, which demonstrated that 56.6% of PCTs either did not know or did not deliver Type I courses and 42.8% of PCTs either did not know or did not deliver Type II courses. This would roughly equate to half the population of England, demonstrating that if you live in an area that does not provide a course then you would not be able to attend one (PCTs only provide services for a given geographical location).

A further 8 of the 16 individuals (all Type II) who attended a diabetes health education course did so within a year of being diagnosed. It was identified that only 53 of the 117 Type II diabetics had completed a course. The mean was 50.02 weeks from time of diagnosis to attending a course. The test value was selected as 26 weeks because this was half the year. The results are significant ($P < 0.05^{***}$) so we can reject the null hypothesis.

The findings were not replicated with Type I diabetics, readers should be reminded that most Type I diabetics are diagnosed as a child. This study only focused on adults living in England, the relevance of the issues identified will be explained in more detail in the chapter. The thesis can summarise the discoveries as follows (see Figure 6.5):

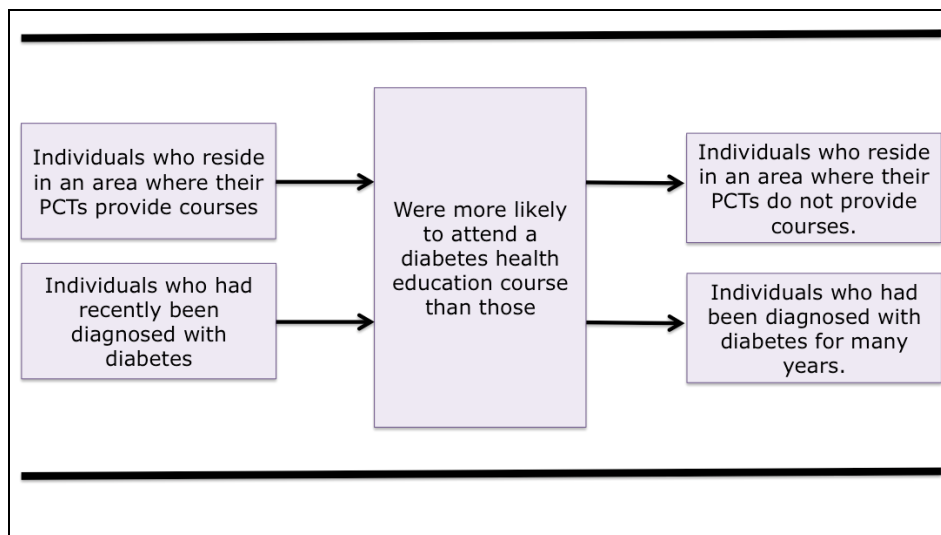


Figure 6.5: Exo summary findings.

The research also identified an axial theme for the behaviour drivers for this element: Information and Guidance. Most of those interviewed were not able to provide the researcher with a definitive list of what health behaviours they should adopt. They all stated that managing diet and exercising were key, but could not specifically state what that meant to them. Many use the Diabetes UK website as their primary port of call.

6.4.6 The Macro System.

The macro system focused on identifying what impact cultural and social class differences have on an individual's ability to attend a diabetes

structured education course and how they influenced health behaviours. It was hoped that this research would be able to identify a number of individuals who were classed as “long term unemployed”, i.e., someone who either been out of work for more than one year or were the spouse or partner of an individual who had been out of work for more than one year whilst they themselves were not working. Unfortunately, my research was not able to engage anyone from this category; it also struggled to engage with individuals from the black, minorities and ethnic (BME) communities. The limitations of these failings will be discussed in chapter 7.

Originally I had hoped to target and interview 30 individuals living with diabetes, 15 from Type I and 15 from Type II. The profile was meant to have half the cohort from BME community²⁹ but the initial research only identified 3 respondents, this increased to 5 after the original 30 individuals had been interviewed (this is the reason why the final cohort number was 32, I felt it necessary to add the initial numbers to gain a better insight from this category of individuals).

From the five individuals who agreed to take part in the research, one was Type I and four were Type II. Three were from India, one from Pakistan and one from Singapore. The Type I was female with only one of the Type II being male. The axial theme identified in this phase was ‘eating habits’. Two of the five stated that they had attended a course but complained that the course was very ‘Anglo-Saxon’ particularly in relation to the advice on food. They felt that no consideration was given to the different cultural eating habits, which made it difficult to really understand what they should be doing. The individual from Singapore was never offered a place so could not comment on the issue of the course being ‘Anglo-Saxon’. The final two (from India, females and living with Type II diabetes), had selected not to attend because they had heard that it would not be relevant to them. On further examination they both stated that their concerns were based on the fact that the recipes and cooking advice would not be relevant for their life style.

²⁹ The term BME used in this research is not strictly correct because this element was focusing specifically on individual from India, Pakistan and South Asia, not those ethnic communities that have similar cultural beliefs to most white British people.

Only two of the five individuals in this category felt a driving need to change their health behaviours: these were the individuals living with Type I. Both felt that their Diabetes Specialist Nurse was an important source of information. The one from Singapore had also procured a number of books to guide her. They both stated that it was the concerns of future complications that drove them to change. The other three (all with Type II) seemed to have a very laissez-faire attitude, one stating that her cousin had the condition and was doing what ‘normal people’ do (i.e., eating what they want) so she could do the same.

As the research was only able to recruit 5 BME respondents from the 281 sample, no meaningful statistics could be completed. Based on the interviews the following propositions are suggested (see Figure 6.6):

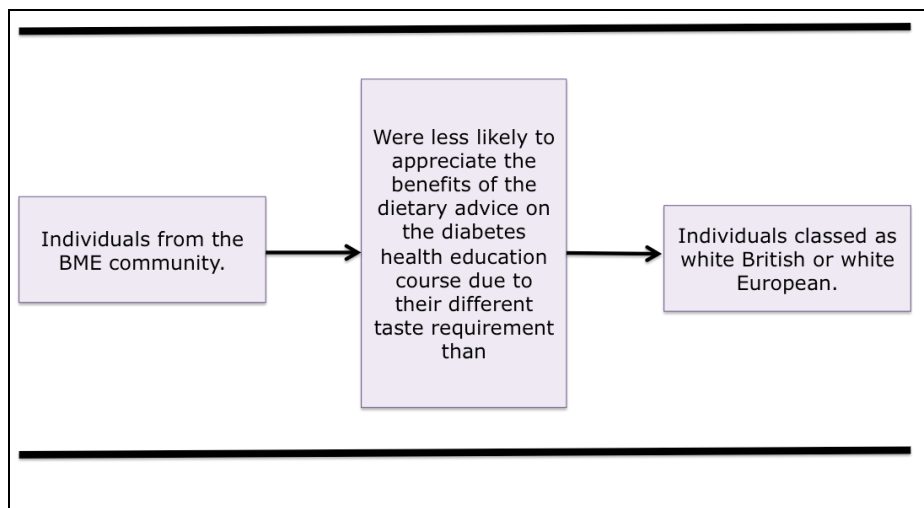


Figure 6.6: Macro summary proposition 1.

All these individuals stated that they saw themselves as being ‘fully westernised’ but they did feel that such courses would be difficult for new immigrants. Language specific variants would be helpful, they also felt that certain cultures would prefer to attend single sex courses (see Figure 6.7).

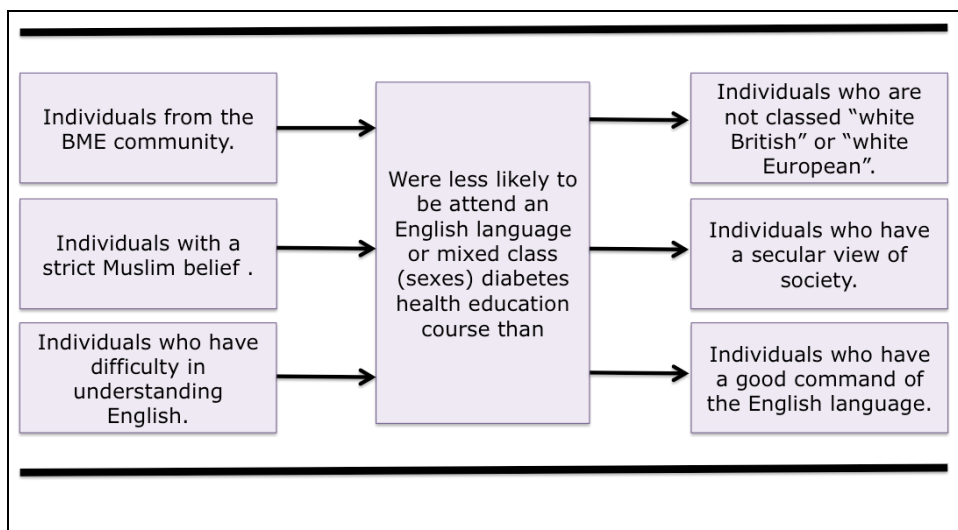


Figure 6.7: Macro summary proposition 2.

6.4.7 Time.

When considering the issues of time, researchers should really focus on how individuals change over a given period (Bronfenbrenner, 2005 and Thudge et al., 2010). This meant that a longitudinal study would be the best way of testing issues related to time (ibid), unfortunately the limitations of a doctoral research mean that this is difficult to do, the details will be discussed in chapter 7.

Bronfenbrenner (1994) also stated that the proximal process should occur over extended periods of time to be effective. With this in mind the study chose to focus specifically on what impact the length of the course had on an individual’s ability to change their health behaviours. The findings from the survey are illustrated below.

To test the hypothesis that the perceived level of influence that the length of a one-day diabetes structured education course ($M = 3.91, SD = 0.626$) and the perceived level of influence that the length of a 6 day diabetes structured education course ($M = 3.87, SD = 0.707$) are not equal, a dependent samples t-test was performed. Prior to conducting the analysis, the assumption of normally distributed difference scores was examined. The assumption was considered satisfied, i.e., the skew $<|2.0|$

and kurtosis $< |9.0|$ (Schmider et al., 2010 and Posten, 1984). It should also be noted that the correlation between the two conditions was estimated at $r= 0.87$, $p < 0.001$, suggesting that both cases are highly correlated: participants believe that the short and the long course can help them manage their diabetes. The null hypothesis of equal perception means was accepted $t(280)= 1.924$, $p > 0.05$. There was no statistically significant difference between the mean perceptions of the course length and its impact on influencing behaviour change.

Based on Bronfenbrenner's (2005) propositions highlighted above it was envisaged that the participants would find the longer courses more engaging, giving them a better understanding of the required behaviour change requirements. The results from the survey were inconclusive so participants were asked to comment on their feelings about the length of the course. Examples of the feedback were as follows:

"You asked me if I thought the length of the course was right, I am not sure if I can answer that without first comparing a variety of courses... I have never had any formal education about diabetes, it was just nice to spend a day with the dietician..."

(Participant 10: Type II)

"My training was for one day, the course was called DEREK, I think, it stood for diabetes education something or other. It was good, but I meet some people at a diabetes show, not a show, a workshop, which was run by Diabetes UK, erm... they said their education was over 6 weeks, one day a week. Thinking about it I probably would have learnt more they, but erm... I don't know, well maybe."

(Participant 21: Type II)

"I've never had any training paid for by the NHS, it was my mum who taught me everything about diabetes. (Did she get any training?) Err... I don't know, err... I don't think so, err... but I can't be sure. (Would you like to receive some training?) Yeah, why not, you're never too old to learn... do you know before I saw this research thingy I didn't know you could get training... I am going to speak to my diabetes nurse about it. (What length of course would

suit you?) I don't know...err...any I think... err... why are some people getting it and not others...do you know?"

(Participant 25: Type I)

All the participants who had attended a programme were ambivalent about the its length, none of them had every considered the implications associated with different course lengths. There were a couple who had attended two different types of courses: they could see that the longer course was more beneficial on reflection.

The matter of time became more of an issue in other aspects. As highlighted in table 6.16, this produced Axial Themes of 'taking time off work' and 'availability of courses' resulting in the Core Theme known as 'Flexibility', examples of the text from the interviews included:

Axial Theme: 'Taking Time Off Work':

"I really cannot afford to take time off at the moment even though I know that I should".

(Participant 6: Type II)

"Taking time off is not a problem for me, my boss is very flexible and as long as I make the time up it is ok".

(Participant 13: Type I)

"I don't want my boss to know I have diabetes, my job is very demanding physically and I don't want him to think I cannot do it".

(Participant 23: Type I)

Axial Themes: 'Availability Of Courses':

"I can't take time off work, if the course was in the evening or weekends then I could do it".

(Participant 11: Type II)

"I tried to get myself on the XPERT course but was told that they don't do it in my area".

(Participant 26: Type I)

“The time of the course is not convenient for me, they are not very flexible”.

(Participant 29: Type II)

6.4.8 Other Findings.

In addition to the comparisons against the PPCT model there were two other factors that were investigated: the first being the stakeholder involved in the process and the second being the individual’s ideal view of what a diabetes health education course should look like. Let’s now look at these individually.

There are a large number of stakeholders involved in influencing an individual to change their health behaviours and attend the diabetes health education courses. A number of these were already considered in the context section of this chapter (i.e., the micro, meso, exo and macro systems). What I now want to do is focus on the HCPs that influence the individuals. The one person that stood out to be the most influential was the Diabetes Specialist Nurse (DSN). The DSN was the stakeholder that had the most contact with the individual and they often took part in the delivery of the diabetes health education courses. What was not clear was how they fitted into the social marketing process.

When the participants were asked what an ideal diabetes health education course would look like, most presented me with a very similar set of axial themes that were as follows:

- The course should be flexible with their timings (not just during the normal work hours).
- The educators should be professional and knowledgeable: they need to be able to get their message across.
- There should be some form of follow up.
- There should be an electronic resource that can be accessed.
- There needs to be language specific courses.

6.5 Patient Participant Summary.

All the results illustrated in section 6.4 above are essentially a summary of the content, thematic and statistical analysis that was conducted with supporting information from the participant survey and the census. The completed codebook for the content analysis can be seen in appendix 9. This section also included the additional themes identified through the thematic analysis.

This concludes the processes of phases one and phase two. Many of the findings were used to develop the questions needed for phase three of the study (the details can be found in appendix 7). Let us now look at the results of the interviews with NHS practitioners.

6.6 NHS Practitioner Interviews.

The interviewing of the NHS practitioners was phase three of the research. It utilised a qualitative means: the thematic analysis of semi-structured interviews using a grounded theory framework (Corbin & Strauss, 2008). The objective was not to develop theory but to use an inductive approach to investigate why these practitioners were doing what they were doing. I believe that the benefit of incorporating the Grounded Theory framework to the Thematic Analysis approach is to ensure the provision of a clear and structured approach to tackling the problem.

The sampling process adopted was a purposive approach one to start with, it identified a selection of HCPs from across NHS England who were either successful or not in delivering diabetes health education courses. It used the results of the census (from phase one) to identify a range of possible providers who supplied the most courses and a range who could not account for any deliveries. The objective was to establish³⁰:

- Why they thought patients would or would not attend a diabetes health education course.
- What they did to encourage individuals to attend these diabetes health education courses.

³⁰ These objectives were set post evaluation of the patient interviews and the freedom of information request.

- Why the selected to deliver a specific course(s).
- Why they thought they were successful or unsuccessful.
- Why they choose to monitor or not monitor numbers.
- Their thoughts on what could be done better.
- Who were the key stakeholders within the process.

Initially the research opted to target just HCPs, but using the concept of Theoretical Sampling (Corbin & Strauss, 2008) it became clear that the research should also interview NHS commissioners, course providers and administrators. Unlike phase one, where a specific number of individuals living with diabetes were targeted, this element utilised the concept of Theoretical Saturation (Corbin & Strauss, 2008): i.e., interviewing as many people as required until no new data was presented. In an attempt to target a balance cohort of practitioners who provided poor and excellent delivery, the departments within the NHS were contacted alternatively (i.e., the first interview was with a poor performing department, the second interview was with a good performing department, the third a poor performing department etc). This meant that when theoretical saturation occurred there would be an equal sample of each. The final number interviewed was 14, 4 Diabetes Specialist Nurse, 2 Dietitians, 2 Diabetes Consultants, 2 General Practitioners (GPs), 2 Commissioners and 2 Administrators. The semi-structured interviews used can be seen in appendix 7. Let's now look at a summary of the findings for the objectives for this phase.

6.6.1 Why a PCT opted to deliver a specific course(s).

The reasons for selecting the courses used each PCT was varied. They can be categorised as the following axial themes:

- **Historic** - that's what was done in the past, so why change it. There have been strong relationships built with the providers (DAFNE, DESMOND and Xpert), this has created trust in their ability to deliver and quality.
- **Experience** - the delivery of the courses were carried out mainly by the Diabetes Specialist Nurses and the Dietitians, there would be a cost to re-train both in terms

of time and money which the PCT could ill afford. Changes rarely took place once a course had been selected.

- **Cost savings** – there was one particular DSN who had stated that their PCT had adopted a particular course to save money. Rather than opt for one of the national programmes they would develop their own (replicating the national ones) but streamline it so that it would not be so resource intensive. By developing their own course they would also not have to pay for the licences or the quality audits.
- **New Staff** – The changeover of staff also had an effect on the course selection, although the driver was the experience of that new staff member (i.e., they had been trained to deliver course “X” so that is what the PCT would do in the future). There was also an example of one PCT that had a new Lead Consultant who enforced change with no consideration of the history or experience of the existing staff.

6.6.2 Deciding on the numbers to deliver within a year.

The axial themes for deciding on the number of courses to deliver are as follows:

- **Budgets** – The numbers are based on financial budgets for the year. These are agreed by the senior management team, which include the Lead Consultant and the Commissioner.
- **Resources** – Where there were issues with resources (mainly the DSN and Dietitians), the Diabetes Health Education Courses were seen as expendable and could be dropped. Examples of the issues included sickness and maternity leave.
- **Marketing** – Engaging the potential patients was not always easy. In most cases it would be a “word of mouth request” during a consultation. In some cases this process would be missed due to the time pressures at the normal consultations. It was also identified that there was little or no money within the

department's budget to do general marketing of this type of activity.

6.6.3 Why they thought they were successful or unsuccessful.

It became clear to me that many HCPs were ambivalent about the delivery of diabetes structured education courses. There were two exceptions, the first related to those organisations that developed their own courses and the second related to the small number of PCTs who saw themselves as 'forward thinking' (words of a participant) in terms of the delivery of diabetes healthcare.

This section will now look at the axial themes identified during the interview process.

- **Restructuring** – One particular participant who was interviewed (classed as an administrator for this research but was actually a project manager brought into redesigned the process) talked about how he looked at the existing processes and identified the weakness, which were corrected. The two big revelations in his opinion was the introduction of 'lay educators' (volunteers, living with diabetes who delivered the courses) and dedicated administrators used to engage the patients to attend the course.
- **Resource limitations** – The biggest complaint amongst the DSNs and Dietitians was their workload. They felt there were being asked to do too much. One had said that she was charged with managing the administrative process as well as her clinical duties and that she did not have the time to contact the right individuals that needed to attend the course.
- **Marketing** – The Commissioners that were interviewed said that the biggest weakness of the process was engaging the 'hardest to reach' elements of the community. They felt that most people who attended the courses could be categorised as 'white middle class' individuals. They would like to get more people from the high-risk groups to attend but did not know how to achieve this (i.e., individuals from the socially deprived areas and those from the BME).

- **Budgets** – A course administrator (from one of the national courses) said that their efforts were focused on selling their courses to the various PCTs and competing with other providers. They felt that a lot of pressure is being put on them to reduce costs.
- **Confusion** – The GPs felt somewhat confused about what was available and what the key differences were in the various courses on offer. They could do with some form of training themselves; it would be an ideal CPD topic (continual professional development which GPs have to attend). The criticism is why have so many different types on offer.

6.6.4 Why they choose to monitor or not monitor numbers.

The results of the census identified a large number of PCTs who were not able to provide the details of the number of people who had attended a diabetes structured education course. If we take into consideration the fact that GP practices are paid for recommending that individuals with diabetes attend a course it would be reasonable to expect that there would be a system to close the loop by comparing the numbers recommended and the numbers attended: unfortunately this was not the case. The following axial themes were identified:

- **Data Protection Act** – a number of participants quoted the Data Protection Act as their primary reason for not monitoring through put. They stated that education was subcontract to another trust and that they were not allowed to hold the details. Interestingly there are also a number of PCTs who are able to subcontract out the courses and still keep a record of what had taken place.
- **Resources** - It seems that the overwhelming response from DSNs and Dietitians was the issue of resources. They said they would like to have a better monitoring and control process but lacked the resources to do it.

6.6.5 Their thoughts on what could be done better.

It was clear from my research that the physicians and commissioners involved in the process had a sense of apathy: they could not really see a major problem with the way things were currently being done, apart from the issue of resource, which they argued was a common complaint. They felt that the NHS had other more important issues to resolve: the most pressing being the introduction of the new Clinical Commissioning Groups. This adds a new dimension to the research, which would be impossible to solve at this stage: the dimension being, the level of acceptance by key stakeholders that concepts like social marketing are important to the facilitation therapeutic recovery. There was however an interesting axial theme raised by the administrators:

- **Data Protection Act / Resources** – one way of engaging potential patients was by simply writing to them. The only databases that have a comprehensive list of those individuals who have diabetes are located at the GP practices. The administrators would have to develop mailshots, which the GP practices would send out (they were concerned about breaching patient confidentiality). In the first year many practices were happy to do this because it was a way to earn their QOF points. Unfortunately, in the later years they were less keen on providing the service because they couldn't claim again if a letter had already been sent to a patient (the systems are such that the administrators are unable to identify who had already attended).

6.6.6 Who were the key stakeholders in the process?

The final set of questions focused on identifying who the main stakeholders were in the process and what their roles were. Rather than break these into themes, I propose listing the individuals with a brief summary of their role in the process. This summary can be seen in Figure 6.9 and Table 6.17.

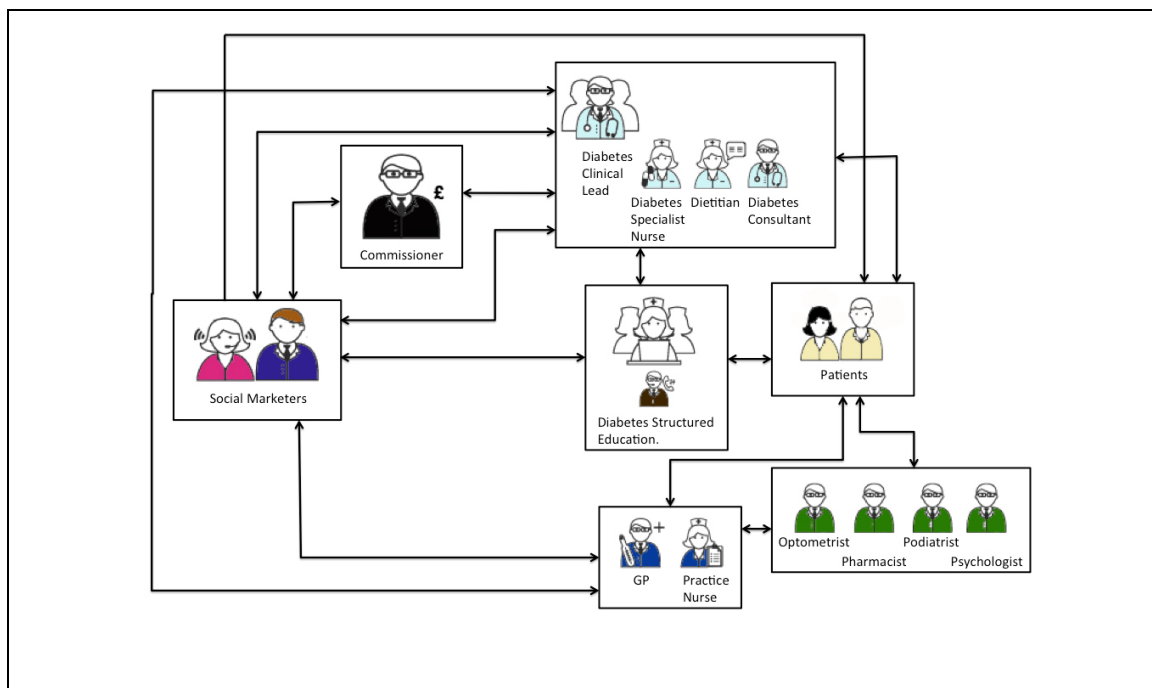


Figure 6.8: Stakeholder impact on diabetes structured education.

Table 6.17: Influence levels of stakeholder’s ability to encourage patients to attend structured education programmes.

Stakeholder.	Level of influence with the Patient.	Level of influence on deciding which course to run.
Commissioners	Nil	High
Lead Diabetes Consultant	Low / Medium *	High
Consultant physician / Diabetologist	Low / Medium	Low / Medium
GP	Low / Medium	Low
Diabetes specialist nurse (DSN)	High	Medium / High
Practice nurse	Low / Medium	Low
Dietitian	High	Medium / High
Optometrist/ophthalmologist	Low	Low
Podiatrist/chiropract	Low	Low
Psychologist	Low	Low
Pharmacist.	Low	Low
Administrators.	Low	Low

The impact on the social marketing process of each stakeholder will now be discussed in detail.

6.6.6.1 Commissioners.

The commissioners had no direct contact with patients, they were however instrumental in setting and controlling the budgets for each department. They ultimately dictated how many patients could attend the courses in a year. There would be debates and discussions with the

Clinical Leads (Heads of Departments) on the planning of the future requirements, they would then become the main point of contact for external suppliers who were selling courses or licences to the PCTs.

The organisations that had developed the Diabetes Health Education Courses would spend a great deal of time engaging with Commissioners, they had to adopt classic commercial marketing techniques during this phase. Although the Commissioners had the final say as to the number of courses that can be run, the ultimate decision on the type of course was down to the Clinical Leads.

6.6.6.2 Clinical Leads.

It was the Clinical Lead who managed the Diabetes Department, even though the Commissioner managed the setting of the financial budgets for the Department, the Clinical Lead would determine which particular course was selected. It was also identified that in some cases the Clinical lead would be partly influenced by the Diabetes Specialist Nurses (DSNs) and the Dietitians. This was because it was the DSNs and the Dietitians who are trained to deliver the various courses: so moving from one type of course to another can be disruptive and require additional training for the staff.

In most cases these Clinical Leads also acted as the Diabetologist (the Diabetes Consultants) as such would have contact with patients, however it was identified that the main interactions occurred with DSNs and Dietitians. It should be noted that most of the individuals living with diabetes that were interviewed could not specifically identify where the physicians stood in terms of the hospital hierarchy.

Clinical Leads were seen as a 'high influencer' of deciding which courses to run, the Diabetologist were 'low / medium influencers' of deciding which courses to run. Both groups were also seen as low to medium influencers of getting patients to change health behaviours and attend courses.

6.6.6.3 Diabetes Specialist Nurses and Dietitians.

The DSNs and dietitians had a 'medium to high' influence factor in getting a PCT to select a specific diabetes health education courses. This was because, in most cases, it was these individuals who delivered the course: if they were trained to manage a specific course it was highly likely that the department would continue to deliver that same course because it would offer the least amount of change.

DSNs and dietitians were also identified as the stakeholders that had the most influence on patients. This is because it was these individuals who spent the most time with the patients: at best it was twice a year on average it was once a year. In most cases they also delivered the diabetes health education courses.

Patients saw the DSNs and dietitians as their first 'port of call' for any of the diabetic problems; they were more likely to contact them if they had an issue with the management of their diabetes than any other HCP.

The DSNs and dietitians were somewhat concern with the process of managing the diabetes health education courses: many had little or no support. They had to do course management and administration: this reduced their ability to provide a comprehensive and complete service. There were a few PCTs that had a more progressive approach to the problem: they had designed the infrastructure to included administration and marketing services to support the DSNs and dietitians. Some PCTs are also now asking the providers of diabetes health education courses to manage the whole service for them, freeing up DSNs and dietitians to concentrate on medical issues.

6.6.6.4 General Practitioners (GPs)

GPs were key at 'sign posting' patients with diabetes to attend structured educational programmes. As mentioned earlier they received QOF points for directing individuals to attend such courses. These QOF points were a financial incentive for the practice: it should be noted that the practice was still paid even if the individual had not attend a course.

The view of GPs amongst patients is varied, most of those interviewed said that they knew more about their condition than the GP, they also felt that the DSNs and dietitians were more important to them. There were a small number who did say that the GPs were key to the management of their conditions: these tended to be GPs who had a special interest in diabetes.

It was identified that GPs were the primary custodians of the patient database: they had the best ability of identifying the key patients that needed to attend the various courses.

6.6.6.5 Optometrist, Podiatrist, Psychologist and Pharmacist.

These HCPs were important in the management of 'contributing conditions' to diabetes but it appeared that they had very little impact in the 'sign posting' or decisions about what types of structured diabetes education programmes were run. The organisations that provide the diabetes health education course did not directly engage with or marketing to these types of HCPs due to their limited budgets and resources. There was one exception: a small minority of the providers will use psychologists to support the delivery of the diabetes health education courses. It tended to be limited to the Type I courses and the overriding reason why their use is limited can be attributed to the department's budget.

Individuals living with diabetes did not see these HCPs (i.e., the Optometrist, Podiatrist, Psychologist and Pharmacist) as the main influencers of their health behaviour. Although they did see the pharmacist as the main provider of medicines and drugs whilst the others were only seen when certain wider aspects of their health needed investigating.

6.6.6.6 The Structured Education Provider.

There are basically two types of structured education provider, those directly affiliated to the NHS and those that are independent. The independent organisations tended to be charities or social enterprises, those affiliated to the NHS tend to be part of the Diabetes Department. There are three nationally recognised programmes:

- DAPHNE, for Type I.
- DESMOND, for Type II.
- X-PERT, for Type II.

These organisations have an infrastructure that is very similar to the commercial sector. They sell their programmes under a licence to the various PCTs (now CCGs), provide training programmes for the educators, training materials and ensure that delivery is in line with the required quality standards.

Much of their marketing activity is directed towards the commissioners and HCPs managing the diabetes care pathways. There was no national promotional activities because of the large variation in offerings from each PCT: the providers stated that when they did do national promotional activities patients became frustrated when they discovered that the programmes were not available in their area.

Those that provided local versions tended to develop programmes that were based on one of the national variants. Interestingly one HCP who was interviewed stated that the reason for doing this was to save the department money: it would not have to pay the annual licencing fee and on-going quality assessments. The issue of Intellectual Property infringement could not be answered.

6.7 The Product Definition Assessment.

In this section my research will combine the results of the questions asked along the whole CVC to identify the ideal product.

6.7.1 The required behaviour change.

Based on the review of the various policies, care pathways and procedures associated with diabetes and the interviews with HCPs it was established that diabetics had to adhere to a list of different behaviour changes if they wanted to secure a future of increased health and wellbeing. These changes relate to eating habits, exercise, medication management self-management and monitoring and control of the condition (see chapter 4).

The analysis identified that the only way to do this was through some form of education. The behaviour change associated with this element related to the creation of time: i.e., individuals had to make time to attend the course. It was this time element that was identified as the critical factor as to whether an individual would or would not attend a course.

6.7.2 Objective of the product.

I had established that the product for this particular social marketing initiative was the diabetes education course. It also identified that the key objective was to provide the patients with the necessary tools and information needed to manage their diabetes.

6.7.3 Product theory.

My study identified that the national providers utilised Social Cognitive Theory as the primary principle for change on their diabetes structured education courses. There was very little information relating to the local courses which does raise the question, were they adhering to the principles set down by NICE in the creation of these courses.

6.7.4 The required strategic alignment.

I must remind readers that the required strategic alignments for diabetes structured education courses were taken from NICE's care pathway for diabetes. *"There are four key criteria headings, which state that education programmes should (DH & DUK, 2005, p12):*

- *Have a structured, written curriculum.*
- *Have trained educators.*
- *Be quality assured.*
- *Be audited."*

It was identified during the interviews that not all the providers were able to demonstrate that they had adhered to the guidelines.

6.7.5 The targeted customers.

Again, I must remind readers that the targeting of customers should be based on the guidelines provided by NICE, in that each PCT should have targeted all patients and carers who had not already attended a diabetes structured education course. My interviews identified that most only provided courses to newly diagnosed patients and not the carers, some had language specific variants for different communities but no evidence of any other specific targeting strategy.

6.7.6 Identifying customer's needs.

Interviews with patients had established that time was the primary competitor for this particular behaviour requirement: there was an element of the sample that required some form of flexibility in the course timing, i.e., it needed to be in the evenings or weekend and not just during the day. Others wanted the course to be as short as possible. My interviews also saw some individuals from the BME community would preferred the dietary options to be more specific for their culture. When these points were raised with the HCPs and administrators not all of them were able to provide a full range of options, citing budgets as their limiting factor.

6.7.7 Addressing the competition.

When the NHS staff were asked to comment on what they thought the underlying competitor was for an individual adopting the required behaviour change they were all confused by the question. None of them had considered this concept.

6.7.8 The exchange requirement.

Bearing in mind that the NHS staff, who were interviewed were not able to identify the behaviour competition, it should come as no surprise that the same staff were unable to identify the exchange requirements.

6.7.9 The product positioning.

The primary positioning of the products identified were those that provided language specific courses. They were able to specifically say that certain courses were designed for individuals from specific cultures. There were also a few PCTs that provided courses to those individuals at risk of diabetes (i.e., they had not yet been diagnosed).

6.7.10 The Priority Design Criteria.

The study identified that only the national courses were investing the time and money needed to develop courses to target specific market segments. XPERT were also now working with PCTs (now CCGs) to develop courses that are delivered by “lay-individuals” (people living with diabetes).

6.7.11 The product channel requirements.

All the participants agreed (NHS staff and those living with diabetes) that courses should take place at the local level (community centres, village halls, etc). There were a few individuals living with diabetes that said they would like some form of electronic portal to continue with their development. All the interviewed NHS staff said that the cost would be too prohibitive. Diabetes UK in conjunction with BUPA have since developed a portal for individuals living with type II diabetes.

6.7.12 The regulatory requirements.

The main regulatory hurdle in this process is the sharing of information. The targeting of individuals becomes very difficult due to the data protection act.

6.8 Final Summary.

This completes the presentation of the results and findings. In the next chapter I shall spend more time developing the themes into the core formats. I will also be discussing the specific issues identified and what impact it had to the final study.

Chapter 7: A Critical Review Of The Research Findings.

7.1 Introduction.

This chapter has been written to critically review the results and findings of my research. It starts by flowing through the elements of the PPCT model, it then examines how the customer value chain can be incorporated into the SEF, linking in the product definition assessment. It ends by bring together all the factors discussed and puts forward a proposal on how the SEF could be enhanced.

7.2 Background to the discussions.

To put the issues into perspective I start with a summary of the main quantitative results from the patient questionnaire (see Table 7.1). The objective was to confirm or disprove the propositions put forward by Bronfenbrenner (2005) and demonstrate that wider ecological factors as well as biological differences will have a significant impact on an individual's ability to adopt positive behaviour traits.

Readers will no doubts appreciate that there are a large number of options that I could have focused on, but based on the results of my earlier pilot study³¹ the decision was made to restrict the review to: type I and II diabetics (the Person); diabetes health education courses that were restricted to normal working hours (9-5, Monday to Friday) or those that were provided during the day, evenings and weekends (the Process); the microsystem (context one) was restricted to the diabetes health education course, the family and work; the mesosystem (context two) was restricted to the diabetes health education course plus family interaction and the diabetes health education course plus work interaction; the exosystem (context three) established if there was an equal opportunity for all diabetics to attend a course; the macrosystem

³¹ For parsimonious reasons this has been excluded from the thesis.

(context four) focused the impact of cultural differences and; the time element looked at the impact on the length of each course.

Table 7.1: A summary of the main findings from the quantitative analysis from the patient questionnaire.

Null Hypothesis	Test	(df) t	p	Effect	Decision
H ₀₁ : Genetically different individuals will have equal attitudes towards engaging in diabetes health education courses and changing their behaviour (in relation to diabetes). Person	Chi-Square		414.41	Small (r=0.05)	Reject
H ₀₂ : Participants are equally likely to engage with the non-flexible and flexible courses. Process	Paired t-test	(280) -16.013	< 0.05	Large (r=0.67)	Reject
H _{03a} : Genetically different individuals will have an equal reliance on the DHEC micro-system in the management of their diabetes. Context: Micro	Independent samples t-test	(279) 1.032	0.303	Large (r=0.76)	Accept
H _{03b} : Genetically different individuals will have an equal reliance on the family micro-system in the management of their diabetes. Context: Micro	Independent samples t-test	(279) 21.951	< 0.01	Large (r=2.6)	Reject
H _{03c} : Genetically different individuals will have an equal reliance on the work micro-system in the management of their diabetes. Context: Micro	Independent samples t-test	(279) 1.095	0.459	Small (r=0.02)	Accept
H _{04a} : The family-DHEC meso-system will have an equal effect on influencing families with and without school age children to attend a standard DHEC . Context: Meso	Independent samples t-test	(279) 1.045	< 0.05	Small (r=0.13)	Reject
H _{04c} : the Work-DHEC meso-system will have a equal effect on influencing employed and unemployed individuals to attend a standard DHEC . Context: Meso	Independent samples t-test	(175) -4.281	0.000	Large (r=0.76)	Reject
H ₀₅ : There is an equal opportunity of being offered or not offered a place on the DHEC. Context: Exo	Z Test		-10.839	Medium (r=0.56)	Reject
H _{06a} : The Cultural macro-system will have an equal effect on influencing individuals to attend a standard DHEC (i.e., run Mon – Fri, between 9 and 5) compared to all other macro-systems . Context: Micro	Unable to recruit participants				
H _{06b} : The long term unemployment macro-system will have an equal effect on influencing individuals to attend a standard DHEC (i.e., run Mon – Fri, between 9 and 5) compared to all other macro-systems . Context: Micro	Unable to recruit participants				
H ₀₇ : There is an equal opportunity of believing that long courses will have an equal impact influencing behaviour change as short courses. Time	Dependent samples t-test	(280) 1.924	> 0.05	Small (r=0.09)	Accept

The results demonstrate that biological differences are significant when it comes to the adoption of positive behaviour changes. In relation to social marketing (focusing on health) I will go on to argue that conditions that are life

threatening will have a higher probability of individuals accepting behaviour changes. Unsurprisingly, individuals are more likely to engage with proximal processes that are more flexible: a key driver for adopting 'non-flexible' processes related to costs (a factor identified through the interviews with healthcare professionals). Depending on the scenario, family influences can enhance or hinder the adoption of positive behaviour traits: the same applies to the work environment. Despite NICE stipulating that diabetes health education should be part of the condition's care pathway, my study identified that not every individual is given the same opportunities in attending a course. Unfortunately, those issues relating to the microsystem could not be tested using the quantitative means because I was not able to engage with enough individuals from a South Asian heritage and individuals who were long term unemployed. I did gain some valuable insights through the semi-structured interviews. Finally, even though the results relating to the 'time' element of the PPCT model were not significant, other aspects, identified during the semi-structured interviews demonstrate the importance of this factor.

These results demonstrate that social marketers who focus just on the individual are not likely to engage with the total target market but those who adopt an ecological perspective, an example being Bronfenbrenner's (2005) PPCT model are more likely to be able to identify the holistic issues and develop campaigns that maximise the engagement with the target market. A solution that also addresses the criticism of social marketing, in that many scholars tend to only focus on the individual (Collins, Tapp & Pressley, 2010). The remainder of this chapter will critically review my findings, using the PPCT model as the guiding framework.

7.3 The Person.

In terms of social marketing the person is an extremely important factor: some have argued that this has been to the detriment of the discipline as many wider environmental issues have been ignored (Collins, Tapp and Pressley, 2010; Wallack et al., 1993 and Wymer 2010). Despite this, researcher must not forget that people are all different: Dickson (1982) promoted this fact and proposed that marketers should use a 'person-situation' segmentation approach to their marketing. Andreasen's (2002) and later the French and Blair-Stevens' (2006) benchmark criteria builds on this by stating that campaigners should

understand their target market in detail and never just provide one solution to the market.

As it currently stands, the SEF does not explicitly state how social marketers should deal with the different elements of the targeted market. Collins, Tapp and Pressley's (2010) work does however focus on the environmental context of the ecological theory. As we shall see later, this research has developed the SEF further by making the people element more explicit. Bronfenbrenner (2005, p23) believes that "*a combination of environmental and personal characteristics can produce developmental [and thus behavioural] effects that cannot be predicted from knowledge about each of these domains examined independently*" (note [...] was added to emphasise relevance to social marketing). This means that focusing just on the environmental context may miss a number of important characteristics that could determine the success or failure of a particular social marketing campaign.

My study hopes to overcome the gap by providing guidance that could be used to help social marketers deal with the different groups of people that exist on our planet. To achieve this the study must go back to the definition of social marketing where Andreasen (1994, p110) states:

"Social marketing is the adaption of commercial marketing technologies to programmes designed to influence the behaviour of target audiences to improve their personal welfare and that of society of which they are a part."

The way commercial marketers deal with different groups of people is through the process of segmentation (Blythe, 2013 and Masterson & Pickton, 2010). Segmentation usually focuses on demographic, geographic, behavioural and /or psychographic aspects of the individual (ibid). This study has demonstrated that such an approach may not be good enough for the purposes of social marketing, it advocates the use of Dickson (1982) 'person-situation' approach. In reality segmentation is far more complicated than this: Bronfenbrenner (1994) states that the genetic differences in people can have a big difference in how people develop and thus behave. It unlikely that social marketers will be able to always identify such differences in individuals, but what they can do is pick out some obvious traits that should be considered: as an example, individuals who are blind, or deaf or have learning disabilities will have

significantly different needs, yet this study identified that there were no obvious provisions for these groups in the current SEF model. It is proposed that further research is conducted to look at how inclusive social marketing campaigns really are.

From another perspective, this study was able to segregate two “more complicated” genetically different groups to test: those individuals living with Type I diabetes and those living with Type II. The key difference between the groups was, those individuals with Type I have to moderate their behaviours immediately otherwise major medical complications could occur including death. Those with Type II were unlikely to experience the effects of their non-compliance until many years later, as such their adherence to health behaviour changes were not as prolific as those with Type I diabetes.

My research will now demonstrate how knowing such facts could influence the design of a social marketing campaign. Before doing this I need to remind the reader that participants were recruited from the members of Diabetes UK, using an advert in its monthly magazine and their social media sites. Based on the statistical breakdown of diagnosed diabetics living England (HSCIC, 2006) it would be reasonable to expect that the profile of individuals who responded to the advert would be similar to the National average (10% Type I and 90% Type II). The actual response was 58% from Type I and 42% from Type II (significant at $p > 0.001$, using the Chi Squared Test). This fact has lead me to ask the following question: is it easier to change the health behaviours using social marketing by targeting individuals with an imminent health problem? It seems that those who face imminent danger are more likely to comply. Armed with this fact, I would urge social marketers should consider the work of Roger (1975) because I would argue that they should develop campaigns using the Protection Motivation Theory, where fear is the driving motivator for these types of people.

All the respondents (Type I and II) who were interviewed were driven to the study because of the concerns of their health. My first proposition is that those individuals living with Type I diabetes are more likely to take part in research programmes than those living with Type II because they are more concerned about their health. Whether this translates into Type I being more likely to adopt positive health behaviours than Type II is open to debate, further studies

will need to be carried out before any final conclusions are made. It does demonstrate that targeting individuals to adhere to behaviour changes relating to outcomes that are less imminent is much harder. More importantly it demonstrates that there are different behaviour traits for individuals who are genetically different.

Taking this a stage further and as mentioned earlier, one area where the genetics debate can easily be included is that related to disabilities. The issue of inclusion and fairness when it comes to disabilities has been widely debated (Hepple, 2010; Lockwood, Henderson & Thornicroft, 2010 and Wadham et al., 2010). There are now very strict laws tackling discrimination against individuals living with disabilities (Equality Act, 2010). The subject is however missing from the social marketing arena. This study found very little evidence to support individuals living with diabetes who were either blind, deaf or had learning difficulties. The PCTs cite budget limitations as their main reason for not developing programmes to support these individuals. Does this mean that social marketing programmes are only being designed to suit the masses and those people who really need them are being excluded? In this case, the study identified that in relation to diabetes structured education that was delivered in England there is clearly an issue on how inclusive such programmes were. We will return to the possible solutions of this matter a little later in this chapter (see 7.5.1).

The engagement of individuals to participate in positive health traits is not limited to the domain of genetics. My study also identified a number of sub-segments that determined whether or not an individual would engage in the diabetes structured education programmes:

7.3.1 Dependent relatives.

Individuals who had the responsibility of looking after dependent relatives (mainly pre-school children or disabled individuals) found it difficult to make time to attend the structured education courses. They would require some form of respite support before they are able to find time to participate on a course.

7.3.2 People at work.

There were certain individuals who were not able to take time off work to attend the structured education courses when they were set during normal working hours. My study identified that more 'blue collar' workers were more reluctant to take time off work than 'white collar' workers. This problem was alleviated by those PCTs that provided a range of options during the day, evenings and weekends.

7.3.3 Ethnic minorities.

There is a perception from some quarters of the ethnic minority communities that the structured education courses will not suit their needs. Only a small number of PCTs offered language specific variant options. Even fewer had women only courses, which was identified as being important for certain elements of the community.

7.3.4 Awareness and availability.

Surprisingly many individuals were not aware of the courses and in some cases those that were, had access denied for a variety of reasons. Budget limitations restricted the ability of PCTs to run promotional activities to target individuals that were required to attend such courses. They relied on HCPs to sign post these individuals onto the course.

Apart from paragraph 7.3.4, these are, as Dickson (1982, p60) described, "*particular people in particular usage situations*". It demonstrates that the 'People' element of Bronfenbrenner's (1994) PPCT model has a significant impact on the SEF if implemented correctly. This study has clearly shown that there are many reasons why an individual will or will not engage in the diabetes structured education programmes. The examples used all fit into the various systems of the ecological context (i.e., Micro, Meso, Exo and Macro). It means that a similar format can be utilised in assessing people in the SEF. One could either incorporate it in the existing model or use an iterative step to first consider the people element and then the context element: details will be reviewed later in this chapter.

7.4 The Process (Proximal Process).

The process (or 'proximal process' to use its formal term) is "*an enduring form of interactions in the immediate environment*" (Bronfenbrenner, 1994, p38). I will argue that in social marketing terms, these enduring forms of interactions are in fact elements of the marketing mix used to facilitate the behaviour change: by this I mean it was the diabetes structured education courses and the processes adopted by social marketers to engage their targeted audiences. These courses provide the individuals with the guidance, tools and regimens needed to live healthy and complication free lives.

My study identified that for Type I diabetes there were 18 different courses available to patients and for Type II diabetes there were 12 different versions. The timings of the courses ranged from 1 day to 8 weeks. There is a large body of work that demonstrates the clinical effectiveness of diabetes structured education (see evidence list, Chapter 4, Section 4.5). My research is not looking to confirm these findings; its objective is to demonstrate how NHS England's effectiveness in engaging individuals to attend such courses can be increased if they use an enhanced version of the SEF.

A key finding identified was, the majority of the PCTs only provided a single option to those individuals living diabetes, i.e., it was at given time, for a given period and the courses were mostly provided in English. This meant that only a certain section of society were able to participate. The exact details were unclear because many PCTs were not even able to say if they had provided a course. More research is needed and I would propose targeting diabetics to establish the statistical significance.

It was clear from the discussions with the participants (patients and NHS staff) that the programmes required multiple behaviour changes, some of which were seen as complex (see Chapter 4 for the list of behaviour change requirements). As it stands there is little or no literature in the field of social marketing that deals with multiple behaviour changes. This factor brings to the fore the debate that continues in the social marketing fraternity about the definition of the social marketing product (Peattie and Peattie, 2003). Should the product be the 'behavioural change required' or is it a service or an actual physical entity like a mosquito net or condom (ibid).

Clearly in diabetes terms it cannot be a single behaviour, the importance of structure education as a social marketing process cannot be questioned. This is because there is an element of complexity involved: i.e., using the various insulin pumps, monitoring blood sugar levels, calculating the nutritional intake etc. These forms of behavioural change do require some form of education, as such it could be argued that structured education is the social marketing 'product' that individuals living with diabetes will choose to help them facilitate the desired behaviour change. Attending a course will by no means ensure that individuals adopt the desired behaviour change: further research will be required to establish the likely proportion of individuals who would have, although as mentioned earlier there is evidence to demonstrate that these courses do work. With this in mind and to link it back to social marketing, my approach uses the same principles that Ajzen's (1991), who demonstrated that 'intention' is a good measure of actual behaviour adoption, as such I will argue that: attending and completing the course is a form of intention, and demonstrates commitment from the individual to change. Without attending the course individuals are unlikely to be aware of the total change required and how to achieve it. The only other alternative is to complete a study over many years measuring specific clinical outcomes, which will demonstrate adherence to a specific behaviour regime.

To reinforce my argument that structured education should be considered as a product in the social marketing context and to demonstrate how it could measure and analyse it within the SEF, I will need to refer back to Andreasen's (1994) social marketing benchmark criteria, focusing specifically on the marketing mix:

7.4.1 Product.

In the context of social marketers using structured education as the primary mechanism for getting patients to change their health behaviours they should first establish that the product works. In this there is a list of evidence demonstrating the efficacy of the national programmes (see chapter 4).

The marketers should then match the profile of the product to their target audience. An important aspect of this process is the need to

provide variants that cater for the different market needs. This aspect of analysis is missing from the SEF, its inclusion would make the tool more comprehensive.

As we have already seen, my study found that many PCTs only provide a single option. This may be a reason why many patients fail to engage with the process.

The social marketer must also list all the other related products and complete the same process as highlighted above.

7.4.2 Price.

Social marketers should also consider the price of the product. In social marketing terms it is considered as a conflicting behaviour. This study identified that the core behavioural conflict to attending a structured education course was the 'making of time'. Many of those who opted not to attend a course did so because there was a time conflict with another activity.

Adding this aspect to the SEF would provide social marketers with a clear picture of the perceived costs of the programme making it easier to design and deliver the most effective and enticing promotional programmes that will engage with the targeted individuals.

In the case of my study, the social marketers should have identified (by completing the benchmark review) that providing courses that were only available at specific times would exclude a section of their targeted market.

7.4.3 Promotion.

The promoting of the structured educational courses and its associated benefits to the patients will be the primary mechanism for increasing awareness amongst patients and healthcare professional.

My results demonstrate that there is an awareness issue amongst the study's cohort, yet the response by all the NHS staff interviewed in relation to this problem was '*budget limitations make it difficult to*

engage with the individuals that they are looking to target'. The issue of budgets will be considered in more depth during the discussions about the 'Exo Factors' (see section 7.5.3).

Including this element of the marketing mix within the SEF could identify the best promotional channels needed to maximise reach. In this study all of the patient participants stated that they implicitly trusted their Diabetes Specialist Nurse (DSN) and often looked to him /her for advice and guidance. If a social marketer knew this, then a campaign or process could be designed to utilise the DSN as the main engagement process.

GPs are also the 'gate keepers' or 'sign posters' of the process. This meant that those third party organisations that provided the education services found it difficult to recruit patients as they were denied access to the databases containing individuals with diabetes (these databases were kept at by the GPs). They had to rely on practice managers to supply them with the information: they were often reluctant due to their heavy workloads.

7.4.4 Place.

In this instance the place element of the mix related to where the course was held. In all cases it was relatively local to the individual, which was an important factor when considering whether or not an individual would attend. Some of the patient participants did criticise the process saying that there was no follow up or electronic support (web portals)³².

None of the providers have websites to support their courses, it could be argued that in this digital age such an omission is a major failing. Discussions about this issue with the NHS participants yield a similar theme; budget restrictions made it impossible for them to develop such platforms.

It is clear from these findings that the proximal process should be considered as the critical factor in the whole SEF process: it is the

³² Diabetes UK now has an electronic portal that patients can sign up to.

underlying mechanism that will be used to influence behaviour change. As such it should be included as a key process in the SEF.

7.5 Context.

The context element of the PPCT model relates to the ecological environmental systems associated with the required health behaviour change (i.e., the microsystem, the mesosystem the exosystem and the macrosystem). It is the basis on which Bronfenbrenner (1977) built his original model and is the foundation on which the SEF was built. Let's now look at each element individually and identify what impact they have on influencing individuals living with diabetes to change their health behaviours.

7.5.1 The Microsystem.

The Microsystem is "*a pattern of activities, roles and interpersonal relations experienced by the developing person in a given face-to-face setting with particular physical and material features and containing other persons with distinctive characteristics of temperament personality and systems of belief*" (Bronfenbrenner, 2005, p148) In the context of my study, it is the developing person that is being influenced by the behaviour change. The reality of life is such that each person is likely to have an inordinate number of Microsystems, so for parsimonious reasons I have chosen to focus on an individual's immediate family, their work and the interactions with their HCPs (this includes attending the diabetes structured education courses).

The first point I would like to make is that with the changes in the digital arena the definition should be extended from just a 'face-to-face' interaction to 'all interactions'. This is an important aspect for social marketing because they will want to use the best medium for interacting with their audiences. Some of the patient participants had commented that their PCTs did not have any electronic portals or forums where the interactions could continue. They all added that their DSNs were the most important HCPs in the process. Patients tended to trust their DSNs more than any other HCP when it came to answering questions about their diabetes: more so than the Consultant or their GP.

From a social marketing point of view this has important connotations: if we consider the Two Step Flow Theory from Katz (1957), it can be seen that it is the opinion leader that is key in getting specific messages across. In the health arena this would be a HCP, but not just any HCP, the one that is most relevant to a specific condition. This means that social marketers should use these HCPs in their campaign design. Targeting the individuals should also become more efficient as they will know exactly who the targeted patients are and where they live. Using such HCPs will overcome the privacy and data protection issues that restrict the sharing health information with other organisations.

Another microsystem is the family. The study attempted to discover how the family environment could help or hinder an individual adapt their health behaviours. The most influential aspect that this study identified was the sharing of the information (i.e., the sharing of the required behaviour changes) with key members of the family. All the Type I participants, who were diagnosed as a child, stated that their parents were the key influencers on them. Those with Type II who had a close relative living with diabetes stated that these close relatives were instrumental in providing them with advice. This means that family members or partners should also be allowed to attend the courses: it should be noted that it is actually stipulated within the NICE guidelines that this should be the case (NICE, 2004 & 2008). Most of the patient participants interviewed, who attended a structured education course, stated that they did so alone because they were never given the opportunity of bringing a family member with them. When this issue was raised with the NHS participants, most said that budgets were the limiting factor and priority had to be given to patients.

Bearing in mind that an adaption to diet is one of the key behavioural change requirements in diabetes, family support becomes critical, particularly at meal times. The most prominent aspect of family support can be illustrated with those Type I participants who were diagnosed as a child. Here they said that it was their parents who took the more active role in educating them in how they should behaviour in relation to their diabetes.

The final element of the Microsystem to consider is the workplace. It was noted that none of the patient participants stated that their work environment helped or hindered them in being able to adopt the ultimate behaviour changes. The hindering element is important because diabetes is classed as a disability (Diabetes UK, 2013) and there are strict laws in England that stop employers from discriminating or victimising individuals who live with a disability. The study did establish some key facts relating to work and structure education, which will be discussed in the next section (Mesosystem).

It is clear from the findings that despite many specific health issues only affecting a minority of individuals, the campaigns that social marketers develop must target the wider community. Family members are particularly important, as they are likely to play a big part in supporting the behaviour change. The study has also identified that specific HCPs for a given condition are likely to be highly influential in shaping the behaviour change of the targeted individual. Social marketers should develop programmes that utilise these individuals.

7.5.2 The Mesosystem.

The Mesosystem is the relationship between two or more Microsystems that will ultimately affect the development of an individual (Bronfenbrenner, 1977). The previous section focused on the family, work and HCP Microsystems. In this section I will examine how the family and work micro systems linked with the HCP Microsystem (more specifically the actual structured education course) to create two distinct Mesosystems.

7.5.2.1 Family / Course Mesosystem.

As stated in the person section of this thesis, the study identified that those individuals who were the main carers for preschool children or dependent relatives with a medical condition struggled to engage with the structured education courses particularly when there was little flexibility around the course timings. A selection of participants who were interviewed, stated that although they would like to have attended the course, the priority had been given to the individuals they were caring

for. There were others with the same predicament that could rely on additional family support in order to attend the course. One can conclude that there will always be a small section of society that will be unable to make the time to interact face-to-face in such courses. What then should the social marketers do? There are many options that could be adopted:

- Develop video / audio materials that could either be sent to the individual or housed on a web platform.
- Have an e-learning platform with a forum to allow individuals to engage with others in the same position.
- Provide respite support for the individual to attend or have the course linked to a nursery where the children can be left.

These options were discussed with the NHS participants but they all said that budget limitations had restricted them from providing such a service.

7.5.2.2 Work / Course Mesosystem.

The findings for this element were interesting, my study identified the following: depending on the length of the course and its particular timings (i.e., what day and time it was held), certain individuals declined to attend despite knowing it would benefit them. The primary reason for declining was the course timings interfered with their work: they were unwilling to ask for time off to attend. These individuals tended to be the 'Blue Collar' workers: 83.3% of the 'Blue Collar' as oppose to the 12.5% of the 'White Collar' workers. The samples sizes used to identify this fact were small (6 'Blue Collar' workers and 8 'White Collar' workers). This means that the figures cannot be tested statistically, however as this was a qualitative study it could be argued that further research should be carried out to test the hypothesis as it could play an important part in designing new social marketing campaigns.

Discussions about course timing issues with the NHS participants identified that some PCTs provided a range of timings and dates for their patients to select. There were others who state that budget restrictions stop them from being so flexible. Again due to the low numbers of NHS participant interviewed this could not be tested statistically: had this issue been known at the beginning the question would have been included in

the census to the PCT. The research proposes that further work should be done in this area.

Taking these findings into consideration, how could they be related back to the SEF? To answer this question, the study must refer to a principle set by Bronfenbrenner (2005): when designing a study to investigate, researchers must be sure that their targeted audience have a belief that the behaviour change requirement is important to them, they must also have an expectation that the proximal process they are being asked to interact with will help them achieve the desired behaviour change. Without this knowledge a researcher will not be able to state that the negative influences identified in the mesosystem and /or the exosystem are related to a procedural aspect of the proximal process. If it is not, then the failure to comply could be down to the fact that the individual had no intention of adopting the behaviour change. Dealing with individuals who have no intention to change will require a totally different approach. This goes beyond the scope of the study: it should be considered as an opportunity for further research.

As it stands the current SEF process does not make any distinctions between individuals who would like to comply but can't and those who have no intention of complying. This study identified that 98.7% of the participants of the survey stated that they needed to adjust their health behaviours to ensure their future health and wellbeing (which was significant at $p > 0.001$). It also established that 96.8% of the participants thought that structured education courses would help facilitate the changes to their health behaviours (also significant at $p > 0.001$). Including this type of analyses within the SEF will help social marketers establish that their campaigns are right and that the efforts they put in to correct any issues along the wider ecological environment will not be wasted.

7.5.3 The Exo System.

The Exo System relates to those factors within the social marketing setting that the individuals (in this case patients) have no direct influence (Bronfenbrenner, 2005). For this particular study these indirect influences relate to the policies of NHS England and its constituent PCTs.

I have already identified that current protocols stipulate that structured education should be offered to every person and their carer(s) at or around the time of diagnosis, with annual reinforcement and review (NICE, 2004 and NICE 2008). The guidelines also state that people and their carers should be informed that structured education is an integral part of diabetes care (ibid).

Despite having this edict, the study identified that during the period of April 2011 to March 2012 only 43.4% of the PCTs had a clear programme in place to deliver structured education to those individuals living with Type I diabetes (66 PCTs). It also established that only 57.2% of the PCTs had a clear programme in place to deliver structured education to those individuals living with Type II diabetes (87 PCTs) during the same period. These results are backed up by the findings of Diabetes UK (2012), they found that only 36% of their members have attended a course to help manage their diabetes. Even more concerning are the statistic from the Health and Social Care Information Centre (HSCIC, 2015): they discovered that only 13.5% of patients diagnosed with diabetes attended a structured education course in 2010-2011 (2.7% Type I and 13.5% Type II). See Figure 7.1:

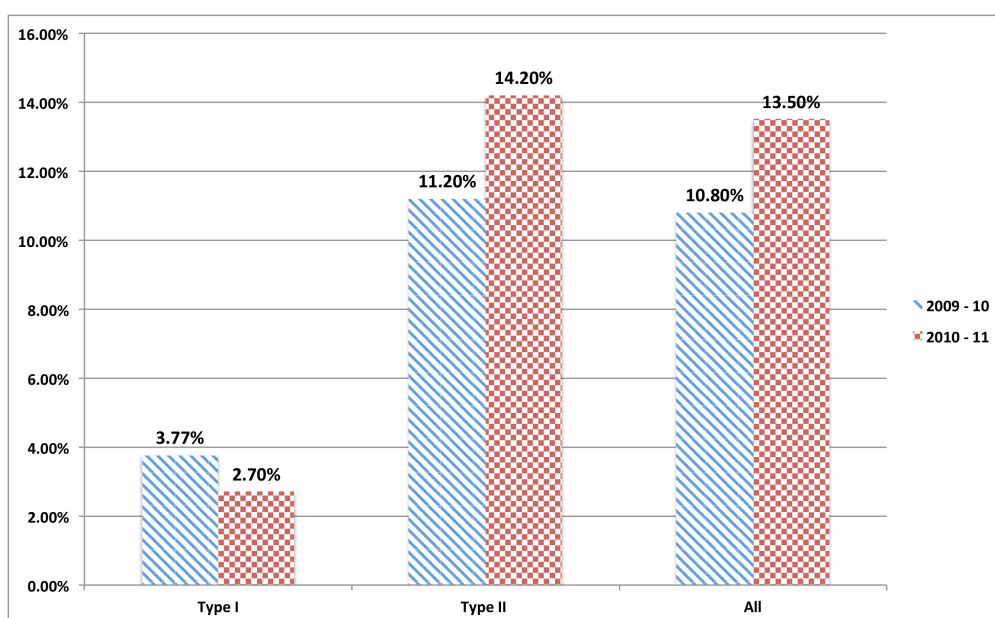


Figure 7.1: Diabetes structured Education Course Statistic (Adapted from HSCIC, 2015)

It should be noted that the report from Diabetes UK covers the whole country and the HSCIC report is for England and Wales. Even though the

related reports are on a wider scale, it could be argued that there are clear synergies in all findings: i.e., the process of engaging individuals is clearly not working and the question that should be considered is 'why?' Based on the results of my study and that from Diabetes UK and HSCIC, I can conclude that only half of the population in England were given access to a service designed to influence positive health behaviour changes. It gives rise to the term 'postcode lottery', which has been popularised by today's press (Dawson, 2011; Day, 2013 and Forster, 2014) and demonstrates that there are clearly factors, which are outside of an individual's control that social marketers need to consider. These "Exo" factors [as classed by Bronfenbrenner (1977)] are an interesting aspect of social marketing, it requires a different approach which the study will now consider.

Within the SEF model the scenarios painted by Colins, Tapp and Pressley (2010) suggest that when there is a negative influence on the Exosystem then social marketers should consider mitigating or changing it by utilising the positive elements of the other systems. I have a concern with such an approach: it is the nature of Exosystems to be out of direct influence of the individual (see definition in Bronfenbrenner, 1977). A more appropriate tactic would be to integrate and utilise the concepts of 'upstream social marketing' and /or 'macro social marketing'. Upstream social marketing was first introduced by Wallack et al. (1993); they believed that social marketers should focus on removing the upstream environmental factors to succeed in the quest of influencing positive behaviour change. The concept of macro social marketing was first introduced by Kotler and Zaltman (1975) with their three levels of social marketing, it has been extended further by many scholars including Hastings & Haywood (1994), Lawther & Lowry (1995), Murray & Douglas 1988, Wymer (2011) and Kennedy & Parsons (2012).

It can be demonstrated that the process of structured education used to support individuals living with diabetes to change their health behaviours is already a macro social marketing programme: NICE (2004 and 2008) have recommended it as part of the diabetes care pathways. So, what should happen when social marketers identify that the process and procedures used by the organisation that commissioned the social

marketing are wrong? The use of upstream social marketing tactics should be employed: in this case the lobbying of the Department of Health, NICE and the Government to reconsider current policies. As it stands the wording of elements of the policy is open to interpretation, as an example, the care pathways only states structured education **should** be offered to every... (NICE, 2004 & 2008) changing 'should' to 'must' will have significant implications to the process. In addition, the QOF points (which has a financial impact) given to GPs should only happen once the patient has attended a course. This change would ensure that GPs spend more time promoting the benefits of the course.

There are other even more fundamental properties of social marketing that are being missed in this example. Interviews with those individuals living with diabetes have established that not everyone was aware that they should be offered a place on a course. There was also a poor understanding of what each course stood for. Those who were offered a place were critical of the fact that attendance times were restricted. There was also concern that language specific options were limited. These issues were discussed with the HCPs and NHS administrators: the primary factor identified that limited the PCTs in providing a more inclusive service was costs. It is worth emphasising that this study has identified that in its current format the operation of providing diabetes structured education is inefficient and ineffective. This is demonstrable by the following facts:

- Many of the PCTs had opted to develop their own programmes (or to coin a colloquial phrase, 're-inventing the wheel'). This requires the costly printing of additional materials and restricts smaller organisations from producing language specific options.
- The PCTs were not able to advertise or promote the programmes to a wider audience because of limited funds.
- The PCTs rely on their DSN and Dietitians to run the courses which limits the number they can do.

A possible solution to this dilemma is centralising the process. This would consolidate the brands (labels) of the courses and would overcome many of the identified problems. The concept of centralising care

pathways is not new within the NHS, there are a number of examples where it has been very effective (NHS, 2013). Centralising the process would mean that fewer brands (or labels) will be on offer, making it easier for all relevant parties to recall the offering. Promotion and advertising should also become more cost effective with national campaigns extending the reach.

Finally, this study needs to remind the reader of the issues identified in the mesosystem section, where any research design must first establish that the targeted individuals have a belief in the behaviour change and that the proximal process will facilitate the change. Some of you may ask why is this not important for the micro and macrosystems? Bronfenbrenner does not specifically answer the question but on reflection I believe it is because the meso and exosystems have direct links to the proximal process (the behaviour change mechanisms) but the micro and macrosystems do not necessarily have. This is best explained with an example: the microsystems for this study are the interactions with the family, the interactions at work and the interactions on the structured education course. Two of the three examples have no link to the proximal process. The mesosystems are then the 'family plus structured education' and the 'work plus structured education'. Both are directly linked to the proximal process, reviewing the 'family plus work' mesosystem would be meaningless for this specific research.

As stated, the exosystem has to relate to the proximal process (i.e., the structured education) all other relations would be meaningless (for the context of this research). Finally looking at the macrosystem, this research would argue that there should be a test to identify if a particular group or culture believes in the behaviour change requirements and the proximal process. The macrosystem is the "*overarching pattern of micro-, meso and exosystems*" (Bronfenbrenner, 2005, p149) as such it is my belief that it should also be included, i.e., Bronfenbrenner was wrong to limit the concerns about first establish that the targeted individuals have a belief in the behaviour change and that the proximal process to just the meso and exosystem: the macrosystem should be included too.

7.5.4 The Macrosystem.

The macrosystem describes the cultural background of an individual (Bronfenbrenner, 1977 and Collins Tapp & Pressley, 2010). It should not be restricted to an individual's ethnicity but include social status and religion (Bronfenbrenner, 1977). The recruitment of participants (using the study's purposive sampling process) had hoped to attract a range of individuals from a variety of backgrounds. They should have included:

Long-term unemployed: to gain a balanced view, I had wanted the opportunity of discussing the typical types of problems an individual (or their spouse / partner) who was classed as long-term unemployed (unemployed for over 12 months) would experience. Unfortunately, my study was not able to attract a single person. I am not sure if this was because the membership profile of Diabetes UK had also failed to attract this type of individual or if it was for some other reason.

In NHS' terms, individuals who are classed as long term unemployed with a chronic condition are often placed in the 'hard to reach category' (NHS, 2013). Their input would have been very valuable, social marketers need to identify if such individuals are, as Maslow (1943) had argued, focusing on their 'physiological needs', i.e., just looking to survive or if they aspired to satisfy their 'safety needs', i.e., looking at the security of their bodies and health. I believe (based on Bronfenbrenner's propositions) that the social marketing campaigns needed for these types of individuals have to be different although this statement cannot be corroborated at the moment. It is therefore proposed that a separate study should be instigated to focus specifically on this group.

Religion: this is another category within the macro system. We live in a diverse society where religion plays an important part. In diabetes (both Type I and Type II) the management of an individual's diet is a key behaviour trait that needs adhering to. Certain religions are required to fast, Muslims for instance will spend the whole of the Ramadan month not eating or drinking during daylight hours.

Unfortunately this study was only able to attract one individual who stated they were Muslim. This person had informed me that the Quran does not dictate that everyone should fast:

“The Quran says that those who are physically ill do not have to fast”.

(Quote by a Muslim Patient Participant)

He would eat what was needed during Ramadan and cut out other luxuries. When this was put towards the DSNs and Dietitians, not all of them were aware of the specifics, stating:

“We provide the same advice to all our patients on how to manage their diabetes”

(Quote by a DSN participant)

It was identified from the interviews with NHS participants that this statement was not unanimous across the NHS. There were some PCTs that had Muslim DSNs and/or Dietitians who could provide more specific advice, whilst others had a specific set of protocols that they could provide the staff with when they were dealing with Muslim patients.

Even though my study was only able to recruit one participant who was Muslim, it was clear from him and the interviews with NHS participants that this section of society had different needs. It was also clear that the social marketing practices for engaging with these types of individuals varied dramatically across PCTs.

Cultural: there are aspects of the definition of culture that are very similar to that of religion: *“the ideas, customs, and social behaviour of a particular people or society”* (Fowler & Fowler, 2011, p297). I had hoped to recruit a range of patient participants from the Black, Minorities and Ethnic (BME) communities in order to establish the major differences to their beliefs. Unfortunately, I only managed to attract five individuals (after extending the call to participate).

Ideally my study should have been able to call upon individuals who had difficulty in speaking or understanding English. In hindsight, considering

the adverts calling for participation was in English using the Diabetes UK members it was never likely that it would receive responses from this sector of society. But is this really important to the study? To answer this question I need to refer to England's recent Census data, which is available from the Office for National Statistics [ONS] (ONS, 2010). It identified that 1.3% of the population cannot speak English (this equates to 689,000 using a population of 53 million in England) (ibid). Couple this with the fact that the prevalence of diabetes is highest amongst adults from South East Asia (SAHF, n.d.) then there is a real need to consider it because with a prevalence of between 5 and 20% (Diabetes, 2012) there could be between 34,000 and 138,000 individuals living in England who are at risk of diabetes but cannot speak English. It is proposed that a separate study should be instigated to look specifically at this area; a possible partner could be the South Asian Health Foundation (SAHF).

Despite the study's failing to achieve its targeted amount of BME participants, the five who were interviewed provided some very interesting views. They had felt that the dietitians tended to focus on Anglicised meals which were not suitable for them. The Muslim participant also made the comment that it would be better if there were "*single sex*" courses that were made available: he stated that there are elements of his community who would prefer to attend such a course. When these issues were raised with the NHS participants, the study received a mixed response: some were willing to consider putting on single sex courses if the numbers could be achieved. One DSN stated:

"That would be sexual discrimination!"

(Quote by DSN participant)

This is not the case, the Equality Act 2010 states a single sex service would be permitted when it can be demonstrated as the most effective way of providing a required service (Equality Act, 2010). It does question some of the training that the NHS staff have received in relation to this subject.

On the issue of multicultural recipes some of the courses have started building a new portfolio, which deals with specific requirements of a

given community. There is still however an issue with budgets and resources, it is the limiting factor for all PCTs being able to roll out the solution quicker.

Based on these findings there are a number of gaps in the NHS' process for dealing with the BME community. From a social marketing and SEF perspective they tend to relate back to the Proximal Process, or to be more specific the service design for the structured education courses. In many cases the current products being delivered only cater for a certain section of the community. It appears that the design targets the 'white middle classes'. I will argue that this is the easy option and more work should be done targeting the 'hardest to reach individuals'. The most striking fact is many PCTs only provide a 'one product option' and expect the said product to suit the whole market's needs. This goes against Andreasen's (2002) and the French and Blair-Stevens (2006) advice on the benchmarking social marketing activities: do not have one-size fits all option.

Interestingly the SEF's scenarios (see Appendix 10) state that the option of having just a negative macro system is unlikely, "*as it seems implausible that the macro system would exert a negative influence if all other levels were positive*" (Collins, Tapp and Pressley, 2010, p1197). I disagree that such an option seems implausible because of the following, consider this example:

A programme has been designed to deliver diabetes structured education to the Muslim community. The social marketers have worked with the leaders of the local community to promote the course; the relevant individuals were keen to participate. All the materials were produced in a number of language variants. The course timings were set flexible to avoid clashes with work or other care commitments. The only problem is, the course has not been designed to segregate the sexes: causing an issue for a certain section of the community.

This is clearly an example of only the Macrosystem having a negative influence. Accepting this change will undoubtedly enhance the SEF

process. Further details of the changes to the SEF will be discussed later in this chapter.

7.6 Time.

According to Bronfenbrenner (2005), time is an important factor when it is related to an individual's development. He goes on to say that time converts the developmental learning into behaviour. Yet time is missing from many of the research articles focusing on social marketing. It is also a missing element of the SEF. This section will now focus on the importance of time and demonstrate how it can be incorporated into the SEF model. To start the research must first consider the guidance given by Bronfenbrenner (2005) in developing research programmes that relate to time.

Bronfenbrenner (2005) suggests that scholars should adopt either a short-term longitudinal study, a long-term longitudinal study or a cross-sectional design study when examining the impact of time on the ecological system. For my particular research the short and long-term longitudinal reviews were not practical, as it would mean restricting the study to a smaller number of PCTs and focusing only on those who had actually attended a structured education course. In addition, a long-term review would compromise the limited time lines given to a doctoral student. For this reason I selected to complete a cross-sectional design: comparing the thoughts of the different participants who had attended the different courses across the PCTs in England.

In Bronfenbrenner's (2005, p6) second proposition, he stated, "*over the life course, human development takes place through processes of progressively more complex reciprocal interaction between an active, evolving bio-psychological human organism and the persons, objects and symbols in its immediate external environment. To be effective, the interaction must occur on a fairly regular basis over extended periods of time.*"

Coupling this fact with the findings that the health behavioural changes required for individuals living with diabetes are relatively complex. I would have expected the responses about the effectiveness of the one-day courses to be less favourable than those who had attended the 6 or 8-week courses. The actual results were inconclusive with all the participants saying that they enjoyed their course and had learnt a lot. In hindsight the self-reporting of the

effectiveness of a course may not have been ideal as many of the participants would not have known the real impact of the course or have been able to compare it with another.

The only way to truly assess the effectiveness of these courses is by comparing the actual behaviour changes that have occurred between the participants of two different courses over a period of time. This would either be a short or long-term longitudinal study. It is something that should be marked for future research.

Arguably the impact of time remains an important factor: Zimbardo & Boyd (1999) and Rabinovich, Morton & Postmes (2010) have all demonstrated that time perspectives will have an influence on future oriented behaviours. With this in mind it can still be argued that time should be included within the SEF model.

Time follows many guises (Bronfenbrenner, 2005, pxvii), there is the microtime, which refers to "*the continuity and discontinuity of the on-going episodes of proximal process*", this can be considered as the timings of the course and as the study has seen from its findings, it plays an important part in engaging the individual. There is mesotime, which looks at "*the periodicity of the episodes across broader time intervals*" (ibid): i.e., is the course just for one day or half a day over several weeks. Finally there is the macrotime, which is the "*changing expectations and events in the larger society, both within and across generations*" (ibid): to illustrate this it could be argued that the younger generation are more open to challenging their GPs whereas the older generation will have a greater respect for GPs and do as they are told (note: there is no evidence to corroborate this statement, it was merely included to illustrate the impact of macrotime).

Within the proposed changes to the SEF, it should start by asking how each element of time (micro, meso and macro) affects the ultimate social marketing behaviour change. It should then carry out the relevant research to identify the details; the exact mechanisms will be reviewed later in this chapter.

7.7 The Customer Value Chain.

This chapter has so far discussed some of the major findings related to each element of the PPCT model. Before moving into the solution development phase the study must first consider a number of key factors that could facilitate the process. In the development of the original SEF, Collins, Tapp and Pressley (2010, p1193) state that “*given the wide scope of the framework [the SEF], the most effective way forward may be for social marketers to create a kind of ‘value chain’ of delivery in partnership with other specialisms*”. I have taken on board this guidance and have chosen to use Donaldson, Ishii and Sheppard’s (2006) Customer Value Chain Analysis [CVCA] as a basis to enhance the SEF. This approach looked at the key stakeholders within the process: a key stakeholder can be defined as a category of person that is directly linked to the process, in this case the management of diabetes. The study identified 13 different groups (see Figure 7.2 and Table 7.2):

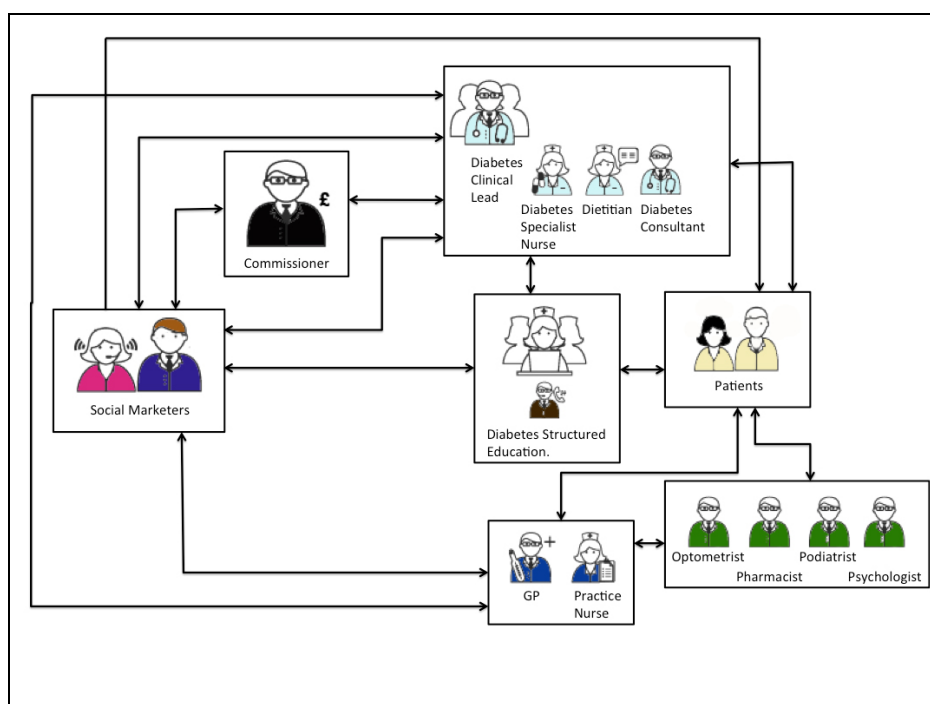


Figure 7.2: Stakeholder impact on diabetes structured education.

Table 7.2: Stakeholder Influence.

The Influence levels of each stakeholder, focusing on their ability to encourage patients to attend structured education programmes and to commission the course.

Stakeholder	Influence on Patient.	Influence on commissioning.
Commissioners	Nil	High

Lead Diabetes Consultant	Low / Medium	High
Consultant physician / Diabetologist	Low / Medium	Low / Medium
GP	Low / Medium	Low
Diabetes specialist nurse (DSN)	High	Medium / High
Practice nurse	Low / Medium	Low
Dietitian	High	Medium / High
Optometrist / ophthalmologist	Low	Low
Podiatrist / chiropodist	Low	Low
Psychologist	Low	Low
Pharmacist.	Low	Low
Administrators.	Low	Low

Ideally I should have extended this profile as Collins, Tapp and Pressley (2010) had advocated to a wider reach. Unfortunately limitations with time and money meant that this could not be achieved. Future research (looking specifically at the management of diabetes) should consider looking at:

Parents, carers and immediate family: this would be highly relevant when considering either children living with diabetes or individuals who have even more complex health or social needs. I have already established that the family play an important part in the behaviour change process, so interviewing these individuals could identify more opportunities for enhancing the social marketing practice.

The Department of Health and Government Ministers: my research has already identified that the standard of care provided by each PCT varies significantly. The changes to policy that are needed to address this shortfall can only be addressed by the Government and the civil servants managing the process.

Diabetes UK: they are the leading charity that cares for, connects with and campaigns on behalf of every person affected by or at risk of diabetes (Diabetes UK, 2013). Their focus is to support individuals living with diabetes, influence research and policy. They could support any future social marketing campaign.

Despite these limitations the CVCA identified a number of key facts that are likely to influence how social marketers develop campaigns. The first relates to money: it was clear from the interviews with the HCPs, administrators and commissioners within the NHS that the overriding theme related to the delivery

of diabetes structured education courses was budgets. There are in fact large ranges of health related social marketing issues that need tackling within the NHS. These are located across the many different departments within each PCT. It was the departmental heads (usually the Clinical Lead) that developed the annual budgets (with the support of their staff), they then had to justify (or fight for it) with the Executive Team which included the Commissioner (or Head of Commissioning; diabetes usually fell under the domain of the “Long Term Chronic Conditions” Commissioner who reported to the Head of Commissioning).

It should be noted that the PCTs did not have ‘social marketers’ allocated to each department, this type of activity was carried out by the clinicians or administrators; they still had to work with the departmental heads to lobby the Executive Team to accept their proposal. The National providers (DAFNE, DESMOND and XPERT) did have marketers (it should be noted that these individuals were given job descriptions with the title of ‘marketers’ and not ‘social marketers’), and their self-reporting indicated that they spent more time engaging Commissioners than they did with the actual patients. They targeted the patients once the work was commissioned for a particular area.

These facts demonstrate that the role of social marketing is not just about changing an individual’s behaviour; it’s about gaining acceptance for the social marketing programme to be run and financed as project. One might consider that acceptance will have been the norm amongst the key decision makers, but the study also identified two interesting points to contradict this. This first being, many of the HCPs interviewed were sceptical about this ‘patient empowering process’. They felt that they knew best and it should be left to them to direct the patients, these HCPs (the GPs that were interviewed) were also confused about the many offerings that were available, which leads to the second point. Social marketing sees competition as those elements that conflict with the behaviour change (Andreasen 1994). The reality is social marketers have to first overcome traditional competitive environments if they are to succeed: they must demonstrate that their behaviour change programme is more worthy than the others that are out there. This ‘management of competition’ process should focus internally and externally (i.e., the social marketers have to compete against other providers providing services for a given condition, in this case it was DESMOND or XPERT or DOTTIE etc. They

also have to compete for funding against externally against other conditions i.e., will the funding go to diabetes or obesity or sexual health etc).

Another interesting fact identified through the CVCA process was the importance of specific stakeholders. In this case the study identified two categories: those (i.e., the commissioners and the clinical leads) who had the greatest influence over the decision for running the campaign and those (i.e., the diabetic specialist nurses and dietitians) who had the greatest influence in getting the individual to change their behaviour. This is key for social marketers because they can then become more effective and efficient in targeting their efforts to achieve the desired goal. More importantly they can balance the marketing mix to maximise their impact (or more specifically focus on managing the people element of the extended marketing mix). The study has shown that it is the DSNs who have the most influence and contact with the patients. Social marketers should use them as a facilitating channel for attending the structured education course and changing behaviour. This means providing them with the appropriate training and materials, as you would do with a sales person in a traditional environment.

Many of the DSNs had felt that they were being asked to do too much. This is something that social marketers need to consider when developing their campaigns. It means that even though the CVCA can identify the gaps in the process care must be taken in the allocation of resources. There were a number of 'more progressive' PCTs who had done this and were utilising volunteers to deliver the structured education programmes. These volunteers were individuals who were also living with diabetes and were happy to help. It overcame the financial constraints that many other PCTs were facing and allowed their DSNs to focus on their core tasks. It meant more people could be reached. The study also established that individuals living with diabetes were not concerned who delivered the courses as long as the quality was at the right level.

These findings demonstrate the importance of considering the wider customer value chain: it gives social marketers the ability to identify all the stakeholders in the process and their impact on it. It provides social marketers with the opportunity to optimise their campaigns. Later in this chapter the study will discuss in detail how it could be incorporated into the SEF.

7.8 Product Definition Assessment.

Not all social marketers are of the view that the product should be the behaviour: a debate about this dilemma created two camps, those that “*saw the desired behaviour as the end ‘product’ of the campaign, while others concentrated on the tools of the campaign, such as information or tangible supporting technologies*” (Peattie and Peattie, 2003, p371). Based on the results of my study, I have positioned myself in the latter group. The complexity and range of behaviour change requirements for individuals living with diabetes means that some form of mechanism is needed to disseminate the required information: education platforms seems to be the most appropriate. This goes against the work of Lefebvre and Flora (1988) who argued against using purely educational approaches to influence behaviour change. The reality is they were probably right, but only in the context of how health educational programmes were being delivered: i.e., if you consider what is currently happening with diabetes education in England it is clearly failing. The question that should be asked is, ‘are the failings identified in diabetes education due to the fact that it was an educational process or a failure in designing the education to suit the customer’s needs?’ I believe it is the latter and the introduction of some form of PDA to the social marketing process would undoubtedly enhance the process. The following section will now focus on the proposed structure of the PDA and how it could be used in the context of accessing structured education for people living with diabetes:

7.8.1 The required behaviour change.

All social marketers should be absolutely clear what behaviour changes they are looking to instil: by having it documented they can also ensure the whole organisation they are working with understands the change(s) required. It becomes even more important when the process has a complex set of differing behaviour changes. For this study the behavioural requirements are in two stages: the first was the behaviour change needed for individuals to attend the course and the second was the health behaviour changes needed. At some point the organisation and /or the sponsor will want to establish the success of the campaign: this type of documentation will greatly help the process.

7.8.2 Objective of the product.

Establishing the objective of a product is a vital marketing process: it is a means of differentiating it from the competition and attracting the targeted audience (Blythe, 2003). If the product was the ultimate behaviour change then the only opportunity of differentiating it is by comparing it against its competitive behaviour: i.e., do you chose to exercise or to sit down and watch TV. Even though this is important, it could be argued that it is like asking a commercial marketer to sell 'saving schemes' by comparing it against going on holiday. In reality these commercial marketers would have been promoting the different types of savings schemes which targets specific customers (i.e., fixed rates, instant access, children's accounts, ISA, etc) and not a competing product that the individuals could spend their money on. In social marketing when the product is not limited to the behaviour change the marketer is able to develop different products for different groups to facilitate the required behaviour change. As an example this could be a course that runs at the weekend for those who are busy working during the week or a women only course for those from a particular community. If the product was just the behaviour it becomes very difficult to differentiate it.

7.8.3 The product positioning.

My findings established that the barriers to attending a structured education course included, but were not limited to, being able to participate at the given times, understanding the language it was being delivered in and the relevance of the meal advice for different cultures. Developing options to counter these barriers is a way of positioning the product to attract those individuals who have difficulty in attending a specific format. This method of positioning should make the courses more accessible and inclusive to the general public.

7.8.4 Product theory.

The study identified that the national providers (DESMOND, DAFNE and Xpert) of diabetes structured education utilised Social Cognitive Theory as

the primary principle for change. There was very little information relating to the local courses which does raise the question, are they adhering to the principles set down by NICE in the creation of these courses? This can be seen as another way of differentiating the product but only in the eyes of the commissioners and HCPs. My discussions with these individuals identified that they were keen to understand the principles that had been applied to the programmes. The patient participants on the other hand were unaware and indifferent about the theory used.

7.8.5 The required strategic alignment.

The required strategic alignment in this study related to the NICE care pathway for diabetes. *“There are four key criteria headings, which state that education programmes should (DoH & DUK, 2005, p12):*

- *Have a structured, written curriculum.*
- *Have trained educators.*
- *Be quality assured.*
- *Be audited.”*

National programmes like DESMOND, DAFNE and XPERT were able to demonstrate adherence to these requirements. Not all of the other providers were able to exhibit that they had observed the guidelines.

7.8.6 The targeted customers.

Based on the guidelines provided by NICE, each PCT should have targeted all patients and carers who had not already attended a diabetes structured education course. My study identified that most only provided courses to recently diagnosed patients and not the carers, some had language specific variants for different communities but there was no evidence of any other specific targeting strategy. Breaking down the market into manageable segments should help social marketers identify how each campaign can be designed to satisfy the targeted market's needs.

7.8.7 Identifying customer's needs.

This is a classic market research process that every marketer should complete before embarking on developing a programme. Interviews with patients had established that time was the primary competitor for this particular behaviour requirement: there was an element of the sample that required some flexibility in the course timing, i.e., it needed to be in the evenings or weekend. Others wanted the course to be as short as possible. The study established that some individuals from the BME community would prefer the dietary options to be more specific for their culture. Not all the PCTs were able to provide a full range of these options.

7.8.8 Addressing the competition.

This aspect should be linked to the 'objective of the product' (see section 7.72). It must clearly address the competition but when the NHS staff were asked to comment on what they thought the underlying competitor was for an individual adopting the required behaviour change, they were all confused by the question. None of them had considered this concept. It demonstrates that there is still work that needs to be done with the staff in relation to developing social marketing programmes. As mentioned, the reality of competition within the market place was the existence of the different courses. There was no awareness that 'time to do other things' was the main barrier to people embarking on the diabetes structured education.

7.8.9 The exchange requirement.

Bearing in mind that the NHS staff that were interviewed were not able to identify the behaviour competition, it should come as no surprise that the same staff were unable to identify the exchange requirements. In this case the exchange was time: individuals had to make room in their day to learn about the things that were important in managing their diabetes.

7.8.10 The Priority Design Criteria.

This criterion relates to those aspects, which are a 'must' in its design. I have established that structured health education must be evidence based but only the main national courses were all designed and developed by clinicians using randomised controlled trials. These providers were continuing to enhance their offerings by developing other variants. This required the investment of time and money that many of the smaller providers were unable to do. XPERT are also now working with PCTs (now CCGs) to develop courses that are delivered by 'lay-individuals' (people living with diabetes): this could help reduce costs and increase reach.

7.8.11 The product channel requirements.

This is where the product/service is accessed. All the participants agreed (NHS staff and those living with diabetes) that courses should take place at the local level (community centres, village halls, etc). There were a few individuals living with diabetes that said they would like some form of electronic portal to continue with their development. All the interviewed NHS staff said that the cost would be too prohibitive to develop these electronic portals at the moment. Diabetes UK in conjunction with BUPA have since developed a portal for individuals living with type II diabetes.

7.8.12 The regulatory requirements.

In relation to health programmes, identifying and addressing regulatory requirements has to be key, for this process the sharing of information (i.e., patient confidentiality) is paramount. The targeting of individuals becomes very difficult due to the data protection act. My study identified that social marketers had to request the GP practice managers to engage with the diabetic patients in their area. These practice managers had become overwhelmed with the requests they had received. It is now my belief that the management of health issues within the NHS could become more efficient if the issue of sharing patient information could be resolved.

That concludes the outline of the PDA, it demonstrates how important the twelve considerations are in the development of social marketing campaigns.

Its inclusion should provide social marketers with a better understanding of the many barriers that their targeted audience could face.

Having outlined the many options that social marketers could use to develop campaigns I will now focus on how they can be integrated to enhance the SEF.

7.9 Enhancing the SEF.

Having now established and confirmed the results and findings of my research, I would now like to demonstrate how it can be used to enhance the existing SEF. Before sharing the details, it is worth reminding the reader what the SEF is. The framework is a tool to aid social marketers evaluate the impact of the micro, meso, exo and macro systems on a given targeted audience and the required behaviour change (Collins, Tapp and Pressley, 2010). It uses a series of interlocking chains, which highlight how the desired change is affected by negative or positive influences (a negative force reduces the probability of the targeted individual adopting the desired behaviour change whereas the positive influence increases the probability) (ibid), see Figure 7.3.

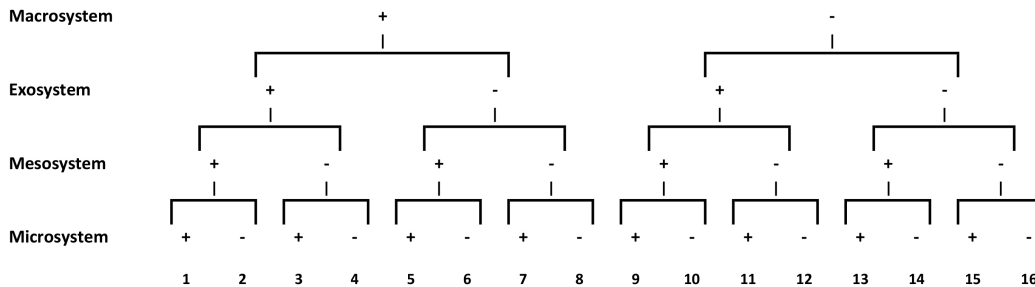


Figure 7.3 The SEF Model (Collin’s Tapp & Pressley, 2010)

There are sixteen possible scenarios (see Appendix 10) these are dependent on the path created across the different systems. Collins, Tapp and Pressley (2010) accept that there is an element of individual judgement that is required and that social marketers will have to engage a variety of stakeholders to establish the details, my research has also demonstrated a way in which it could be done.

In terms of enhancing the SEF: the following steps were developed by bringing together elements of Andreasen’s (1994) benchmark criteria (and the NSMC extended version (French and Blair-Stevens, 2006)), Wilson’s (1990) Product

Definition Assesment, Donaldson, Ishii & Sheppard (2006) Customer Value Chain Analysis and Collin's Tapp and Pressley' (2010) Social Ecological Framework. It starts by confirming the behaviour requirements, see Table 7.3.

Table 7.3: The Behaviour Requirements.

Provide a statement of the issue(s) and address the following questions.

Summary of the issues that need addressing.
 What is required of the target audience?
 Are the changes required multiple or single?
 Are the changes required complex or simple?

This process allows the social marketers to 'frame' the problem. More importantly it establishes the complexity of the process, which can then be used to distinguish the type of development programmes that will be needed to support the social marketing campaign. One of the main findings of this study was, complex multiple behaviour change programmes within the 'health social marketing' arena will require some form of education platform to facilitate the behaviour change that needs to take place.

Once the behaviour change(s) have been decided the social marketer must then decide which individuals to target. This aspect of the process links the social benchmark criteria's (French and Blair-Stevens, 2006) 'Customer Orientation', 'Insight', 'Segmentation' and 'Competition'. It extends the work of the French and Blair-Stevens (2006) by demonstrating the importance of considering the wider ecological environment. It also builds on the foundations of the SEF by giving greater clarity in how social marketers should tackle the problem. The following questions should be answered, see Table 7.4.

Table 7.4: Identifying the targeted individuals.

Within a given population of individuals that are being targeted the following questions will need answering. This will help with the creation of market segments.

What are their biological traits? (More specifically, the focus should be on disabilities)
 What Sub-culture are they from?
 What sub-culture do they live in?
 What geographical boundaries do they live in?
 What are their social economic backgrounds?
 What are their educational achievements?
 What are the likely competitive alternatives to the required behaviour change?

I have identified that the segmentation process in social marketing is different to commercial marketing. It confirms the proposition of Bronfenbrenner (2005), who stated that the bio or genetic differences in individuals would have an effect on an individual's ability to develop (and thus behave). Based on this finding I propose that an understanding of the biological differences in individuals should provide social marketers with a better direction of the theory it should use in developing campaigns. As an example, those at an immanent risk are likely to relate to the Protection Motivation Theory or the Health Belief Model: where fear plays an integral part of the process.

Another important aspect in using the biological trait is its ability to provide a service, which is more inclusive. As mentioned earlier in this thesis people who are blind, deaf or with learning difficulties will have significantly different needs to the rest of the population. Campaigns would need to be developed to suit their requirements.

When considering campaigns that cover different geographical boundaries³³ the social marketer should set the scope to cover the limits of the campaign's exploitation, the maximum being at the National Level. This may require some explanation: in my example I propose that social marketers should be centrally located covering the whole of England. This despite the fact that PCTs act autonomously. PCTs can be allowed to set the numbers of courses they run in a year and the dates, but they should all use the same brand(s) and materials. They can also call upon experts to provide specific services (i.e., linguists etc). Taking it beyond a national boundary will not work because of the differing policies and budgets that each country has. As it stands I have identified that the provision of structured education at the PCT level is clearly unproductive and inefficient. The Department of Health has allowed the various PCTs to create internal competition, which is confusing for HCPs and patients. It may also be a reason why so few people have attended diabetes structured education courses. When faced with this type of issue, social marketers will need to begin 'upstream social marketing' (Wallack et al., 1993); lobbying the appropriate authorities to change their policies.

³³ These geographical boundaries must demonstrate some form of difference: for my research the boundaries were set by each PCT's area.

Based on the work of Bonfenbrenner (2005), the individual's sub-culture, social background and educational are also likely to have a bearing on the behaviour change acceptance. The study has confirmed this fact and now proposes that it is incorporated in the social marketing review.

In addition to establishing the segmentation profiles social marketers must also establish the likely competitive behaviour alternatives that these individuals will adopt. This will help in the development of the new campaigns.

Once the above is known the social marketer can start developing the campaign, or as this research now advocates, the 'Proximal Process' (Bronfenbrenner, 1994, 2005): an enduring form of interactions in the immediate environment with the individual. To do this the study advocates using an adapted version of Wilson's (1990) Product Definition Assessment, which I have now called 'Campaign Definition Assessment' (CDA), see Table 7.5.

Table 7.5: Campaign Definition Assessment (CDA).

The CDA is an aide memoir that social marketers can use develop the campaign. It should maximise their ability in getting it right first time.

What is the objective of the Campaign
What is the Campaign positioning?
What is the Campaign theory?
What is the required strategic alignment?
Who are the targeted customers?
What are the customer's needs?
What is the competition?
What will be the exchange requirements?
What are the Priority Design Criteria?
What are the Campaign channel requirements?
What are the regulatory and ethical issues?

The CDA should help focus the social marketer onto the core issues that can be addressed when developing the campaign. Each element will now be reviewed individually.

The 'objective of the campaign' will provide the social marketer and others within the organisation and society at large with a benchmark that can be measured. It should be agreed and set by the commissioning organisation. It will help with the positioning of the campaign and will help with the design of

the promotional mix: this should target the competition associated with the required behaviour change (or those elements that are linked to it): as an example a language variant does not directly deal with the behaviour change but provides the necessary information in a format for a targeted section of the community.

Campaign theory and evidence will be used with traditional marketing means to target other key stakeholders who will either direct patients towards the social marketing programme or sanction its use. The study identified that the health sector exists within a culture of clinical efficacy: this is why campaign theory and evidence are so important. That is not to say that campaigns will be refused if they lack these traits: social marketers may have to run them as a trial before there is a wider acceptance.

The required strategic alignment is another means of differentiating the campaign in the eyes of the funders and clinicians. In the health sector it will usually be a link to the care pathway. In terms of diabetes it is now part of the NICE guidelines.

The commissioning organisation should know who they are looking to target. This will help social marketers design and develop the appropriate number of variants for the campaign:

Identifying customer's needs should be a cyclical process. This ensures the offering being provided is appropriate for the targeted group. I believe that the social marketing product will follow the same sort of life cycle as commercial products and services.

Listing and communicating the strategies used to address the competition against the required behaviour change will ensure the key stakeholder fully understand the process. It should be reviewed again when the customer's needs are tested. This process will identify new competitors to the required behaviour change.

Knowledge of the exchange requirements will help social marketers produce the appropriate 'pricing strategies' for the desired behaviour change. In this example there should be a variety of times in which an individual could attend a course because, as this study identified, it is time, which is the main barrier to adherence.

Adopting a 'Priority Design' approach will ensure that the key customer needs are incorporated into the product offering. It is a means of maximising the products reach potential with its desired customers.

Reviewing the campaign channel requirements will ensure all the appropriate mediums are used in the delivery of the required behaviour change.

Understanding the regulatory requirements related to the medical condition will ensure the campaign processes and procedures do not infringe the various legislations that exist in the highly controlled health sector.

Once the product or campaign (the proximal process) has been established the social marketer then needs to identify the key stakeholders in the process. They can do this by adapting Donaldson, Ishii & Sheppard, (2006) Customer Value Chain Analysis.

Creating the initial Customer Value Chain is an important part of the process as these key stakeholders will play a big part in ensuring the success of the programme. Rather than 'reinventing wheel' this study advocates utilising known information: as the focus is on 'health social marketing' obtain the care pathway, it will identify the multidisciplinary teams involved in the process. You should then identify the commissioning bodies and national parties involved (these are likely to be the condition charities). Once this has been established, categorise the stakeholders into levels of contact, levels of influence (patient behaviour) and levels of influence (commissioning status), see Table 7.6.

Table 7.6: Stakeholder's Impact.

For each stakeholder the social marketer must answer the following questions these can be categorised as High, Medium or Low.

- What is the stakeholder's level of contact with patients?
 - What is the stakeholder's level of influence on Patient Behaviour?
 - What is the stakeholder's level of influence on Programme Commissioning?
-

This will give social marketers an indication of where to focus their efforts and who to partner with. It should be noted that engagement with these individuals would be through traditional marketing processes.

Having established these key parameters, the social marketer can then move on to, what can be considered as the key SEF elements. This study identified three key microsystems that should be considered within any 'health social marketing campaign': family, work and the proximal process (see Table 7.7). This is by no means a definitive list, factors can be added and/or removed where appropriate, as an example if the campaign had focused on children then 'school' would be an additional micro system to consider.

The most important factor in the microsystem will be the proximal process as this will be the main mechanism for facilitating behaviour change. It may not be the only one but will be seen as the primary mechanism provided by the social marketer and must therefore be considered in the review.

During the interviews I identified three themes that were related to the proximal process. They were proposed to be the core assessment factors in this part of the analysis. The first is awareness, how many individuals are aware of the proximal process (and thus the final behaviour change requirements)? Many of the participants living with diabetes who were interviewed were not aware that they (and their carer/partner) should have been given a place on a diabetes education course. There is clearly a promotional failure, which can be addressed by the social marketer (subject to budgets which will be covered in the exosystem).

Trust is the other element that social marketers should consider when developing their campaigns. My study identified that the NHS brand was a very trust worthy brand: most participants also felt that the DSN were the most credible in the advice that was given (more so than their GPs): they would always turn to the DSN for issues related to diabetes. This means that social marketers should consider the impact of the partners they select for their campaigns.

Another important theme identified in this study was 'relevance'. This is best explained with an example, a participant whose ethnic background was categorised as Asian-Indian stated that she did not attend the course because

she had heard that the dietary advice was too 'Anglicised' and was irrelevant for her and her family.

Table 7.7: Factors to establish in the Microsystem.

The following factors will need establishing: negative issues will need resolving.

- Family:
 - Caring for the problem.
 - Sharing of the problem.
 - Acceptance of the problem.
 - Work:
 - Support for the problem.
 - Acceptance of the problem.
 - Proximal Process:
 - Awareness.
 - Trust of the individuals solving the problem.
 - Relevance to the individual.
-

The mesosystems are combinations of microsystems: my study recommends that social marketers only select those systems that are linked to the proximal process (see Table 7.8).

In designing the solution for this section, the author used the work of Rothschild (1999) and his 'Applications of Education, Marketing and Law', which was based on MacInnis, Moorman, & Jaworski (1991) review of how marketing effectiveness is dependant of an individual's motivation, opportunity and ability to process the brand's offering. Like the SEF, Rothschild uses a positive and negative framework to establish which process to follow, see Figure 7.4:

Motivation		Yes		No	
Opportunity		Yes	No	Yes	No
Ability	Yes	Prone to Behave Use Education	Unable to behave Use Marketing	Resistant to behave Use Law	Resistant to behave Use Law & Marketing
	No	Unable to Behave Use Education & Marketing	Unable to behave Use Education & Marketing	Resistant to behave Use Education, Law & Marketing	Resistant to behave Use Education, Law & Marketing

Figure 7.4: An adaption of Rothschild’s (1999) Applications of Education, Marketing and Law.

Let’s consider Rothschild’s model in detail. In the first instant it can be argued that its focus is on those individuals who have no motivation, but the ability and opportunity to adjust the behaviour: Rothschild (1999) states the resolve mechanism should be the development of a law to counter it. I would argue that it could be law and/or marketing because if we review the work of Maslow (1943) it can be established that motivation is a function of desire and needs. So if it is the case that there is no motivation due to a lack of knowledge of its existence than it must be the marketing function that develops that need and desire.

The other anomaly relates to an individual’s opportunity or ability. My research identified that the ‘process’ (how the structured education was presented) was the main factor that restricted an individual’s ability to participate: more specifically it was time. Some may argue that ‘process’ is part of the extended marketing mix and thus is included in Rothschild’s model. In the interest of clarity, I would like to include it as part of the new model because using this framework will help social marketers overcome any issues in the mesosystem.

Table 7.8: Factors to establish in the Mesosystem.

The following factors will need establishing: negative issues will need resolving.

-
- Family & Process:
 - Motivation.
 - Opportunity.
 - Ability.

 - Work & Process:
 - Motivation.
 - Opportunity.
 - Ability.
-

When reviewing the issues related to exosystem, this research proposes that social marketers should start by focusing on five areas (see Table 7.9). When there are no laws, legislation or statues in place then social marketers should consider adopting 'upstream social marketing' tactics or lobbying to address the issues identified that restrict an individual from applying the desired behaviour change. This option is likely to be a long-term strategy as the timelines for introducing legislation are very slow.

My research also concluded that National social marketing campaigns that were managed and administered locally using local resources could be inefficient and ineffective. I would argue that all National programmes should be coordinated centrally using a single brand. This is likely to be more efficient and effective, such a change in policy will undoubtedly require 'upstream social marketing' work.

When the required behaviour change has a supporting product or service, social marketers will need to ensure that the said items are accessible and inclusive: this goes back to Andreasen (1994) and French and Blair-Stevens (2006) premise that a 'one-size option' should not be used. In this study's example course timings were the biggest reason why individuals were unable to attend. Restricting the course to a certain day and time made it exclusive. Providing the structured education in English is another exclusive measure as it restricts certain sections of the community.

An interesting theme identified in this process was the budgetary constraints. There is very little research relating to costs in social marketing but this study has identified it as a main issues. There will clearly never be a limitless pot of

funds to facilitate behaviour change programmes. Social marketers must therefore always start by developing traditional marketing campaigns to secure as much funds as possible for their programmes.

The final aspect of the exosystem is gaining acceptance from the wider stakeholder group: this study identified that without this acceptance, programmes were less likely to be commissioned or promoted. Commissioners and HCPs were very keen to see evidence that programmes/products/services work. This meant running trials beforehand: another trait, which is lacking in the field social marketing.

Table 7.9: Factors to establish in the Exosystem.

The following factors will need establishing: negative issues will need resolving.

- What are the issues related to statute and policy?
- Will it be available to all who should have access to it?
- Is it inclusive?
- Are there budgetary constraints?
- Is there acceptance by the external stakeholders?

The “*macrosystem consists of the overarching pattern of micro-, meso- and exosystem characteristics for a given culture, subculture, or broader social context with particular reference to the developmentally instigative belief systems, resources, hazards, lifestyles, opportunity structures, life course options and patterns of social interchange that are embedded in each of these systems*” (Bronfenbrenner, 2005, p149-150). This clearly indicates, as my study had found, that no single social marketing campaign would have the same effective on the the wider society. Social marketers will need to tailor their offering if they are to be successful. Based on this finding, my study also believes that social marketers should focus on the following. See Table 7.10:

Table 7.10: Factors to establish in the Macrosystem.

The following factors will need establishing: negative issues will need resolving.

- Culture:
 - Acceptance of the problem.
 - Sharing and supporting of the problem.
- Community:
 - Acceptance of the problem.
 - Sharing and supporting of the problem.

- Religion:
 - Acceptance of the problem.
 - Sharing and supporting of the problem.
 - Language /communication needs:
 - Impact on the problem.
 - Socio-economic background.
 - Impact on the problem.
-

7.10 Time.

Time is the final element of the PPCT model that will be used to enhance the SEF. The study had recognised that time played an important part in an individual's ability to attend a structured education course: what day of the week it was on and what time it was held. Unfortunately, this was not the type of timings that Bronfenbrenner (2005) had proposed nor was it part of the study's objectives.

I had hoped to demonstrate that the length of the course would be positively correlated to an individual's ability to adopt the required behaviour change. This is because Bronfenbrenner (1994) had stated that the proximal process should occur over extended periods of time to be effective. Unfortunately my study found no evidence to justify the proposition. It is highly likely that this type of research does not lend itself to short or long term longitudinal studies. Experiments that compare two or more subjects are likely to be better. Asking participants to self-report on the effectiveness of a course will only yield their perceptions. There needs to be clear measurable traits to benchmark the various courses on offer. Factors could include:

- The number of completers.
- The results of a test at the end of the programme.
- The results of the same test six months after the end of the programme.

Time in marketing, more particularly advertising, is extremely important. Research has shown that 'pulse' campaigns (the continual cycle of running and stopping adverts) are the most effective way of engaging customers (Fill, Hughes, & De Francesco; 2012 and Richards & Curran; 2002). It could be argued that the 'pulse' concept adheres to the same principles that

Bronfenbrenner (2005) advocates, in that the development process (and thus the behavioural change process) has to take place over an extended period of time.

My research cannot categorically say that social marketers should run their campaigns for a specific length, as there are no specific studies to justify it. What it will advocate is, social marketers must state how long each campaign will run for, giving reasons why they have adopted this time. They should also state how they will measure the success of the campaign and how 'legacy tools and processes' (it could be an electronic portal that individuals could interact with or a new charity that will continue the work) can be established.

7.11 The Enhanced SEF.

Having completed a detail analysis of the elements, which are needed to make up the SEF, I can now propose a new model. Before reviewing it in detail, it is hoped that the reader will have seen that engaging in an ecological approach that includes the biological differences of individuals is complex and vast. This may be a reason why marketing scholars and researchers refrain from engaging with such processes. It is unlikely that every element of an ecology system would or should ever be considered when embarking on such research. Here my pragmatic philosophy has guided me to utilise Descartes' reductionist principles (see Beresford, 2010): deconstructing a complex process into its component parts to enable better comprehension. At this stage, due to the limited amount of work that has been completed in social marketing associated with the ecology theory I would maintain that such an approach is indeed the best solution. This argument is supported by the fact that this research's primary objective is to demonstrate how to enhance the SEF which also utilises a reductionist approach. The conceptual overview is illustrated in Figure 7.5:

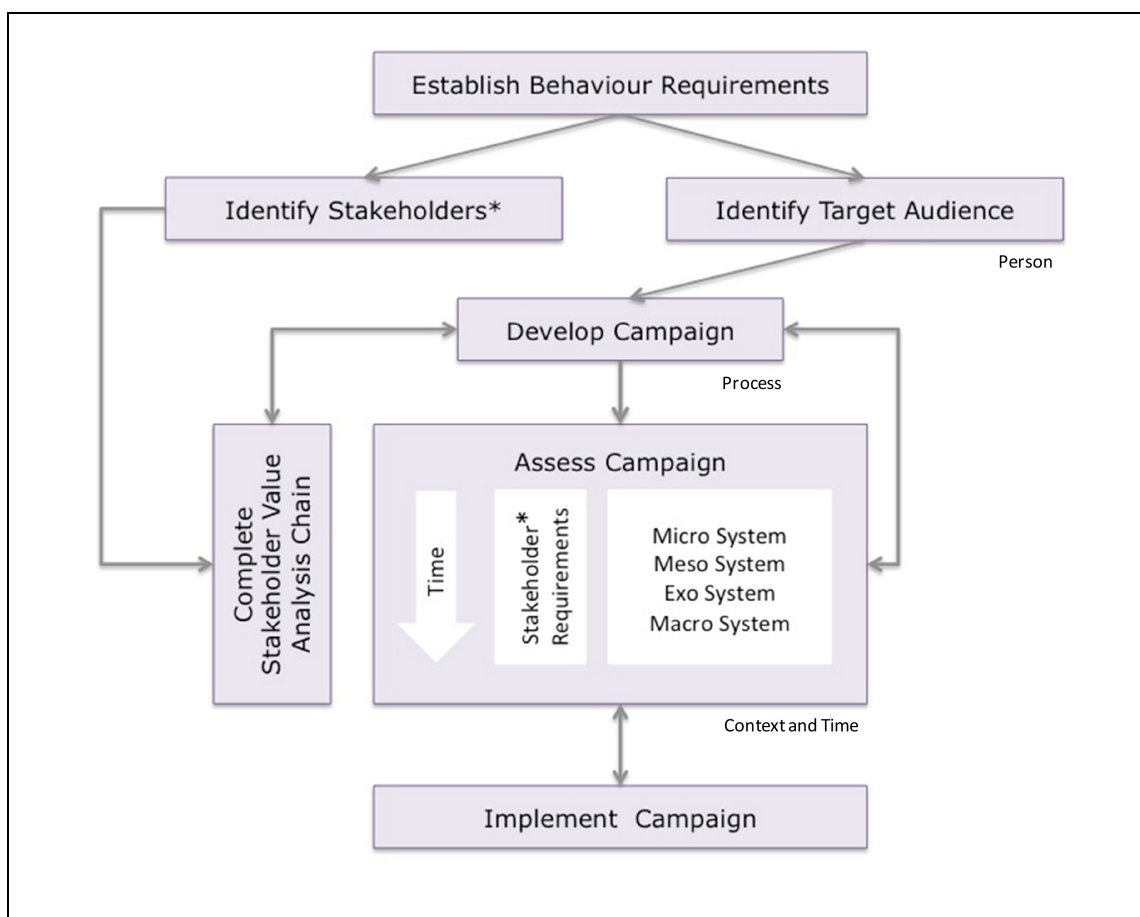


Figure 7.5: The Enhanced Conceptual Model for the SEF.

* There are two categories of stakeholders. The first is associated with the behaviour change, i.e., all those individuals who have an input into its design and/or delivery. The second relates to the social marketing programme itself. In health social marketing one would expect HCPs to support the process.

In this model the stakeholders are not the patients or their carers, they are the HCPs, commissioners and administrators. The patient and carers are the targeted audience.

The first thing social marketers need to do is identify the required behaviour change requirements; this will become the campaigns key objective. It is the reality of the health sector that the social marketer will not determine such objectives: it will undoubtedly be a clinician that provides direction on this, they will become the social marketer's key partner. The social marketer's task is it to make it a reality.

The next step is to establish who is the targeted audience. This group needs to be segregated into 'ecological segments'; this study has already exhibited a number of different groups that demonstrate different traits towards the

required behaviour change. There is unlikely to be a magic formula that provides a complete profile. Social marketers will have to complete a market analysis to establish the exact make up. Notwithstanding this, the segments used in this study are likely to have a bearing on most healthcare studies, so they could be used as a starting point for any future studies.

Another group to consider is the 'external stakeholders': all individuals who are not in the targeted group but have an intrinsic interest in the process. In a healthcare context these are likely to be clinicians, commissioners and healthcare administrators. Most of these individuals can be identified through the various care pathways that have been established by NICE. Once these have been identified then an assessment of the value they bring to the chain (the network of interaction) should be assessed. More specifically the focus should be on how these individuals influence the behaviour requirements in the targeted individuals: this will give the social marketer an idea of how much effort should go into managing and/or partnering these individuals. Social marketers must also establish who has most influence on the funding of the programmes: the marketers will need to use traditional marketing methods to maximise the resources (people and money) are made available for the campaign.

After establishing the key stakeholders and targeted individuals, the social marketer can develop the campaign. This needs to be iterative and cyclical, assessing and adjusting the impact of the campaign on each element of the ecology system (micro, meso, exo and macro) plus the external stakeholders. There should be a clear assessment of time when doing this: how long the campaign will run for, why that time frame was chosen, and how potential legacy systems could be developed to make the process self-fulfilling.

Once this is complete the campaign can be implemented. This also needs to be a cyclical process with marketers assessing the impact on the individuals and external stakeholders using the same process highlighted above.

It should be noted that operationally I found it easier to deal with each positive and negative aspect of the ecology system separately. The original SEF produced 16 separate paths, which had guidance on how to tackle the problems. I felt that the solutions provided by the original SEF were too

generic, it would be better to have a stepped framework providing a list of questions for each stage. The proposed outline is illustrated in Table 7.11.

Table 7.11: The Enhanced SEF Process.

1	Behaviour Change Requirements	
1a	Summary of the issues.	Summarise the key issues, highlighting why the change is important and its likely impact on society.
1b	What is required of the target audience?	This is essentially the change or list of changes that need to happen. Social Marketers cannot realistically develop campaigns without knowing this. It then becomes a measure of performance.
1c	Are the changes required multiple or single?	Behaviour changes may be single (i.e., wear a seat belt when driving) or multiple (as discussed in this research). Multiple programmes are likely to be more complex and costly. Campaign designs need to take this into consideration.
1d	Are the changes required complex or simple?	The question of complexity is likely to a contentious one. It could be argued that multiple behaviour changes are by their nature complex. On the other hand, single behaviour changes like 'stop smoking' could be considered complex as it still remains a global problem. Campaign designs need to take this into consideration.
2	Who is the target audience?	
2a	What are their genetic traits?	The reality is such that many social marketers will not have to worry about this factor. However, when dealing with the health sector, particularly focusing on long term chronic conditions, there may be groups of individuals that require additional support (Blindness, hard of hearing, learning difficulties, etc)
2b	What Sub-culture are they from?	Who do the commissioners want to attract and from where? Getting change from the BME community or from individuals of a lower socioeconomic status is likely to be harder and more costly. Campaign designs need to take this into consideration.
2c	What sub-culture ³⁴ do they live in?	If the targeted individuals live or even work in different sub-cultures how will it affect the campaign? Are there social influences that may harm or support the required behaviour change? Traditional marketing methods may be needed to inform the wider sub-culture what the social marketer is hoping to achieve.
2d	What geographical boundaries do they live in?	Geographical boundaries will have an impact on health social marketing campaigns. PCTs (now CCGs) will determine what happens for their groups of patients.
2e	What are their social economic backgrounds?	Individuals from different social economic backgrounds may have different perspectives of the importance of the behaviour changes. This may require social marketers to adopt a different type of campaign for that group.
2f	What are their educational achievements?	When dealing with complex behaviour change requirements that require some form of education, the level of information provided may need to differ

³⁴ This thesis has defined a sub-culture as a group of people within a culture that may be distinct or hidden, which differentiates them from the larger culture to which they belong (Yinger, 1960).

		depending on the targeted groups educational achievements.
2g	What are the likely competitive alternatives to the required behaviour change?	Social marketers need to identify the likely competitive alternatives to the required behaviour change so that they can develop the appropriate messages and mechanisms to counter them.
3	Campaign Definition Assessment	
3a	What is the objective of the Campaign	Addressing a behaviour change will never be easy due to the many different factors involved. It is likely that financial constraints will limit what can actually be achieved. Social marketers need to scope the campaign(s) so that they and the commissioners are clear about the overall objectives.
3b	What is the Campaign positioning?	The campaign positioning is designed to help social marketers produce the right product for a given target group and/or the related competition that is faced for the said group.
3c	What is the Campaign theory?	The campaign theory is irrelevant to the targeted group in as much as they are more often than not uninterested in the reasons for the campaigns success. It is important for the commissioners and HCPs: the health sector has a history of requiring evidence and clinical trials before a regimen is accepted.
3d	What is the required strategic alignment?	The strategic alignment is a means of demonstrating that the campaigns either adheres to current care policies and/or it fits with Government initiatives. This element is key in gaining support from the commissioning bodies.
3e	Who are the targeted customers?	Identifying the target customers is confirmation of process 2 (highlighted above).
3f	Identifying customer's needs.	This is the process of analysing the market to establish what the targeted groups of individuals need. It is highly likely that there will a range of needs that must be addressed.
3i	Address the competition.	A key aspect of the campaign development is its ability to address the competition associated with the required behaviour change.
3j	Develop the exchange requirements.	The exchange requirement is essentially the pricing strategy. What exchange (the price) will be used and what value will be given to it?
3k	Establish the Priority Design Criteria.	The priority design criteria are essentially the ultimate behaviour change(s) that need to happen.
3l	Identify the Campaign channel requirements.	The campaign channel requirements are the locations and/or mediums used by the campaign. It is essentially the way individuals will engage with the process.
3m	Identify the regulatory and ethical issues.	Regulatory and ethical issues are those factors, which could compromise the efficacy of the campaign.
4	Stakeholder Value Chain Analysis	
4a	What is their level of contact with patients?	Having identified the key external stakeholders, establish what their level of contact with the patient is. This should be ranked; those with the most contact can be used to facilitate the campaign.
4b	What is their level of influence on Patient Behaviour?	Having identified the key external stakeholders, establish what their level of influence is with the patient. This should be ranked; those with the most

		contact can be used to facilitate the campaign.
4c	What is their level of influence on Programme Commissioning?	Having identified the key external stakeholders, establish what their level of influence is in the commissioning process. This should be ranked; those with the most influenced should be targeted using traditional marketing means.
5	The Microsystem Review	
5a	Family and their impact on 'caring for the problem'.	When developing the campaign, establish what impact specific family members will have in relation to the required behaviour change (from a caring point of view). Does the campaign need to interact with them as well? This will be particularly important if the targeted individual is a child, in which case the parent / guardian becomes very important.
5b	Family and their impact on 'sharing of the problem'.	When developing the campaign, establish what impact specific family members will have in relation to the required behaviour change (from a sharing point of view). Does the campaign exclude or preclude other members of the family? Does this create a problem?
5c	Family and their impact on 'acceptance of the problem'.	When developing the campaign, establish what impact specific family members will have in relation to the required behaviour change (from an acceptance point of view). Do these other key members of the family accept the importance of the behaviour change and are they willing to support the process.
5d	Work ³⁵ and its impact on 'support of the problem'.	When developing the campaign, establish what impact 'work' will have in relation to the required behaviour change (from a supporting point of view). The Equality Act 2010 has specific legislation in relation to disabilities, however not all behaviour changes relating to health will fit into a disability profile. Is there a requirement for a wider awareness programme?
5e	Work and its impact on 'accepting the problem'.	When developing the campaign, establish if the participant's employer accepts the issue in question. Is there a requirement for a wider awareness programme?
5f	Other ³⁶ and their impact on 'sharing of the problem'.	When developing the campaign, establish what impact 'other' will have in relation to the sharing of the required behaviour change (Is there a requirement for a wider awareness programme?)
5g	Other and their impact on 'acceptance of the problem'.	When developing the campaign, establish what impact 'other' will have in relation to the sharing of the required behaviour change (Is there a requirement for a wider awareness programme?)
5h	Awareness of the proximal process.	If the campaign is new then Social Marketers need develop a their promotion mix to maximise reach. The testing of the stages in this SEF will be hypothetical. If the campaign already exists and the awareness is poor then additional work will be required to increase awareness.
5i	Relevance of the proximal	The relevance of the proximal process should be

³⁵ For the purposes of this research 'work' is to be considered as the participant's employer.

³⁶ The term 'other' will relate to some additional micro system associated with the participant that may be relevant to the research: they could include school, social club, prison etc.

	process to the individual.	tested with the targeted individuals. If it is found not to be relevant then there may be a need to adjust the programme.
5j	Trust of the providers of the proximal process.	The targeted individuals should have an inherent trust of the organisation providing the proximal process. If this is not the case then the campaign should be moved.
6	The Mesosystem Review.	
6a	Family & Process, Work & Process, Other & Process: - Motivation.	For each mesosystem the first question that should be established is: does the targeted individual have the motivation to engage with the proximal process? If the answer is no, then the social marketer must establish why and address the issue: i.e., was it the positioning, was it the 'exchange' required, was it perceived as relevant to them etc.
6b	Family & Process, Work & Process, Other & Process: - Opportunity.	For each mesosystem the second question that should be established is: does the targeted individual have the opportunity to engage with the proximal process? If the answer is no, then the social marketer must establish why and address the issue: in most cases the opportunity factors will relate to some exo issue, i.e., the PCT does not provide it.
6c	Family & Process, Work & Process, Other & Process: - Ability	For each mesosystem the first question that should be established is: does the targeted individual have the ability to engage with the proximal process? If the answer is no, then the social marketer must establish why and address the issue: in most cases the ability will be linked to an internal issue, i.e., the individual has other priorities that need addressing within the given time frame.
7	The Exosystems Review	
7a	What are the issues related to statute and policy?	Do the policies or statutes address or support the behaviour change requirements? If no, then why not? Social marketers may have to resort to upstream social marketing to resolve the issue.
7b	Will it be available to all who should have access to it?	Is the campaign available to all that it should be made available to? If no, then why not? Social marketers may have to resort to upstream social marketing to resolve the issue.
7c	Is it inclusive?	Is the campaign inclusive? If no, then why not? Social marketers may have to resort to upstream social marketing to resolve the issue.
7d	Are there budgetary constraints?	Will the finances provide the resources needed for the campaign over the required time period? If no, then other creative initiatives may be required alternatively work on gaining additional finances will be required.
7e	Is there acceptance by the external stakeholders?	Do the external stakeholders understand and accept the campaign requirements. If no, then embark on a traditional marketing campaign to engage them.
8	The Macrosystem Context Review	
8a	Culture: -Acceptance of the problem. -Sharing and supporting of the problem.	When developing the campaign, establish what impact the targeted individual's culture will have in relation to the required behaviour change. Is there an acceptance of the problem? Does it facilitate the sharing and supporting of the problem? If the answer is no then traditional marketing awareness s may be required to raise the awareness and gain 'buy-in' and/or the type

		of behavioural change campaign may need to be adjusted.
8b	Community: -Acceptance of the problem. - Sharing and supporting of the problem.	This factor is similar to 8a, the main difference is, a community may have a mix of cultures, which could compound the way social marketers deal with the problem: i.e., it could be iterative, dealing with each culture within the community.
8c	Religion: -Acceptance of the problem. - Sharing and supporting of the problem.	When developing the campaign, establish what impact the targeted individual's religion will have in relation to the required behaviour change. Is there an acceptance of the problem? Does it facilitate the sharing and supporting of the problem? If the answer is no then traditional marketing awareness s may be required to raise the awareness and gain 'buy-in' and/or the type of behavioural change campaign may need to be adjusted.
8d	Language /communication needs: -Impact on the problem.	Does the required campaign reflect the language or communication needs of the individual? If the answer is no, then the type of behavioural change campaign may need to be adjusted.
8e	Socio-economic background.	Does the socio-economic background of the individual have an impact on the acceptance of the required behaviour change? Does the campaign need to change to cater for this group of people?
9	Time	
9a	Set and justify campaign time period.	Each campaign should have a time limit attributed to it, but the limitation should not be due to a financial constraint. There must be some evidence to demonstrate its efficacy: 'first time' campaigns should be considered as a trial, a mechanism to monitor, review and evaluate must be built into the process. This will help with the re-commissioning of the campaign.

It should be noted that the nature of examining a complete ecological system is such that the complexities of reviewing each layer operationally requires the social marketer to address each factor individually. The above assumptions and conclusions associated with this framework does have a number of limitations, these will be reviewed in detail in the next chapter.

7.12 Case Study Example.

Using the framework highlighted in section 7.10 I will now demonstrate how it can be applied to a social marketing programme. In my case the objective is to audit an existing process, but as I will explain during the review it can also be applied to design and develop a programme.

7.12.1 The Behaviour Change.

The issues relating to diabetes (both Type I and Type II) were highlighted in chapter 4. The programme of providing structured health education to diabetics was instigated by NHS England, they were targeting all existing and potential diabetics living in England. The behaviour changes were multiple and complex (see chapter 4). My 'acid test' for categorising a behaviour change as complex is based on changes that need explaining by a trained professional. In this case it would be a healthcare professional (or an experienced diabetic) providing guidance on what an individual should do (or not do) to improve their health outcomes³⁷.

7.12.2 The Targeted Audience.

My research established that the programme was a National one, but each individual PCT had responsibility for delivering it in their own area. The programme was meant to be 'fully inclusive³⁸', there were two major segments: those living with Type I diabetes and those living with Type II. It was clear from my results that many PCTs had a single course in place, which did not satisfy the needs of their given population. Problems included course timings: those that provided programmes that ran Monday to Friday between 9am and 5pm were excluding those individual that did not have the flexibility of taking time of work. Not all PCTs were so restrictive, some gave a variety of options to their participants, i.e., evenings, day-time or weekends, making their provision more inclusive. I also identified that certain elements of the community had trouble understanding English. Some of the PCTs provided language variants of their courses, others stated they did not have the budgets to do so.

This aspect of the framework demonstrated that diabetes structured education courses should involve individuals of all ages, backgrounds, cultures and beliefs. In addition, individuals had a variety of different factors, which would help or hinder their participation in the

³⁷ Examples of simple behaviour changes would be turning of a light when leaving an empty room or eating five pieces of fruit a day. In my opinion the reasons for adopting these behaviour changes are easy to explain and could be provided by anyone.

³⁸ There should be no distinction between, class, race, religion etc. Every individual living with diabetes should have an equal opportunity to attend.

programmes. Social marketers were required to fully understand these factors if they were to fully engage with all individuals living with diabetes. The process of identifying these differences could be proactive (i.e., doing customer research pre-implementation) or reactive (i.e., getting feedback whilst engaging participants on why they chose to engage or not to engage with the programme). I would recommend the adoption of a proactive process to help with the Campaign Definition Assessment.

7.12.3 Campaign Definition Assessment.

In this instance it was the healthcare professionals who designed the primary aspects of the campaigns. By this I mean (in most cases) they developed the core medical directives, identified the campaign theory (in all cases it was Social Cognitive Theory) and tested the campaigns efficacy. All the National programmes had evidence to support the initiative. Some of the smaller local programmes did not, which has created a misalignment with the required strategic requirements (i.e., those set down by NICE (2004 and 2008).

Social marketers should be working with these HCPs to facilitate maximum engagement with the programmes. In addition to this I have identified that the CDA should have included the following for marketing a health education course:

- Individuals would be able to select to attend a course either during a normal working day (Monday to Friday, 9am to 5pm), during the evenings or at the weekends.
- Individuals would be able to select to attend a language specific course either during a normal working day (Monday to Friday, 9am to 5pm), during the evenings or at the weekends.
- Individuals would be able to work on their own using an e-learning portal.
- Individuals would be able to select to attend a single sex course either during a normal working day (Monday to Friday, 9am to 5pm), during the evenings or at the weekends.

- Supporting material would be made available to those with learning difficulties, hard of seeing as well as in a variety of languages.

These options also address the social marketing competition and exchange requirements for the programme. In this case they included:

- Competition:
 - Having to work.
 - Looking after family
- Exchange:
 - The giving up of time.

Note, in this case I am only focusing on the competition associated with attending the structured education courses and not the final behaviour change requirement.

In terms of the priority design requirement, participants had stated that the educators needed to be engaging and knowledgeable. They did not have to be HCPs, in fact, one PCT was utilising volunteers who were living with diabetes to deliver part of the programme.

7.12.4 Key Stakeholders.

The key stakeholders identified were split into two groups: those with direct influence over the patients and those with direct influencer over financing the programmes. I identified the DSNs and Dietitians to be the most influential over the patient participants. There were then the Commissioners and Clinical Leads who had the most influence over financing and instigating the programmes.

With this in mind I would utilise the DSNs and Dietitians as the main stakeholders to convince the patient participants to attend the courses. Other HCPs like GPs would be used as 'sign-posters'. Traditional marketing techniques would then have to be employed to engage Commissioners and Clinical leads to finance the programmes. It

demonstrates that social marketing should not be used in isolation to traditional marketing techniques.

7.12.5 The Microsystem Review.

This section focused on the family, the work environment and the structured diabetes course itself. From the family point of view, I identified that most Type I diabetics are diagnosed as a child. I also identified that the parents or carers became the facilitator for change, this meant behaviour change programmes should be targeted at these groups of stakeholders. Most Type II diabetics tended to 'operate' independently, however, those males who were married or in long term relationships had great support from their wives or partners, particular with the cooking of meals³⁹. This demonstrated the importance of extending the programme not just to those individuals living with diabetes but their wives, partners and carers.

From a 'work' point of view, there was nothing in my study, which demonstrated a help or hindrance to the behaviour change process. In terms of the diabetes structured education, all those people interviewed were positive about the programme and keen to engage. It should be noted that I had adopted a purposive sampling method, only identifying those who wanted to attend. I cannot therefore comment on those who may have been anti-attending such courses. I did however identify that awareness of these courses was poor, on discussing this issue with the HCPs I identified that budgets were the limiting factor. I must therefore question why such a process should be decentralised. National programmes can be promoted more efficiently.

7.12.6 The Mesosystem Review.

I have already alluded to some of the issues associated with the Mesosystem in the CDA. This can be expanded further in the section, if we consider the motivation element of this aspect, many of those individuals I interviewed stated that reason for embarking on the

³⁹ Note, the stereo typical profile of women providing domestic support (i.e., the cooking) for men was evident in my research.

programme was to stay fit so that they could continue supporting their family. The underlying theme was driven by fear; I am unable to test the significance of this finding, as the sample was too small. I would propose that adaptations of Maddux & Rogers' (1983) Protection Motivation Theory may support the process of engaging more people.

As mentioned, my study identified that not everyone was given the opportunity of attending a diabetes course. It appears that budget limitations have restricted the output, some PCTs have become more creative in their delivery by utilising 'expert patients' volunteers to deliver the courses: this has extended their reach. Finally, the ability to attend a course is linked directly to its timings a number of participants interviewed highlight that they would like to attend but personal or work constraints meant that the timings of the courses provided by the PCTs was not convenient.

7.12.7 The Exosystem Review.

The exosystem relates to those factors that the patient participants have no control over. Current policy states that the diabetes care pathway should include some form of structured education. GPs even get QOF points (which equate to funding) from simply informing patients that the service exists. I believe that the process should be altered slightly, in that GPs only obtain funding if the patient attends. That way more effort is likely to be made to encourage said patients to attend. Such a change would require more convincing of the HCP: a number of those that I had interviewed did say that they were ambivalent about the courses and that medical therapy would be better. I would like to see more research on this issue investigated in the near future.

A reoccurring theme relating to the exosystem is the course timings: many PCTs were not flexible in their course timings, using the main working days as their only options. Again it is budget restrictions that account for this limitation. Changes in the structure and management of the process could overcome this: it is my belief that centralising the management of the courses will make the process more accessible. This

includes the delivery of language specific courses and the production of a web-portal.

7.12.8 The Macrosystem Review.

England is a nation of individuals from a multitude of cultures. There is also a clear class structure, which is best represented by the Office of National Statistic's Social Economic Classification (ONS, 2010). Those at the bottom scale will have different needs to those who are at the top of scale. Even though I was not able to get a representative sample of members of the BME and long term unemployed communities, I had established through discussions with the 5 individuals from Pakistan, India and Singapore that certain members of their community would not engage in the process because of language and cultural issues. The provision of language specific and /or same sex courses could overcome some of the concerns and increase participation amongst those 'harder to reach individuals'.

7.12.9 Time and Social Marketing.

Even though my findings in relation to time were inconclusive I still believe that as a social marketer I need to understand what value time has in terms of engaging individuals and costs to the programme. More research will be required here.

A reflection of the results identified for the case study demonstrate those areas where social marketers should focus if they want to increase engagement amongst the population. I had structure the review in such away that it followed the PPCT format, I would argue that it made no difference which element is reviewed first. What I can say is that a number of recurring themes should present themselves. In this case it was the course timings and the financial management of the programmes. It is my belief that these are the areas that should be prioritised first as they are likely to have the biggest impact. I also believe that social marketers are unlikely to be able to satisfy the whole market requirements. What they should do is list its weaknesses so that the commissioning bodies have an opportunity of addressing it later.

7.13 Theoretical Contribution.

In this chapter I have answered Collins, Tapp & Pressley's (2010) call to action by building on their work and reinforcing its foundations. It addresses the concerns that social marketers tend to focus on the individual and not the wider environmental factors (Collins, Tapp & Pressley, 2010; Helmig & Thaler, 2010; Rothschild, 1999, Wallack 1984 and Wallack et al., 1993). This was first raised in the eighties, and has been revisited every decade since. I have also demonstrated how complex and multiple behavioural change requirements can be addressed in research. The inclusion of a value chain was split into two parts, the first focused on the diabetes health education course and the second on the research methodology (i.e., the need to work with clinicians in the research process).

I believe that this research project will contribute to the theory and knowledge of social marketing by addressing a number of gaps that were identified during the literature review. The first relates to the concerns raised by Andreason (2006), Collins, Tapp & Pressley (2010), Hasting & Donovan (2002), Helmig & Thaler (2010), Rothschild (1999), Thaler & Sunstein (2008), Wallack (1984) and Wallack et al. (1993). They believe that the majority of research associated with social marketing only focused on providing solutions for the individual.

Secondly, this research addresses the fact that the SEF was based on the Bronfenbrenner's original ecological theory: a model which Bronfenbrenner (2005) himself stated was flawed. Enhancing the SEF model with Bronfenbrenner's latest developments should resolve these flaws and provide a better solution for social marketers who wish to adopt an ecological framework.

The final contribution of this study is that it addresses Collins, Tapp & Pressley (2010, p1193) call to action to "test the SEF against a wider variety of available social marketing case studies, more specifically, are some social marketing interventions more likely to work than others?" They also identify the new skills needed for social marketers to apply such a framework, this included developing a value chain of delivery in partnership with other specialisms (ibid).

Ultimately, my goal is to provide an adapted SEF model that will allow social marketers to deal with the variety of stakeholders and constraints that they may experience when catering for the wide spectrum of requirements along a social ecological continuum.

7.14 Conclusion.

I have completed a detailed critical review of my research findings and demonstrated how the SEF can be enhanced using Bronfenbrenner's (2005) Person, Process, Context and Time Model. I have also illustrated its use in relation to engaging those individuals living with diabetes. The new model is however far from complete; there are a number of limitations with my research that need to be considered before a final conclusion can be made. These will be discussed in the next chapter.

Chapter 8: Limitations And Implications Of The Research.

8.1 Introduction.

This chapter has been written to highlight the limitations of the research and to propose new programmes of study that may support, enhance and overcome the restrictions identified. Sixteen issues were identified relating to:

1. Social marketing.
2. Not focusing on the ultimate behaviour change.
3. The black, minority and ethnic sample.
4. The long term unemployed sample.
5. The case study approach.
6. The sampling methods.
7. The focus on Primary Care Trusts.
8. The interview process.
9. The transcribing process.
10. Obtaining data through a freedom of information request.
11. Attitudes of clinicians to diabetes structured education courses.
12. The regions of England used.
13. Using anonymous participants.
14. Short URLs.
15. The research time frame.
16. Producing a structural model.

Despite these limitations and the need for additional future research programmes, I maintain that the method chosen was the best at the time of initiation because of the restrictions in time, money and additional resource support. I also believe that the research objectives for this study were achieved: i.e., its aim of demonstrating that the Social Ecological Framework (SEF) that was originally introduced by Collins, Tapp & Pressley (2010) could be enhanced by integrating Bronfenbrenner's (2005) Process, Person, Context and

Time model. The question of, 'would I do anything different, knowing what I now know' will be discussed at the end of this chapter.

8.2 Social Marketing.

The focus of this research has been on the health category of social marketing. There are however three further categories within the subject group: environmental, social and health & safety (Kotler, Reberto and Lee, 2002). Each of these categories will have slightly different factors that need addressing when producing a campaign, as an example: it could be argued that health & safety campaigns require more 'macro social marketing' than the other social marketing categories. This macro social marketing is usually in the form of some kind of legislation, i.e., in the UK, initiatives like the wearing of seat belts and motorcycle helmets or restricting the use of making a phone call whilst driving are all social marketing behaviour change requirements that are supported by law. Taking this factor into consideration a question that social marketers should ask is, 'is it a case that health campaigns work better when there are legal restrictions in place to support them?' My study was unable to provide a solution to the dilemma because there are no statutes in place to support the behaviour change of individuals living with diabetes; that is not to say that there should not be any. This is because there are other behaviour change requirements within the health category within social marketing that have used macro social marketing solutions: many countries across the world have passed statutes to tackle the problems associated with drinking and smoking (i.e., introducing age limits for drinking and restrictions on where individuals can smoke).

Consider another example, unlike health social marketing campaigns, which tends to be limited to local or national boundaries; environmental social marketing campaigns can have a wider geographical scope. A good example is the Kyoto Protocol (UNFCC, 1988), which is an international agreement that is coupled to the United Nations Framework Convention on Climate Change. This is where countries associated to the United Nations have agreed on a number of emission reduction targets. Unlike this research where the focus was on an individual changing their behaviour, the Kyoto example requires behaviour change at society, government, business and individual levels. This was not tested within the research methodology.

Taking these differences into account, can the enhanced SEF cater for different types of social marketing initiatives? I would argue that it can, in the first example where legislation changes are required, the social marketer would identify the need during their audit: i.e., this is where the audit would identify that majority of individuals who are required to adopt the behaviour change will not. A solution would be to use the Exosystem, getting the Government to introduce new legislation or some form of other initiative to facilitate the change⁴⁰.

8.3 Not Focusing on the Ultimate Behaviour Change.

Social marketing is essentially a process that encourages positive behaviour changes. My study focuses not on the ultimate behaviour change but on the campaigns associated with facilitating such changes. Some may argue that such an approach does not comply with the true spirit of social marketing, I believe that it does, because of its emphasis on the social marketing campaign: an area, I would argue, where very little work has been done.

The engagement with the diabetes structured education course (or the willingness to engage with such courses) demonstrates an intention to adopt the positive health behaviours (this was identified through the questioning of the participants). *“Intentions are assumed to capture the motivational factors that influence a behaviour; they are indications of how hard people are willing to try, of how much of an effort they are planning to exert, in order to perform the behaviour”* (Ajzen, 1991, p181).

It should also be noted that my study established that, unlike other social marketing campaigns, the behaviour change requirements associated with the positive management of diabetes care is complex and requires some form of education (established through this study). According to Ajzen’s (1991) theory, the intention is supplemented by an individual’s perception of the behaviour control. By this he meant that as an individual’s volitional control declines, the perception of the behaviour control becomes increasingly important (ibid). In

⁴⁰ Good examples of the legislation changes can be seen with the smoking cessation initiatives, the banning of smoking in public places has had a major impact on consumption. Other types of initiatives could be tax increases as seen in cigarettes and alcohol sales or tax breaks with energy saving insulation and better emissions from cars.

the context of this research, the perceived behaviour control is facilitated by the diabetes health education courses: the complexity of the behaviour change requirements is greatly reduced following the attendance of a diabetes structured education course.

Based on these facts, I am confident that the perceived limitations about not focusing on the actual behaviour change are in fact non-existent and that this study adds real value to the theory and knowledge of social marketing by demonstrating how its campaigns can be reviewed.

8.4 Sampling the Black Minority Ethnic (BME) Community.

I had an objective of sampling a variety of groups to test Bronfenbrenner's (1977, 1979 & 2005) propositions related to the Macrosystems. One of which was from the BME community, this is because a key characteristic of the ecological theory is the need to review the impact of different cultures. Unfortunately, I struggled to engage with the individuals from this community. Out of the original 281 respondents from the online survey only three from the BME community had agreed to be interviewed: the study had to seek support from staff at XPERT Health to identify further potential participants. In the end an additional two individuals from the BME community had agreed to be interviewed.

It is not clear how many of the Diabetes UK's members were from the BME community at the time the advert was placed, calling for participants. Could it be that Diabetes UK also struggles to engage with this element of the community? My study was not able to get an answer from the charity to address this issue.

Despite this, the insights obtained from the five BME participants were very useful, unfortunately the results cannot be generalised, that said the findings for this research are similar to larger studies (HSCIC, 2006): reviewed all of the PCTs and the diabetes provisions to the community). There is no indication how the study would have fared if it managed to recruit individuals who could not speak English. This should be listed as a requirement for future research. It

would require translators and additional support from the community, a possible partner could be the South Asian Health Foundation⁴¹.

8.5 Sampling the Long Term Unemployed Community.

As with the sampling of the BME community I struggled to engage with individuals who were classed as long term unemployed (for the purposes of this research, long term unemployed was categorised as an individual who had been unemployed for longer than 12 months. It also included those individuals who saw themselves as a housewife or househusband of a spouse (or partner) who had been unemployed for one year or more: housewives and househusbands whose spouse were in employment or retired were not considered as long term unemployed).

Such a group would have provided my research with valuable insights into this market segment. It is with regret that none were available, as discussed, I have anticipated that these individuals were focused on the lower scale of Maslow's (1943) hierarchy of needs, albeit the safety and security associated with management of their diabetes being relegated to below the need for the provision of food and shelter for themselves and their families. This guess is based on discussions with the clinicians and administrators of the NHS who are aware that the engaging with these types of individuals has always been very difficult.

A separate study should be instigated, working closely with the Department of Works and Pension so that the appropriate individuals can be targeted at the job centres. An additional study should also be considered, targeting those individuals who are homeless. Due to the difficulties in engaging with such a cohort it would be prudent to expand the research to cover wider social marketing issues.

8.6 The Use of a Case Study.

Gerring (2007), Hillebrand et al. (2001) and Steinmetz (2004) all believe that the use of case studies in research is not ideal because the findings cannot be

⁴¹ The South Asian Health Foundation is a charity that was formed to support South Asian communities living in the UK in relation to health and well being (SAHF, Undated).

generalised to other environments. There are others like Tsang (2013) who identified twenty-five different articles, published between 2008 and 2012 from the Academy of Management Journal, that all used case studies to theoretically generalise the outcomes.

One can thus argue that there is a body of scholars who believe that case studies are an appropriate form of research. Individuals like Harrison and Easton (2004) would contend that, unlike quantitative methods, case studies provide the depth and detail needed to establish the 'whys' and the 'hows' where as a quantitative means would only identify the 'whats'. This puts the phenomena being investigated into context and not independent of it, which is what happens with quantitative studies (Gibbert et al., 2008).

Just like Chreim et al. (2007), my study is based on just one case: a review of diabetes structure education in NHS England and as I have already identified, there will be some, who would state that this limits its ability to be generalised. However, "*naturalistic⁴² case studies should be judged not on the basis of generalizability, but on the basis of transferability and comparability*". (ibid, p1535)

8.7 Sampling Methods.

The sampling method used for this research was not random. This means that the inferences made in this study should not be generalised to the population of diabetics living in England. The limitations of embarking on an unfunded doctoral research programme focusing on human behaviour make it difficult to truly gain a representative sample of a given population. Before dismissing this project it is worth reminding the reader of the work form Kish (1965, p28-29 cited in Baker et al., 2013):

"Great advances of the most successful sciences—astronomy, physics, chemistry—were, and are, achieved without probability sampling. Statistical inference in these researches is based on subjective judgment about the presence of adequate, automatic, and natural randomization in the population ... No clear rule exists for deciding exactly when

⁴² Naturalistic observation is when observations are done in natural or real life settings: i.e., the researcher will make no attempt to manipulate the situation for making the observations.

probability sampling is necessary, and what price should be paid for it ... Probability sampling for randomization is not a dogma, but a strategy, especially for large numbers”.

This means that there is still a place for non-probability sampling in research (Frankel & Frankel, 1987) although some may argue that all sampling has to be random if a generalisation is to take place because the its primary objective is to make reliable and accurate inferences to a broader population (i.e., Baker et al., 2013).

Based on the work of Flick (2014), scholars should answer the following questions when conducting research using non-probability samples:

1. What types of people are systematically being excluded from the sample?
2. What types of people are over represented in the sample?
3. Have the findings been replicated by different researchers using a variety of data-collection methods from different samples?

In this study the types of people excluded from the research were those living outside of England, those under 18 years of age and those who do not have diabetes. It also excluded non-members of Diabetes UK at because it specifically used those individuals who subscribed to their Balance Magazine. The total population of this membership was 140,000 (Diabetes UK, 2013).

Taking into consideration that this is an exploratory study, which is merely looking to confirm the transferability of Bronfenbrenner’s (1977, 1979 & 2005) ecological theory to the social marketing domain, it could be claimed that the limitations are acceptable. There should be further work, ideally commissioned by the NHS, which can test the wider population of diabetics.

It is worth highlighting that all researchers face a significant challenge when dealing with the human population: probability sampling with high responses are difficult and costly to achieve (Bryman, 2012). When considering non-probability approaches researchers should rely on the appropriateness of the models used, respondent selection and post hoc adjustment (ibid). In this case there should be very little argument against the use of the members of Diabetes UK and comparison of results with other NHS studies.

It should also be noted that Lincoln and Guba (1994) advocate that researchers should consider the studies 'trustworthiness and authenticity' as an alternative, particularly when the research is qualitative. In this case as a mixed methods approach was used, I still consider the application to be valid.

Trustworthiness starts with reviewing the credibility of the research. The assessments of the supervisors and external examiners together with supported peer-to-peer articles that will be produced from this thesis will be the catalyst for providing the credibility of the research.

The next aspect related to trust worthiness is transferability, this concept has been widely used by many scholars as a means of not being able to generalise as a result of not using random samples (Bryman, 2012, Flick; 2014 and Lincoln & Guba; 1994). It relates to producing "*rich accounts of the details of a culture*" (Bryman, 2012, p392). These accounts will provide other readers with the ability to make their own judgements about the transferability of the findings (ibid). This means that it will be down to the other researcher to make a judgement on how reasonable it is to 'transfer the findings'

Another factor to consider is dependability: Lincoln and Guba (1994) believe that researchers must use an auditing approach to monitor their projects. This means keeping records for all aspects of their research. The author agrees with the concept in principle and many of the stages are monitored and reviewed by the doctoral supervisor for PhD students, however presenting the information to third parties becomes almost impossible: until the day comes when journals set, as a requirement, the need for authors to submit data sets with each manuscript it is unlikely that this concept can truly be tested.

The final aspect of trustworthiness relates to conformability: it is associated with a researcher's ability to produce results that conform or are corroborated by others (Lincoln and Guba, 1994). The best way to do this is to undertake an audit, which examines the data collection and analysis procedures: comparing it with others to gain an indication of bias or distortion (ibid). This study has done that and as stated earlier, many of the findings are similar to National programmes commissioned by the NHS.

There is then the ‘authenticity of the research. This is made up of five elements: fairness, ontological authenticity, educative authenticity, catalytic authenticity and tactical authenticity (ibid). In terms of fairness it should be established that my research fairly represents the views of those individuals involved in the social setting. In this case the research has been designed to identify and understand the needs from a range of segments within the social setting. I was not able to get a representative view of those individuals from the BME community and those individuals from the lower end of the social economic spectrum: the details of these two concerns were discussed earlier in this chapter. Apart from these two groups there is a strong argument to say that the research provides a fair representation of the social setting.

In terms of ontological and educative authenticity, these will be considered together because the discussions surrounding the ‘nature of being’ related to diabetes education courses helped educate others regarding their perspectives on the rights and wrongs of these courses. As an example, when discussing the restricted times of that the various PCTs had for their diabetes education courses with individuals who were retired, it became clear to them that not everyone was able to take time off work to attend. In the past they would have never considered it to be an issue.

Finally, the catalytic and tactical authenticity will also be considered together. This is because they both focus on engaging the participants into taking action into making change. Diabetes UK is very interested in my findings and would like to work on increasing the awareness of this short fall across the whole of the UK. There may even be an opportunity to produce a white paper to use as a basis for lobbying the Government.

8.8 Primary Care Trusts (PCTs)

It is unfortunate that at the time on embarking on this research NHS England was in transition. They had begun the process of evolving the 152 PCTs into what we know to be 212 Clinical Commissioning Groups (CCGs). PCTs use to be the commissionaire of most NHS services, they controlled 80% of the NHS budget (NHS Choices, 2013a). These PCTs had to ensured that there were enough services for people within the PCT’s area of responsibility and that the services were made accessible (NHS Choices, 2013b). On the 1st April 2013,

PCTs were abolished and replaced with CCGs: a summary of CCGs can be seen in box 8.1.

<p>Clinical commissioning groups (CCGs)</p> <p>CCGs now manage all GP practices they also include administer other health professionals, including nurses and dietitians. CCGs commission most services, including:</p> <ul style="list-style-type: none">• planned hospital care,• rehabilitative care,• urgent and emergency care (including out-of-hours),• most community health services and• mental health and learning disability services <p>CCGs can commission any service provider that meets NHS standards and costs. These can be NHS hospitals, social enterprises, charities, or private sector providers.</p> <p>CCGs must ensure that the quality of services they commission take into account both National Institute for Health and Care Excellence (NICE) guidelines and the Care Quality Commission's (CQC) data about service providers.</p> <p>The CCGs and (NHS England) must involve their patients, carers and the public in decisions about the services they commission.</p>
--

Box 8.1: A Summary of the New Clinical Commissioning Groups (NHS Choices, 2013b).

Taking this into consideration the main difference between PCTs and CCGs is, CCGs will have more scope to move outside their area to commission services. This means that the provision of diabetes structured education courses should be better. I advocate that a new research project should be instigated in 2016, using the Freedom of Information request to complete a census of how the CCGs have fared in their delivery of diabetes structured education courses. This will demonstrate how (if at all) the CCGs have improved.

Another important point to consider is the impact of the population change within the CCGs. Figure 8.1 and Figure 8.2 illustrates the raw data and standardised data for the population distribution between the CCGs and PCTs. The graphs demonstrate that the distribution of individuals within the CCGs is similar to the profile of the majority of PCTs that use to exist.

A simple independent t test has illustrated that there is no difference between the populations of PCTs and the population of CCGs (Naylor, 2012).

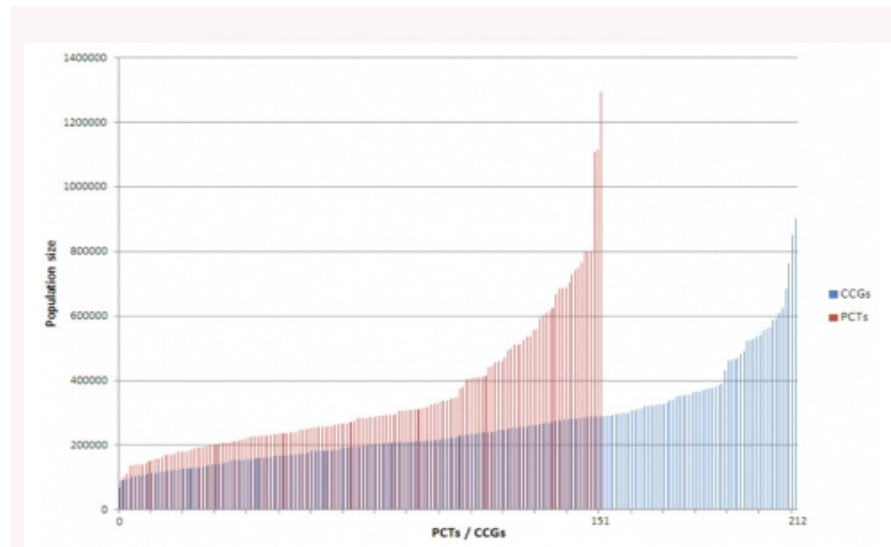


Figure 8.1: A Comparison of PCT and CCG Population Size - Raw Data (Naylor, 2012)

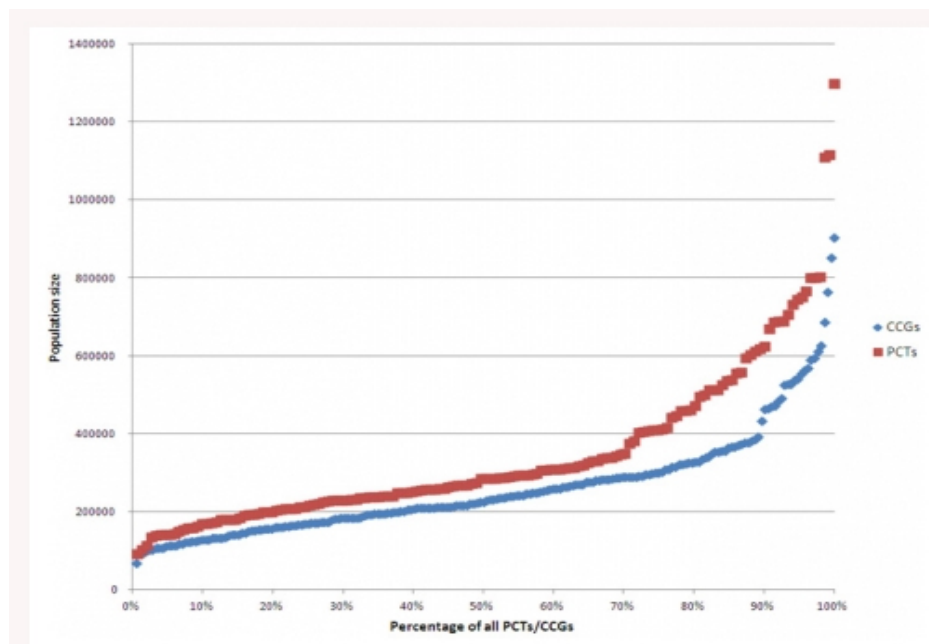


Figure 8.2: A Comparison of PCT and CCG Population Size - Standardised Data (Naylor, 2012)

8.9 The Interview Process.

My research carried out a set of qualitative semi-structured interviews using only the telephone as a medium for communication. There is a body of

literature that recommends telephone interviewing should be restricted to structured interviews or very specific situations (Fontana & Frey; 1994, Harvey; 1988 and Rubin & Rubin; 1995). This was contradicted by Fenig et al. (1993) who believed that telephone interviewing is ideal for issues related to sensitive topics where anonymity becomes a key criterion for the participant. In this research the questions surrounding health can be considered as sensitive and deemed appropriate. Creswell (1998) also believes that telephone interviewing is more likely to engage with those individuals who are 'hardest to reach'. Creswell (1998) goes on to state that telephone interviewing restricts the user from identifying the participant's informal and non-verbal communication. Despite these differences in opinion Sturges and Hanrahan (2004) could find no significant differences in the approach.

Taking all these points into deliberation, I would have preferred to engage with participants on a face-to-face basis so as to build on the non-verbal and informal communications. As the project covered the whole of England, the cost of moving from participant to participant would have been too prohibitive. As an alternative, I would have liked to have conducted the interviews via Skype or a webinar (a web seminar using internet audio and video applications). This option would mean the interviews could be recorded using a screen capture device and analysed in detail after the interview. None of the first five participants interviewed had the technology to support the process. The decision was then made not to pursue this type of recording and to stick with the telephone.

The telephone interviewing did have some technical issues: each interview was recorded after gaining permission from the participant. This required the phone to be in 'hands free' mode. Not all of the recorded interviews were very clear: it was difficult to identify some words from those participants who were softly spoken. In an attempt to resolve this problem, I sourced an 'in ear microphone' (the microphone connects to the recording device through the normal jack and the microphone fits into the researchers ear like an ear phone). There was a marked difference in the quality of the recordings making it much easier to transcribe. I would recommend its use for further telephone interviews.

8.10 Transcribing Process

The transcribing process had planned to incorporate a number of best practices, including using Drew's (2005) transcribing conventions, see Table 8.1.

Table 8.1: The Transcribing Conventions Used (Drew, 2005).

(1)	Pauses: the number in the bracket represents the time in seconds that the participant paused between speaking.
:::	Words that had an extended sound to them were depicted with colons, the number used were in proportion to the length of the stretch.
Word	An underlined word demonstrates stress or emphasis.
-	A hyphen was used to indicate a word is broken off.
.hhh	.hhh was used to demonstrate an audible intake of breath.
WORD	Words written in capital indicate an increase in amplitude.
(Words)	Brackets were used to bound any uncertain words during the transcription, they also include the transcriber's best guess.

The fact that the interviews were completed via the telephone meant that interpreting the body language was impossible. I had used Express Scribe Transcription Software by NCH Software to aid the transcribing process, a key addition to the Express Scribe platform is the foot peddle: allowing the transcriber to easily move forward, halt or reverse the audio whilst typing with both hands. The University of Hull only had a limited number of these accessories, which were all being used at the time of transcribing. This meant that I had to complete the process using the keyboard controls, which were slower. It is recommended that all researchers have this hardware to hand when transcribing.

8.11 Problems with Freedom of Information Requests

Under the Freedom of Information Act (2000) individuals have a right of access to information held by public authorities. These individuals must receive written communication from the public body stating whether or not they hold the required information (ibid). If it is the case that the public body has the

information, then they must communicate it to the requesting individual (ibid). Now, despite there being legislation in place to provide the information, I identified that each PCT had a slightly different way of presenting their data. There were also a large number of PCTs who stated that they did not monitor that aspect of their diabetes care pathway and were unable to provide any feedback. It is not clear if this really was the case or the transitioning from PCT to CCG meant they had lost the data or they decided not to provide the information. Either way, it is still a concern that certain elements of NHS England (a public body) had no control over its costs. It also appears that the questions should have been more explicit: to reduce the differences in the way they responded.

During a 'risk assessment' of the process, I established that the email storage capacity for students at the University of Hull was very small: a limit of 100 mb (University of Hull, 2014). According to O₂ (n.d.) this is equivalent to 32 emails with attachments, which would have been a big problem considering the research was expecting a minimum of 151 responses with attachments. Had the study maintained a University email then it may have caused some returning emails to bounce. It would have definitely caused the management and control of the process a problem with no way of physical storing historical evidence in an electronic format: files would have to be deleted in order to maintain a working email platform. As such I took the decision to create a new Gmail account and manage the process through this particular platform.

The drawback of such an approach was that it provided a 'lower' professional image for my research. It would have been better to have made contact with the recipients using an official email (i.e., one ending in @hull.ac.uk). It is not clear if this approach had a bearing on the way the recipients tackled the question. What was apparent was the way different groups answered the question. It was hoped that the questions were structured in such a manner that the responses could be easily correlated. Appendix 4 illustrates the Freedom of Information request, based on the responses gained it may have been better to have structured the questions such that they were more rigid.

In terms of future research, there is a definite need to complete the exercise again, this time focusing on the CCGs. The lessons learnt from the first study should be incorporated into the new methodology.

8.12 Attitudes towards Diabetes Structured Education Courses.

Apart from the DSNs and Dietitians, the clinicians and administrators of NHS England demonstrated a sense of apathy towards diabetes structured education courses. They felt that the clinical therapies were more likely to benefit the individuals than the structured education courses. This may account for a possible reason why the uptake of the courses has been so poor across the England.

It is not clear if this poor attitude is prevalent amongst the majority of the clinicians and administrators within NHS England, or if it was just a coincidence that the majority of the sample in the study examined thought that the process was irrelevant. A wide spread study should be undertaken focusing initially at GPs to understand their acceptance and attitude of diabetes structured education.

8.13 Regions of England.

At the time of investigation there were 152 PCTs, which were part of ten strategic health authorities (NHS Choices, 2013b), see Figure 8.3:

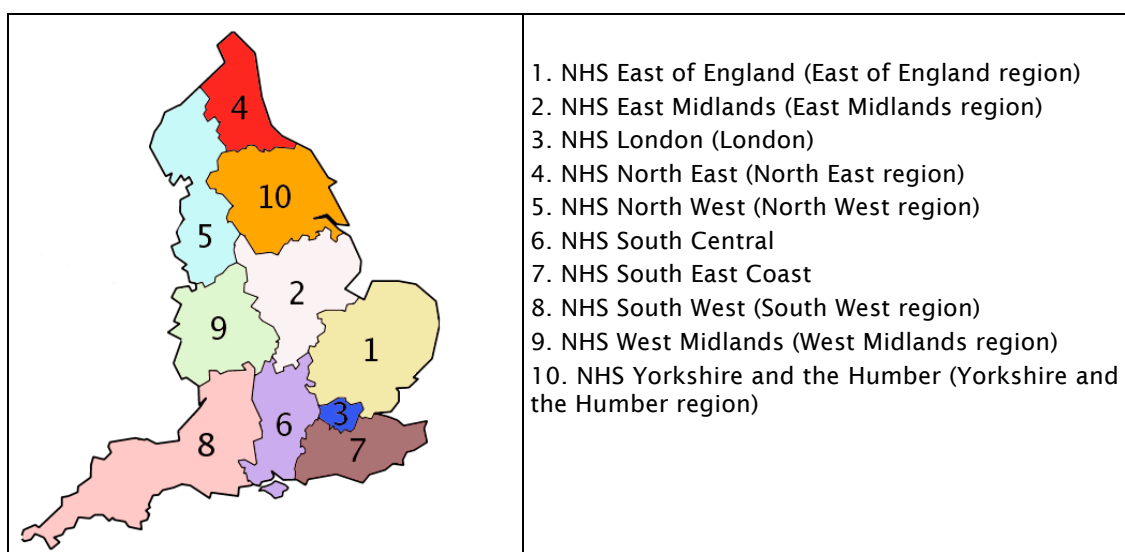


Figure 8.3: The Strategic Health Authorities for NHS England (2011 - 2012) - Adapted From NHS Choices (2013b)

When reviewing the patient participants, it would have made more sense to identify a range of individuals from each of these areas rather than the 5 that were used in my actual research. This would have meant interviewing at least 60 individuals: i.e., three Type I and three Type II⁴³ from each SHA. As it stands, I recognised that three was probably too small a sample: for each condition there should be at least one male and one female who was employed, unemployed, from the BME community and classed as white British. This would equate to eight participants from each group, i.e., 80 participant interviews for the original study and 160 if using all 10 strategic health authorities. Taking into account that the study also needed to interview a selection of HCPs and administrators (quantity not specified as this section used a theoretical sampling method), the workload would have been too prohibitive for a research project that was unfunded. Even though the regions reduced to five there was a selection of individuals from most areas of England.

8.14 The Use of Anonymous Responses.

I had originally established a protocol of providing anonymity to all participants. This is considered to be best practice when involving human participants (MRS, 2014) however there is a question concerning a study's ability to identify and highlight key issues regarding the information found. If a researcher identifies a danger to an individual then the researcher would have a moral obligation, under the safeguarding handling procedures (NHS, 2013), to make the appropriate individuals and authorities aware of the potential problem. On the other hand, if the researcher had identified a minor legislative infringement, should he or she inform the appropriate authority? These are some of the ethical dilemmas faced by individuals doing research.

My study had established that certain PCTs were allegedly infringing copyright law by developing their own programmes using materials from other providers so that they did not have to pay the annual licensing fees required for the said programme. This was not a safeguarding issue, so there was no need to report it. Would it have been interesting to highlight the good and bad practices of certain PCTs in the final report? The issue a researcher will face is, had the

⁴³ Three was the target number used in the actual research from each of the five locations for each condition.

participants been made aware that their anonymity would not be guaranteed, then would they have shared the type of information that could compromise their position within the organisation? The answer is likely to be no (in my opinion), so even though the study is unable to highlight specifically some of the actual working practices of the various PCTs I am happy that it has gained valuable and insightful practices of the clinician and administrators within NHS England.

There is an opportunity to work with the NHS to establish a detail review of the working practices across the country, which should provide even more insightful aspects. The study would have to take a different approach, focusing on the policies and procedures of each organisations: that way individuals would not be identified as the key perpetrators of 'bad news'.

8.15 Short URLs.

Short URLs (uniform resource locators) is a process that allows individuals to compress long website addresses into a manageable summary. There are many providers of this service including Bitly.com, TinyURL.com, Ow.ly and Goo.gl. Most of these platforms are free to use, some provide additional benefits like tracking and editing if users pay a subscription.

The relevance of short URLs becomes apparent when we consider the online survey platform used, which was www.surveys.ie. Survey.ie was selected because of my familiarity with the tool and its functionality: i.e., it is easy to integrate with SPSS. The output links it generates it very long and cumbersome:

<http://surveys.ie/Run/SRx.aspx?SurveyId=2a9ff877-7e3a-4c2e-a2b0-b8b699f8b894&PageId=272bb4de-c6a0-4b2e-b88c-74a7202ec48d&Ox=StrategicPlanet>

If the mechanism for engaging with participants was limited just to an online platform, then the length of the URL would not be a problem as it could either be presented in full or shorten through a hyperlink or by using one of the Short URL platforms highlighted above. When the link is presented via a printed medium, as this research did through Diabetes UK's Balance magazine (see Figure 8.4) it would be wrong to expect users to type in very long and

confusing web addresses (like the one produced by Surveys.IE above): this type of practice is open to mistakes.

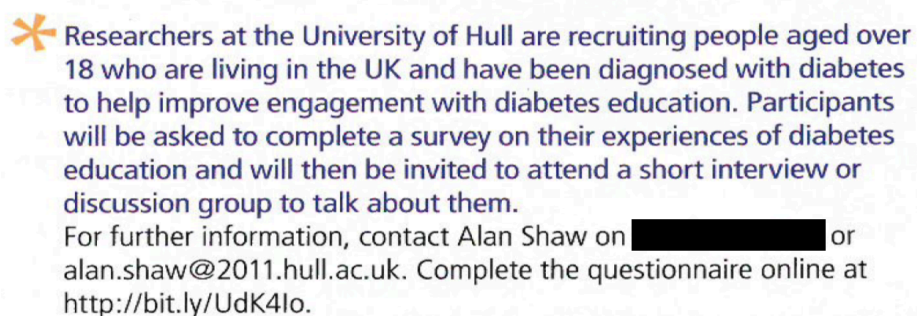


Figure 8.4: The advert used to direct participants to the survey.

Researchers will need to attempt to shorten the address by either using a QR Code (quick response code) or a Short URL alternative. QR codes would require an app to read it on smart mobile device. Restricting the link to a QR code format may have exclude elements of the population, so the decision I took was to use the Bitly Short URL platform. The output provided by Bit.ly was bit.ly/UdK4lo. The research had not anticipated that this address would cause confusion, however, a week after going live I had been contacted by a number of participants saying they could not access the survey. It appears there was confusion between the letter l and the number 1 and the letter o and the number 0. I had to quickly implement a contingency plan by creating additional short URLs using Bitly's editing facility:

- bit.ly/UdK4lo original short URL.
- bit.ly/UdK410 first edited short URL.
- bit.ly/UdK4l0 second edited short URL.
- bit.ly/UdK41o third edited short URL.

There is no means of adjusting the 'l' in bit.ly. There is also no way of identifying how many individuals had attempted to access the survey but failed because of their misinterpretation of the URL address and had given up. Had the issue been identified earlier it is likely that final number of participants would have been higher.

This research recommends that scholars looking to use Short URLs to direct participants to a webpage via a printed advert should restrict their use to those that allow editing. They should remove o, 0, l and 1 (depending on the type face also remove s, 5, z and 2).

8.16 The research time frame.

Earlier in this chapter I discussed the limitations of not focusing on the ultimate behaviour change requirements. A key reason for this issue is the time frame associated with such a study. Bronfenbrenner (2005) recommends that studies using his bio-ecological model should do so using a longitudinal approach. This is the only way to truly establish whether or not the developmental objectives that are being observed have been achieved. The same argument can be applied to behavioural changes. Doctoral research programmes are such that long-term longitudinal studies are not appropriate.

As it stands the current data collection phase of this study has already taken eighteen months, extending it for a minimum of another year by reviewing the progress of certain individuals in their behaviour changes would have jeopardised my ability to complete the PhD due to funding limitations. Despite this limitation the study has achieved its objectives: changes to the time frame, would essentially alter the scope of the research project. This would mean a totally different design and new ethical approval. Notwithstanding this, future research should consider adopting a longitudinal approach.

8.17 The Use of a Structural Model.

Collins, Tapp and Pressley (2010) produced a model, which was simple to understand. This study chose to provide the final solution as a checklist. It was hoped that a similar structural model to Collins, Tapp and Pressley could be used as the final solution, unfortunately the complexity of dealing with the whole ecological environment has meant that compressing the solution into a simple graphical image was not possible.

The checklist provides an ideal mechanism to direct scholar and practitioners in delivering solutions related to the ecological theory. A diagram may require too much interpretation of the process.

8.18 Conclusion.

It should be apparent to the reader that there are a number of limitations associated with the study. It does however take a number of steps to bridge the gaps identified. By enlarge the study has achieved the majority of its objectives, I would also argue that the enhancement of the SEF has provided a contribution to the theory and knowledge of social marketing.

I appreciate the limitations of research scope when embarking on a PhD: the need for focus on an achievable goal is paramount. In hindsight however, I would now argue that it may have been better to have widen the sample size of individuals interviewed who were at risk of diabetes, i.e., not just include the members of Diabetes UK. These additional participants would have given the study a more complete picture of the problem.

Chapter 9: Conclusion and Recommendations.

9.1 Overview.

At the beginning of this thesis I highlighted the importance of Social Marketing and how it has become an significant way of encouraging positive behaviours amongst individuals and the society of which they are apart (Andreasen, 2002; Hastings, 2007 and Lefebvre, 2012). I also highlighted a key shortfall for the domain: it tended to focus on the individual and not the wider environmental effects (Collins, Tapp & Pressley, 2010; Helmig & Thaler, 2010; Rothschild, 1999, Wallack 1984 and Wallack et al., 1993). Readers will note that the issue was first raised in the eighties and has subsequently been revisited in every decade since, demonstrating a real quandary for the field.

Addressing wider environmental issues is a concern faced by many disciplines: scholars like Bronfenbrenner (1974, 1977, 2005) have been instrumental in providing guidance on tackling the problem with his Ecology Theory. Social marketers have now seen the opportunities it can provide and have started to utilise the theory. One such group is Collins, Tapp & Pressley (2010), they designed the Social Ecological Framework (SEF) using Bronfenbrenner's (1974, 1977) ecology theory as its main foundations. My main concern with their approach was the use of Bronfenbrenner's earlier models. As Tudge et al. (2009) stated, there is nothing wrong with such an approach, however I felt that Bronfenbrenner's (2005) developments would enhance the SEF and provide better guidance for scholars and practitioners alike.

This factor was the primary driver for undertaking the doctoral thesis. I was also a practising 'social marketer' for many years working mainly in the health arena. This was the catalyst for using Diabetes UK as my case study. I am satisfied that my doctoral objectives were principally achieved.

9.2 Objectives Revisited.

The primary objective was to demonstrate to scholars and practitioners how the SEF could be enhanced by incorporating the Person, Process Context and Time (PPCT) model as described in Bronfenbrenner's bio-ecological theory. The results were phased into each element of the PPCT model, unsurprisingly the first showed that individuals are all different in terms of their expectations and constricting factors: a concept familiar to all marketers using the segmentation process. Even though some may argue that the consideration of the 'Person' is already implicit within the SEF process, I have demonstrated that making it more explicit will remind researchers and practitioners that these different groups need to be catered for using alternative campaigns: making the SEF more relevant.

The second was attributed to campaigns, which I have classed as the process (or proximal process as it is formally known as). These campaigns were linked to the 'person', there was also a direct correlation to the 'context' (or the nested systems as used in the original SEF). My study identified that the 'process' could be classed as those drivers that helped facilitate the behaviour changes required by the social marketer. I have demonstrated that the adaption of Wilson's (1990) Product Definition Assessment can be used to design and develop campaigns that are targeted and specific to a given group. This would not only make the campaign more relevant to them, it should increase the chances of the individuals complying. I have also demonstrated how important it is to include an evaluation of the various stakeholders (other than the patients) involved in the process. The study demonstrated that social marketing cannot be done in isolation and traditional techniques are required to secure funding for the process.

The final element of my doctoral primary objectives focused on the influence of time. Current literature states that 'time' will play an important part in the development (and thus the behaviour change) of an individual (Bronfenbrenner, 2005). I had expected to see a marked difference in attitudes of those people who attended a half-day course to those who were engaged over six to eight weeks. This was because of the complexity associated to the required behaviour changes, which I had perceived, would take a while to assimilate. My results showed no conclusive differences between those people who attended

a short course and those who attended a long course. Based on this finding I am unable to accept Bronfenbrenner's (2005) proposition that an individual's development (and thus behaviour trait) is linked to time. On reflection I have argued that this may be in part due to the research method used: it appeared that most individuals interviewed were just happy they have been given a place on the course. They were unable to express an opinion about the impact of time on their ability assimilate the information being provided to them. It is now my belief that the only way to test the impact of time is to conduct a long term study of groups that have attended a variety of courses (in terms of length) and then assess their behaviour changes over that period.

In sum, the inclusion of the PPCT model to the SEF can enhance the model although the issue of time is inconclusive. Despite this, it gives social marketers perspicuous guidelines on how to develop programmes and campaigns. The PDA or as I have, for this context, named it the Campaign Development Assessment (CDA) is a useful way for researchers and practitioners to cultivate a model which is reflective of the market(s) they are seeking to target. The CVCA process helps the social marketers to identify those stakeholders who can help or hinder the campaign, allowing them to utilise tradition marketing techniques to address their concerns. The new enhanced SEF utilises a 'check list' approach to support those individuals seeking to use it.

There were three other questions that my thesis addressed: these were focused on the practical elements of the research. The first asked, 'are structured health education courses employed to support the management of diabetes successfully engaging patients in England?' I was unable to provide a definite answer, this was because 57% of the PCTs did not know what they delivered for Type I diabetes and 43% of the PCTs did not know what they delivered for Type II diabetes. Considering the management of diabetes accounts for 11% of NHS England's budget it is surprising of the lack of control. There may be an argument that the transition from PCT to CCG was a factor in not knowing the information but earlier research from the Health and Social Care Information Centre (HSCIC, 2015) yielded similar results. NICE (2004 & 2008) and the Department of Health (DOH, n.d.) have already established that structured education was key in the management of diabetes, so it is a concern that the PCTs are unable to comply.

The second question, understanding what patients and healthcare providers thought of structured health education courses may provide some insight as to why compliance was so poor. Those patients interviewed could all see the benefits of structured education, the complex nature of the disease meant that there were a range of behaviour changes that they need to comply with and guidance on those changes was key. It should be noted that not everyone was aware of the existence of these courses (they tended to be those who had been diagnosed many years ago). The underlying theme identified from the healthcare providers was, finances restricted their ability to promote the course. These same restrictions meant that their primary targets were those individuals who were newly diagnosed.

Some patients felt that their PCT had only provided them with a single 'inconvenient' option to attend, others stated that there were a variety of times (evenings, weekends or during the working week) to attend and some even had language specific courses. This demonstrated that there were inconsistencies amongst the PCTs in their delivery of such courses.

The final question addressed the argument that structured health education courses employed to support the management of diabetes need enhancing, it also demonstrated how it could be done for that particular case. The overall core theme identified from the interviews with the HCPs was 'finance limitations': it appeared that the department's budget was the one factor which dictated how many courses were provided, who would facilitate them, what days and times they would run and the length of the course.

I identified that there were too many different 'brands' attributed to structured diabetes education. This caused confusion amongst patients, I have also seen that certain PCTs were unable to promote the courses due to budget limitations. By having a core brand with a number of variants (i.e., language specific): all of NHS England would benefit. National social marketing campaigns could be developed that local PCTs could adapt. Awareness would increase amongst the public and there would be no wasting of resources on 'reinventing the wheel'. The central resource could develop language specific courses, there could even be a number of multi-lingual tutors that would support the delivery from Newcastle to Plymouth. This would help reduce the cost of the programme, more added value resources could also be added, like

a central electronic portal to reinforce the learning outcomes. The difficulty will be to overcome the 'political' problems that may exist in the various PCTs.

9.3 Theoretical Contribution.

I have answered Collins, Tapp & Pressley's (2010) call to action by building on their work and reinforcing its foundations. It addresses the concerns that social marketers tend to focus on the individual and not the wider environmental factors (Collins, Tapp & Pressley, 2010; Helmig & Thaler, 2010; Rothschild, 1999, Wallack 1984 and Wallack et al., 1993). This was first raised in the eighties, and has been revisited every decade since. I have also demonstrated how complex and multiple behavioural change requirements can be addressed in research. The inclusion of a value chain was split into two parts, the first focused on the diabetes health education course and the second on the research methodology (i.e., the need to work with clinicians in the research process).

9.4 Methodological Contributions and the Strengths of the Approach.

As highlighted in the literature, researchers have used a variety of methods to test ecological theory. The mixed method approach furnished me with the ability to test Bronfenbrenner's propositions and demonstrate its application with a live case. The approach also allowed me to examine the differences of a campaign across a wide geographical area. By using the diabetes case study I was able to differentiate and test two groups of people that were genetically different. As a non-clinician the ability to identify segments of sufficient numbers that would fit Bronfenbrenner's (2005) Bio-ecological profile would be very limiting. There was the option of designing a study that examined those individuals living with a physical disability against those who had none, but as my study demonstrated identify such a cohort was difficult.

Another strength of the research was that it focused on a programme that required multiple and complex behaviour changes. From the literature it is apparent to me that many scholars tend to focus on programmes that only require a single behaviour. My research demonstrates that social marketing

programmes should sit on a continuum of complexity: a concept first introduced by Hastings (2007).

9.5 Limitations of the Approach

The limitations of my research were more numerous. These were either identified during the risk analysis of the study (prior to beginning the actual research) or during the actual research itself. All possible steps were taken to mitigate them, there were however a number that I classed as acceptable, these were fully documented and included: the fact that the study only focused on the health category of social marketing. Even though I am not able to generalise my results to the other categories (Social, Environment and Health & Safety), I am of the opinion that my approach was robust and flexible enough to be adapted across the whole social marketing spectrum.

Some may argue that by not focusing on the ultimate behaviour change I have failed to embrace the true concept of social marketing. My argument for not doing so was based on the fact that many other social marketing scholars use models like the Theory of Planned Behaviour (Ajzen, 1985) and the Theory of Reasoned Action (Ajzen & Madden, 1986) which were also based on an intention to change behaviour: see Helmig & Thaler (2010) for the details of those theories and concepts used by social marketers.

My biggest disappointment was not being able to engage with either the BME community or those individuals who were long term unemployed (over 12 months). This paradox only goes to demonstrate the need to tailor the 'proximal process' (which I have now associated with the actual social marketing campaign or programme) if you are looking to engage with specific groups of people.

In section 9.4 (the strengths of the approach), I have bestowed the virtues of adopting the diabetes structured health education case study. There is a downside to using case studies, scholars like Gerring (2007), Hillebrand et al. (2001) and Steinmetz (2004) have stated that case studies in research cannot be generalised to other environments. My position however is the same as Chreim et al. (2007), they believe that research should be measured on its transferability and comparability. The work I have done demonstrates the

process and could easily be applied to other social marketing campaigns as it highlights in detail the steps a researcher / practitioner should take.

This issue of generalisation can also be attributed to the sampling method. Baker et al. (2013) would prefer scholars to use random samples in their research if they are going to generalise their findings. The reality of studies using human participants is such that randomising the sample is very difficult, particularly when there is a limited budget for the process (Frankel & Frankel, 1987). With that in mind, the use of the members from Diabetes UK was fully justified.

Even though my research began during a period change for the NHS (i.e., its transformation from PCTs to CCGs), in my opinion, the decision to focus on PCTs was an acceptable one because the research had a primary aim of demonstrating how it could enhance the SEF model. The fact that the example used was being replaced was irrelevant. There were a number of other limitations associated with my research, but I would class these all as minor ones as contingencies were implemented to overcome the shortfalls.

9.6 Recommendations for Research.

More work should be done on the influence of time in relation to the social marketing campaign or programme. Based on my findings, the new study should be a longitudinal one comparing the behavioural changes of a number of groups. Reviewing attitudes and intentions in this case would not be sufficient. Such a study would have to be cross-functional, using medical researchers as well as social marketing ones. The medical researchers would review the clinical changes in their conditions.

I would also like to see a variety of studies reviewing the wider stakeholder profile to establish their thoughts on the social marketing programme. These studies can be segregated into a number of distinct groups. The first could be with parents, carers and family. This would provide readers with an understanding of their input into the process. As it was identified during the patient participant interviews, family members play a big part in the process for certain segments. It is not clear what factors, if any, that social marketers should concentration on when engaging this group. More importantly should they be considered as part of the social marketing process. The same could be

said of the Department of Health and Government Ministers. Researchers could embark on discrete programmes for each group or focus on examining external stakeholders and combine both groups.

Studies looking specifically at engaging 'hard to reach' groups, i.e., the BME and /or those classed as 'long term unemployed' would be very interesting to analyse. I would envisage that such groups would have very different needs to those currently targeted.

A comparison of the management of structured diabetes health education programmes between the old PCTs and new CCGs would illustrate if the organisational changes within NHS England have had any impact on the engagement of patients or if such a change was purely superficial for this disease area.

Finally, further studies should be instigated using the enhanced SEF in other social marketing categories. This would demonstrate the 'transferability' of the enhanced SEF.

9.7 Recommendation for the Practitioner.

Practitioners need to be very clear which groups they are targeting, they should not rely on the traditional segment groups but embark on research to identify any nuances amongst their perceived target group that may have issues with the programmes that are being proposed.

9.8 Final Summary.

Even though I have adapted and enhanced Collins, Tapp & Pressley's (2010) Social Ecological Framework, I cannot say that it is complete, further research will be required to hone and test its application across many more case studies. I do however believe that I have successfully answered, Collins, Tapp & Pressley's call to action and provided significant contributions to the theory and knowledge of social marketing and practice. I also believe that the contribution to practice will have a high impact factor, particularly if I can work with Diabetes UK in instigating some change in the management of diabetes structured education in England.

List of References

- AA. (2010). 'Clunk Click' *The AA Seat Belt Report*. Retrieved 06/03, 2012 from https://www.theaa.com/public_affairs/reports/aa-seat-belt-report.pdf
- Abraham, C. S., Sheeran, P., Abrams, D. & Spears, R. (1994). Exploring teenagers' adaptive and maladaptive thinking in relation to the threat of HIV infection. *Psychology and Health, 9*, 253-272
- Ahn, S. H., Kim, H. K., Kim, K. M., Yoon, J. S., & Kwon, J. S. (2014). Development of Nutrition Education Program for Consumers to Reduce Sodium Intake Applying the Social Cognitive Theory: Based on Focus Group Interviews. *Korean Journal of Community Nutrition, 19*(4), 342-360.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational behavior and human decision processes, 50*, 179-211
- Ajzen, I. & Madden, T. J. (1986). Prediction of goal-directed behavior: Attitudes, intentions, and perceived behavioral control. *Journal of experimental social psychology, 22*, 453-474
- Akers, R. L. (1973). *Deviant behavior: A social learning approach*. California: Wadsworth Publishing Company.
- Alderfer, C. P. (1969). An empirical test of a new theory of human needs. *Organizational behavior and human performance, 4*, 142-175
- Alexander, J. & Schmidt, J. (1996). Social engineering: Genealogy of a concept. *Social engineering, 1-20*
- Allenby, B. R. & Graedel, T. (1993). *Industrial ecology*. Englewood Cliffs, NJ: Prentice-Hall.
- Altheide, D. L. & Johnson, J. M. (1994). *Criteria for assessing interpretive validity in qualitative research*. London: Sage Publications.
- AMA. (2003). *Definition of Marketing, American Marketing Association*. Retrieved 08/03, 2012 from <https://www.ama.org/aboutama/pages/definition-of-marketing.aspx>

List of References

- Andreasen, A. R. (1994). Social marketing: its definition and domain. *Journal of Public Policy & Marketing*, 108-114
- Andreasen, A. R. (1995). *Marketing social change: Changing Behavior to Promote Health, Social Development, and the Environment*. San Francisco: Jossey-Bass
- Andreasen, A. R. (2002). Marketing social marketing in the social change marketplace. *Journal of Public Policy & Marketing*, 3-13
- Andreasen, A. R. (2003). The Life Trajectory of Social Marketing Some Implications. *Marketing Theory*, 3, 293-303
- Andreasen, A. R. (2006). *Social marketing in the 21st century*. London: Sage
- Andreasen, A. R. (2012). Rethinking the relationship between social/nonprofit marketing and commercial marketing. *Journal of Public Policy & Marketing*, 31, 36-41
- Armitage, C. J. & Conner, M. (2001). Efficacy of the theory of planned behaviour: A meta-analytic review. *British journal of social psychology*, 40, 471-499
- Atlas, R. M. & Bartha, R. (1981). *Microbial ecology: fundamentals and applications*. New York: Addison-Wesley Publishing Company.
- Ayling, K., Brierley, S., Johnson, B., Heller, S., & Eiser, C. (2015). Efficacy of theory-based interventions for young people with type 1 diabetes: A systematic review and meta-analysis. *British journal of health psychology*, 20(2), 428-446.
- Bagozzi, R. P. (1975). Marketing as exchange. *The Journal of Marketing*, 32-39
- Bagozzi, R. P. (1978). Marketing as exchange: a theory of transactions in the marketplace. *American Behavioral Scientist*, 21, 535-556
- Baker, R., Brick, J. M., Bates, N. A., Battaglia, M., Couper, M. P., Dever, J. A., Gile, K. J. & Tourangeau, R. (2013). Summary Report of the AAPOR Task Force on Non-probability Sampling. *Journal of Survey Statistics and Methodology*, smt008
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall.

- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall, Inc
- Bandura, A. (1991). Social cognitive theory of self-regulation. *Organizational behavior and human decision processes*, 50, 248-287
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. London: Macmillan
- Barat, S. (2010). Market Segmentation Success-Making it Happen!. *Journal of Consumer Marketing*, 27, 86-87
- Barker, R. C. & Schoggen, P. (1973). *Qualities of community life*. San Francisco: Jossey-Bass
- Barker, R. G. & Wright, H. F. (1954). *Midwest and its children: The psychological ecology of an American town*. Englewood Cliffs, NJ: Prentice-Hall, Inc
- Barker, R. G. (1968). *Ecological psychology: Concepts and methods for studying the environment of human behaviour*. California: Stanford University Press.
- Bartels, R. (1951). Influences on the development of marketing thought, 1900-1923. *The journal of marketing*, 1-17
- Bartels, R. (1976). *The history of marketing thought*. Ohio: Publishing Horizons Columbus
- Bartels, R. (1988). *The History of Marketing Thought*, Columbus, OH: Publishing Horizons
- Basuroy, S., Mantrala, M. K. & Walters, R. G. (2001). The impact of category management on retailer prices and performance: Theory and evidence. *Journal of Marketing*, 65, 16-32
- Bayat, F., Shojaeezadeh, D., Baikpour, M., Heshmat, R., Baikpour, M., & Hosseini, M. (2013). The effects of education based on extended health belief model in type 2 diabetic patients: a randomized controlled trial. *J Diabetes Metab Disord*, 12(1), 45.
- BBC. (2014). *UK pledges £12m to help Calais tackle illegal migrants*. Retrieved 12/03, 2014 from <http://www.bbc.co.uk/news/uk-29294776>

List of References

- Beall, G. T. (2012). Social marketing at a critical turning point. *Journal of Social Marketing, 2*, 2-2
- Bearden, W. O. & Crockett, M. (1981). Self-monitoring, norms, and attitudes as influences on consumer complaining. *Journal of Business Research, 9*, 255-266
- Bechhofer, F. & Paterson, L. (2012). *Principles of research design in the social sciences*. London: Routledge
- Bennett, A. R. (1997). The five Vs-a buyer's perspective of the marketing mix. *Marketing Intelligence & Planning, 15*, 151-156
- Bennett, J. W. (1996). *Human ecology as human behavior: essays in environmental and development anthropology*. New Jersey: Transaction Publishers
- Bergner, R. M. (2011). What is behavior? And so what?. *New Ideas in Psychology, 29*, 147-155
- Blum, R. W., McNeely, C. & Nonnemaker, J. (2001). Vulnerability, risk, and protection. *Adolescent risk and vulnerability: Concepts and measurement*, 50-72
- Blythe, J. (2013). *Principles and practice of marketing*. London: Sage.
- Bookchin, M. (2007). *Social ecology and communalism*: Oakland: AK Press.
- Boothroyd, G., Dewhurst, P. & Knight, W. A. (2010). *Product design for manufacture and assembly*. Boca Raton, FL: CRC Press.
- Bopp, A. E. (2009). State Variations in Hospital Expenditures: An Ecological Approach. *International advances in economic research, 15*, 226-232
- Bovens, M. & Hart, P. (1998). *Understanding policy fiascos*. New Jersey: Transaction publishers
- Brady, O., Hay, S. & Horby, P. (2014). Scale up the supply of experimental Ebola drugs. *Nature, 512*, 233
- Braun, A., Sämann, A., Kubiak, T., Zieschang, T., Kloos, C., Müller, U. A., Oster, P., Wolf, G. & Schiel, R. (2008). Effects of metabolic control, patient

- education and initiation of insulin therapy on the quality of life of patients with type 2 diabetes mellitus. *Patient education and counseling*, 73, 50-59
- Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3, 77-101
- Brehm, J. & Rahn, W. (1997). Individual-level evidence for the causes and consequences of social capital. *American Journal of Political Science*, 999-1023
- Brewer, N. T. & Rimer, B. K. (2008). Perspectives on health behavior theories that focus on individuals. In K. Glanz, B. K. Rimer & K. Viswanath (Eds.), *Health Behavior and Health Education: Theory, Research, and Practice* (pp. 149). New York: John Wiley & Sons.
- Brim, O. G. (1975). Macro-Structural Influences on Child Development and the Need for Childhood Social Indicators. *American Journal of Orthopsychiatry*, 45, 516-524
- Bronfenbrenner, U. (1974). Developmental research, public policy, and the ecology of childhood. *Child development*, 1-5
- Bronfenbrenner, U. (1976). The experimental ecology of education. *Educational Researcher*, 5-15
- Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American psychologist*, 32, 513
- Bronfenbrenner, U. (1979). Contexts of child rearing: Problems and prospects. *American Psychologist*, 34, 844
- Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: Research perspectives. *Developmental psychology*, 22, 723
- Bronfenbrenner, U. (1993). Ecological models of human development. In M. Gauvain & M. Cole (Eds.), *Readings on the Development of Children* (pp. 37-43). New York: Freeman
- Bronfenbrenner, U. (2005). *Making human beings human: Bioecological perspectives on human development*. London: Sage

List of References

- Bronfenbrenner, U. & Ceci, S. J. (1993). *Heredity, environment, and the question "How?": A first approximation*. Washington: American Psychological Association.
- Bronfenbrenner, U. & Ceci, S. J. (1994). Nature-nuture reconceptualized in developmental perspective: A bioecological model. *Psychological review*, 101, 568
- Bronfenbrenner, U. & Morris, P. A. (1998). *The ecology of developmental processes*. New Jersey: John Wiley and Sons.
- Bruhn, J. G. (1974). Human ecology: A unifying science?. *Human Ecology*, 2, 105-125
- Bruner, G. C., Hensel, P. J. & James, K. E. (2001). *Marketing scales handbook*. Chicago: American Marketing Association.
- Bryman, A. (2012). *Social research methods*. New York: Oxford university press.
- Bryman, A. (2012). *Social research methods*. New York: Oxford university press.
- Campbell, D. T. & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological bulletin*, 56, 81
- Campbell, D. T. & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological bulletin*, 56, 81
- Carlson, N. R., & Buskist, W. (1997). *Stress and Health. Psychology the Science of Behavior, USA: Allyn and Bacon*.
- Carman, J. M. (1973). *On the universality of marketing*: Institute of Business and Economic Research. California: University of California
- Caulton, J. R. (2012). The development and use of the theory of erg: A literature review. *Emerging Leadership Journeys*, 5, 2-8
- Cavalli-Sforza, L. L. & Bodmer, W. F. (1971). *The genetics of human populations*. San Fransisco, California: W.H. Freeman

- Chapman, S., Astatke, H. & Ashburn, K. (2005). *The performance of social marketing interventions in developing countries: a systematic review*. Washington DC: Population Services International.
- Charles K. Atkin & Lawrence Wallack. (1990). *Mass communication and public health: Complexities and conflicts*. London: Sage.
- Cherington, P. T. (1920). *The elements of marketing*. London: Macmillan
- Chreim, S., Williams, B. B. & Hinings, C. B. (2007). Interlevel influences on the reconstruction of professional role identity. *Academy of Management Journal, 50*, 1515-1539
- Christopher, M., Payne, A., & Ballantyne, D. (1991). *Relationship marketing: bringing quality customer service and marketing together*. London: Butterworth-Heinemann.
- CIM. (n.d.). *Glossary*. Retrieved 01/28, 2015 from <http://www.cim.co.uk/Resources/JargonBuster.aspx>
- CMCD. (n.d.). *What is a chronic disease?*. Retrieved 05/04, 2015 from <http://cmcd.sph.umich.edu/what-is-chronic-disease.html>
- Cohen, D. A., Scribner, R. A. & Farley, T. A. (2000). A structural model of health behavior: a pragmatic approach to explain and influence health behaviors at the population level. *Preventive medicine, 30*, 146-154
- Cohen, J. (1992). A power primer. *Psychological bulletin, 112*, 155
- Cohen, J. (2013). *Statistical power analysis for the behavioral sciences*: London: Routledge Academic.
- Cole, F. L. (1988). Content analysis: process and application. *Clinical Nurse Specialist, 2*, 53-57
- Collins, K., Tapp, A. & Pressley, A. (2010). Social marketing and social influences: Using social ecology as a theoretical framework. *Journal of Marketing Management, 26*, 1181-1200
- Conde, J. G., De, S., Hall, R. W., Johansen, E., Meglan, D. & Peng, G. C. (2010). Telehealth innovations in health education and training. *Telemedicine and e-Health, 16*, 103-106

List of References

- Conduit, J. & Mavondo, F. T. (2001). How critical is internal customer orientation to market orientation?. *Journal of business research*, 51, 11-24
- Constantinides, E. (2006). The marketing mix revisited: towards the 21st century marketing. *Journal of marketing management*, 22, 407-438
- Corbin, J. & Strauss, A. (2008). *Basics of qualitative research*. Thousand Oaks, CA: Sage Publications.
- Crain, D. W. & Abraham, S. (2008). Using value-chain analysis to discover customers' strategic needs. *Strategy & Leadership*, 36, 29-39
- Cresswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage Publications.
- Creswell, J. W. & Clark, V. L. P. (2011). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Wiley Online Library
- Czinkota, M. R. (1994). A national export assistance policy for new and growing businesses. *Journal of International Marketing*, 91-101
- Dann, S. (2010). Redefining social marketing with contemporary commercial marketing definitions. *Journal of Business Research*, 63, 147-153
- Dann, S. (2010). Redefining social marketing with contemporary commercial marketing definitions. *Journal of Business Research*, 63, 147-153
- Darwin, C. (2009). *On the Origin of Species: By Means of Natural Selection*. Portland, OR: The Floating Press.
- Davies, W. & Brush, K. E. (1997). High-tech industry marketing: The elements of a sophisticated global strategy. *Industrial Marketing Management*, 26, 1-13
- Davies, M. J., Heller, S., Skinner, T. C., Campbell, M. J., Carey, M. E., Craddock, S., Dallosso, H. M., Daly, H., Doherty, Y., Eaton, S., Fox, C., Oliver, L., Rantell, K., Rayman, G., Khunti, K. & Diabetes Education and Self Management for Ongoing and Newly Diagnosed Collaborative. (2008). Effectiveness of the diabetes education and self management for ongoing and newly diagnosed (DESMOND) programme for people with newly diagnosed type 2 diabetes: cluster randomised controlled trial. *BMJ (Clinical research ed.)*, 336, 491-495

- Davis-Kean, P. E. (2005). The influence of parent education and family income on child achievement: the indirect role of parental expectations and the home environment. *Journal of family psychology, 19*, 294
- Dawson, P. (2011). *NHS reforms will exacerbate the postcode lottery of healthcare*. Retrieved 09/01, 2014 from <http://www.theguardian.com/society/2011/nov/22/nhs-reforms-postcode-lottery-healthcare>
- Day, P. (2013). *Is your lifespan more than a postcode lottery?* Retrieved 09/01, 2014 from <http://www.bbc.co.uk/news/health-25231081>
- Deakin, T., Cade, J., Williams, R. & Greenwood, D. (2006). Structured patient education: the Diabetes X-PERT Programme makes a difference. *Diabetic Medicine, 23*, 944-954
- Diabetes UK. (2014). *Improving the delivery of adult diabetes care through integration: sharing experience and learning*. Retrieved 01/02, 2015 from [https://www.diabetes.org.uk/Documents/About%20Us/What%20we%20say/Integrated%20diabetes%20care%20\(PDF,%20648KB\).pdf](https://www.diabetes.org.uk/Documents/About%20Us/What%20we%20say/Integrated%20diabetes%20care%20(PDF,%20648KB).pdf)
- Diabetes, U. (2013). *Balance magazine media info 2013*. Retrieved 08/13, 2013 from <https://www.diabetes.org.uk/Documents/Balance/Balance%20Media%20Pack%202013.pdf>
- Diabetes_UK. (2012). *State of the Nation 2012*. Retrieved 09/24, 2014 from <http://www.diabetes.org.uk/Documents/Reports/State-of-the-Nation-2012.pdf>
- Dibb and Marylyn Carrigan, Sally & Gordon, R. (2013). Unlocking the potential of upstream social marketing. *European Journal of Marketing, 47*, 1525-1547
- Dibb, S. (2014). Up, up and away: social marketing breaks free. *Journal of Marketing Management, 30*, 1159-1185
- Dibb, S. & Carrigan, M. (2013). Social marketing transformed: Kotler, Polonsky and Hastings reflect on social marketing in a period of social change. *European Journal of Marketing, 47*, 1376-1398

List of References

- Dickson, P. R. (1982). Person-situation: Segmentation's missing link. *The Journal of Marketing*, 56-64
- Dickson, P. R. & Ginter, J. L. (1987). Market segmentation, product differentiation, and marketing strategy. *The Journal of Marketing*, 1-10
- Dickson, P. R. & Ginter, J. L. (1987). Market segmentation, product differentiation, and marketing strategy. *The Journal of Marketing*, 1-10
- DiClemente, C. C. & Prochaska, J. O. (1998). *Toward a comprehensive, transtheoretical model of change: Stages of change and addictive behaviors*. New York: Plenum Press
- Didarloo, A. R., Shojaeizadeh, D., ASL, R. G., Habibzadeh, H., Niknami, S., & Pourali, R. (2012). Prediction of self-management behavior among Iranian women with type 2 diabetes: application of the theory of reasoned action along with self-efficacy (etra). *Iranian Red Crescent Medical Journal*, 14(2), 86.
- DoH. (2012). *What is Diabetes?* National Archives Retrieved 10/24, 2014 from http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/publication/sandstatistics/publications/publicationspolicyandguidance/browsable/DH_4899874
- DoH. (n.d.). *National Service Framework for Diabetes*. London: Department of Health.
- DoH & DUK. (2005). *Structured Patient Education in Diabetes - Report from the Patient Education Working Group*. London: Department of Health and Diabetes UK.
- Domegan, C. T. (2008). Social marketing: implications for contemporary marketing practices classification scheme. *Journal of business & industrial marketing*, 23, 135-141
- Donaldson, K. M., Ishii, K. & Sheppard, S. D. (2006). Customer value chain analysis. *Research in Engineering Design*, 16, 174-183
- Donovan, R. & Henley, N. (2000). *Principles and practice of social marketing: an international perspective*. Cambridge: Cambridge University Press.

- Donovan, R. J. & Henley, N. (2003). *Social marketing: Principles and practice*. Melbourne: IP communications.
- Douglas, J. M., O'Flaherty, C. A. & Snow, P. C. (2000). Measuring perception of communicative ability: The development and evaluation of the La Trobe Communication Questionnaire. *Aphasiology*, 14, 251-268
- Drew, P. (2005). Conversation analysis. In K. L. Fitch & R. E. Sanders (Eds.), *Handbook of Language and Social Interaction* (pp. 71-102). New Jersey: Lawrence Erlbaum Mahwah.
- Duncan, O. D. (1959). *Human ecology and population studies*. Chicago: Chicago Illinois Social Development Center.
- Dunn, W. N. (2003). *Public policy analysis: An introduction*. London: Prentice Hall.
- Eagle, L., Dahl, S., Hill, S., Bird, S., Spotswood, F. & Tapp, A. (2012). *Social marketing*. London: Pearson Education.
- Eagly, A. H. & Chaiken, S. (1993). *The psychology of attitudes*. San Diego, California: Harcourt Brace Jovanovich College Publishers.
- Easley, J. (1982). Naturalistic case studies exploring social-cognitive mechanisms, and some methodological issues in research on problems of teachers. *Journal of research in science teaching*, 19, 191-203
- Egan, A., M & Dinneen, S., F. (2014). What is diabetes. *Medicine*, 14, 680-681
- Ehrlich, P. R. & Roughgarden, J. (1987). *The science of ecology*. New York: Macmillan.
- Eider, G. H. (1974). *Children of the great depression: Social change in life experience*. . Chicago: Chicago Press
- Ekeh, P. P. (1974). *Social exchange theory: The two traditions*. London: Heinemann.
- Elder Jr, G. H. (1974). *Children of the Great Depression: Social change in life experience* . London: Westview Press.

List of References

- Elo, S. & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of advanced nursing*, 62, 107-115
- Enserink, M. (2014). Infectious diseases. Ebola drugs still stuck in lab. *Science (New York, N.Y.)*, 345, 364-365
- Equality_Act. (2010). *Equality Act 2010*. London: HMSO.
- ESRC. (2012). *ESRC Framework for Research Ethics (FRE) 2010*. Retrieved 01/03, 2014 from http://www.esrc.ac.uk/_images/framework-for-research-ethics-09-12_tcm8-4586.pdf
- ESRC. (n.d.). *What is impact?*. Retrieved 05/04, 2015 from <http://www.esrc.ac.uk/funding-and-guidance/impact-toolkit/what-how-and-why/what-is-research-impact.aspx>
- Evans, W. D., Blitstein, J., Hersey, J. C., Renaud, J. & Yaroch, A. L. (2008). Systematic review of public health branding. *Journal of health communication*, 13, 721-741
- Evans, W. D. (2006). How social marketing works in health care. *BMJ (Clinical research ed.)*, 332, 1207-1210
- Fenig, S., Levav, I., Kohn, R. & Yelin, N. (1993). Telephone vs face-to-face interviewing in a community psychiatric survey. *American Journal of Public Health*, 83, 896-898
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. London: Sage
- Fill, C., Hughes, G. & De Francesco, S. (2012). *Advertising: Strategy, Creativity and Media*. London: Financial Times/Prentice Hall.
- Fishbein, M. & Yzer, M. C. (2003). Using theory to design effective health behavior interventions. *Communication Theory*, 13, 164-183
- Flick, U. (2014). *An introduction to qualitative research*. London: Sage Publishing.
- Fontana, A. & Frey, J. (1994). The art of science. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 361-376). Thousand Oaks, CA: Sage

- Forster, V. (2014). *Cancer postcode lottery 'costs 6,000 lives a year'*. Retrieved 09/01, 2014 from <http://www.thetimes.co.uk/tto/health/news/article4176875.ece>
- Forsyth, T. (2013). *Critical political ecology: The politics of environmental science*. London: Routledge.
- Fowler, H. W. & Fowler, F. G. (2011). *The Concise Oxford Dictionary: The Classic First Edition*. Oxford: Oxford University Press.
- Fox, K. F. & Kotler, P. (1980). The marketing of social causes: The first 10 years. *The Journal of Marketing*, 24-33
- Frankel, M. R. & Frankel, L. R. (1987). Fifty years of survey sampling in the United States. *Public opinion quarterly*, S127-S138
- Freedman, B. (1995). *Environmental ecology: the ecological effects of pollution, disturbance, and other stresses*. Waltham, MA: Academic Press.
- Freedom of Information. (2000). *Chapter 36*. London: HMSO.
- French, J. & Blair-Stevens, C. (2006). *Social marketing national benchmark criteria*. London: National Social Marketing Centre.
- French, J. (2009). *Social marketing and public health: Theory and practice*. Oxford: Oxford University Press.
- French, J. (2011). Why nudging is not enough. *Journal of Social Marketing*, 1, 154-162
- French, J. & Blair-Stevens, C. (2007). *Big pocket guide: social marketing*. London: National Social Marketing Centre.
- Frieden, T. R. (2010). A framework for public health action: the health impact pyramid. *American Journal of Public Health*, 100, 590-595
- Gaston, A., & Prapavessis, H. (2014). Using a combined protection motivation theory and health action process approach intervention to promote exercise during pregnancy. *Journal of behavioral medicine*, 37(2), 173-184.
- Geense, W. W., van de Glind, Irene M, Visscher, T. L. & van Achterberg, T. (2013). Barriers, facilitators and attitudes influencing health promotion

List of References

- activities in general practice: an explorative pilot study. *BMC family practice*, 14, 20
- Gerring, J. (2007). The case study: what it is and what it does. In C. Boix & S. C. Stokes (Eds.), *The Oxford handbook of comparative politics* (pp. 90-122). New York: Oxford Handbooks Online
- Gibbert, M., Ruigrok, W. & Wicki, B. (2008). What passes as a rigorous case study?. *Strategic Management Journal*, 29, 1465-1474
- Gijzenberg, M. (2009). Timing is money. *EMAC Chronicle*, Vol 4 (2), 13-14
- Glanz, K., Rimer, B. K., Lewis, F. M. & Jossey-Bass, S. (2002). *Health behavior and health education: Theory. Research and Practice (3rd ed)* San Francisco: John Wiley and Sons.
- Glanz, K., Rimer, B. K. & Viswanath, K. (2008). *Health behavior and health education: theory, research, and practice*. New Jersey: Jossey-Bass.
- Goldberg, M. E. (1995). Social marketing: are we fiddling while Rome burns?. *Journal of Consumer Psychology*, 4, 347-370
- Gondoli, D. M., Corning, A. F., Blodgett Salafia, E. H., Bucchianeri, M. M. & Fitzsimmons, E. E. (2011). Heterosocial involvement, peer pressure for thinness, and body dissatisfaction among young adolescent girls. *Body Image*, 8, 143-148
- Gordon, R. (2011). Critical social marketing: definition, application and domain. *Journal of Social Marketing*, 1, 82-99
- Gordon, R. (2012). Re-thinking and re-tooling the social marketing mix. *Australasian Marketing Journal (AMJ)*, 20, 122-126
- Gordon, R. (2013). Unlocking the potential of upstream social marketing. *European Journal of Marketing*, 47, 1525-1547
- Gordon, R., McDermott, L., Stead, M. & Angus, K. (2006). The effectiveness of social marketing interventions for health improvement: what's the evidence?. *Public health*, 120, 1133-1139
- Gray, D. E. (2013). *Doing research in the real world*. London: Sage

- Gregson, J., Foerster, S. B., Orr, R., Jones, L., Benedict, J., Clarke, B., Hersey, J., Lewis, J. & Zotz, K. (2001). System, environmental, and policy changes: using the social-ecological model as a framework for evaluating nutrition education and social marketing programs with low-income audiences. *Journal of Nutrition Education, 33*, S4-S15
- Grier, S. & Bryant, C. A. (2005). Social marketing in public health. *Annu.Rev.Public Health, 26*, 319-339
- Grönroos, C. (1996). Relationship marketing: strategic and tactical implications. *Management decision, 34*(3), 5-14.
- Grusec, J. E. & Goodnow, J. J. (1994). Impact of parental discipline methods on the child's internalization of values: A reconceptualization of current points of view. *Developmental psychology, 30*, 4
- Guba, E. G. & Lincoln, Y. S. (1982). Epistemological and methodological bases of naturalistic inquiry. *ECTJ, 30*, 233-252
- Gummesson, E. (1997). Relationship marketing as a paradigm shift: some conclusions from the 30R approach. *Management decision, 35*(4), 267-272.
- Hair, J. F. (2010). *Multivariate data analysis*. New Jersey: Pearson.
- Hale, J. L., Householder, B. J. & Greene, K. L. (2002). The theory of reasoned action. In J. P. Dillard & M. W. Pfau (Eds.), *The Persuasion Handbook: Developments in Theory and Practice* (pp. 259-286). Thousand Oaks, CA: Sage.
- Hales, S. D. (2001). Lynch's Metaphysical Pluralism. *Philosophy and Phenomenological Research, 63*, 699-709
- Hansen, W. B. & Graham, J. W. (1991). Preventing alcohol, marijuana, and cigarette use among adolescents: Peer pressure resistance training versus establishing conservative norms. *Preventive medicine, 20*, 414-430
- Harding, M. (2014) Care.data - *Sharing Your Information*. Patient Info. Retrieved 07/04/2016 from <http://patient.info/health/caredata-sharing-your-information>

List of References

- Harrison, A. W., Rainer Jr, R. K., Hochwarter, W. A. & Thompson, K. R. (1997). Testing the Self-Efficacy—Performance Linkage of Social—Cognitive Theory. *The Journal of social psychology, 137*, 79-87
- Harrison, D. & Easton, G. (2004). Temporally embedded case comparison in industrial marketing research. *Critical realist applications in organisation and management studies*, 194-210
- Harvey, C. D. (1988). Telephone Survey Techniques. *Canadian Home Economics Journal, 38*, 30-35
- Hastings, G. & Lowry, R. (1994). Fluoridation--a time for hope, a time for action. *British dental journal, 177*, 273-274
- Hastings, G. & Haywood, A. J. (1994). Social marketing: a critical response. *Health promotion international, 9*, 59-63
- Hastings, G. (2003). Competition in social marketing. *Social Marketing Quarterly, 9*, 6-10
- Hastings, G. (2003). Relational paradigms in social marketing. *Journal of Macromarketing, 23*, 6-15
- Hastings, G. (2007). *Social marketing: Why should the devil have all the best tunes?* Oxford: Butterworth-Heinemann.
- Hastings, G. (2012). The marketing matrix. *Journal of Social Marketing, 2*, 222-226
- Hastings, G. & Angus, K. (2011). When is social marketing not social marketing?. *Journal of Social Marketing, 1*, 45-53
- Hastings, G. & Donovan, R. J. (2002). International initiatives: Introduction and overview. *Social Marketing Quarterly, 8*, 3-5
- Hastings, G. & Saren, M. (2003). The critical contribution of social marketing theory and application. *Marketing theory, 3*, 305-322
- Hastings, G. B., Stead, M., Margaret, W., Lowry, R., MacFadyen, L., McVey, D., Owen, L. & Tones, K. (1998). Using the media to tackle the health divide: future directions. *Social Marketing Quarterly, 4*(3), 42-67.

- Helmig, B. & Thaler, J. (2010). On the effectiveness of social marketing—what do we really know?. *Journal of Nonprofit & Public Sector Marketing*, 22, 264-287
- Hepple, B. (2010). The new single equality act in Britain. *The Equal Rights Review*, 5, 11-24
- Higgins, J. P. & Green, S. (2008). *Cochrane handbook for systematic reviews of interventions*. London: Wiley Online Library.
- Hill, R. (2001). The marketing concept and health promotion: A survey and analysis of recent health promotion literature. *Social Marketing Quarterly*, 7, 29-53
- Hillebrand, B., Kok, R. A. & Biemans, W. G. (2001). Theory-testing using case studies: a comment on Johnston, Leach, and Liu. *Industrial Marketing Management*, 30, 651-657
- HM R+C. (2012). *Pension schemes*. Retrieved 08/09, 2012 from <http://www.hmrc.gov.uk/pensionschemes/>
- Hoek, J. & Jones, S. C. (2011). Regulation, public health and social marketing: a behaviour change trinity. *Journal of Social Marketing*, 1, 32-44
- Hoffmeyer-Zlotnik, J. H. & Warner, U. (2014). Harmonising Demographic and Socio-Economic Variables. In *Harmonising Demographic and Socio-Economic Variables for Cross-National Comparative Survey Research* (pp. 1-5). New York: Springer.
- Hogwood, B. W. & Gunn, L. A. (1984). *Policy analysis for the real world*. Oxford: University Press Oxford
- Hovland, C. I., Janis, I. L. & Kelley, H. H. (1953). Communication and persuasion; psychological studies of opinion change.
- HSCIC. (2006). *Health Survey for England 2004: health of ethnic minorities, 2006*. Retrieved 08/12, 2014 from Health Survey for England 2004: health of ethnic minorities, 2006
- HSCIC. (2015). *National Diabetes Audit 2012–2013. Report 2: Complications and Mortality*. Retrieved 05/15, 2015 from

List of References

<http://www.hscic.gov.uk/catalogue/PUB16496/nati-diab-audi-12-13-rep2.pdf>

- HSE. (2011). *Reducing health risks from the use of ultraviolet, (UV), tanning equipment*. Retrieved 06/03, 2012 from www.hse.gov.uk/pubns/indg209.pdf
- Hsieh, H. F. & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative health research, 15*, 1277-1288
- Huang, G. Q. (1996). *Design for X: concurrent engineering imperatives*. New York: Springer.
- Huberman, A. M. & Miles, M. B. (1994). *Data management and analysis methods*. London: Sage Publications.
- IDF. (2014). *Health Expenditure Estimates*. Retrieved 02/15, 2014 from <http://www.idf.org/atlasmap/atlasmap?indicator=i1&date=2014>
- Ishii, K. (2001). *Customer value chain analysis (CVCA)*. ME317 dfM: product definition coursebook. California: Stanford University.
- Iwarsson, S. & Ståhl, A. (2003). Accessibility, usability and universal design-positioning and definition of concepts describing person-environment relationships. *Disability & Rehabilitation, 25*, 57-66
- Izham, M. I., Arafat, Y., & Awaisu, A. (2015). Using the Transtheoretical Model to Enhance Self-management Activities in Type 2 Diabetic Patients: A Systematic Review.
- Jalilian, F., Motlagh, F. Z., Solhi, M., & Gharibnavaz, H. (2014). Effectiveness of self-management promotion educational program among diabetic patients based on health belief model. *Journal of education and health promotion, 3*.
- Janz, N. K. & Becker, M. H. (1984). The health belief model: A decade later. *Health Education & Behavior, 11*, 1-47
- Janz, N., Champion, V. & Strecher, V. (2002). The health belief model , Health behavior and health education (pp. 45-66)
- Jessor, R. (1992). Risk behavior in adolescence: A psychosocial framework for understanding and action. *Developmental review, 12*, 374-390

- Johnson, R. B., Onwuegbuzie, A. J. & Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of mixed methods research*, 1, 112-133
- Jones, N. B. (1974). *Ethological studies of child behaviour*: CUP Archive
- Justice. (2012). *Procedural guidance for freedom of information*. Retrieved 10/12, 2013 from <https://www.justice.gov.uk/information-access-rights/foi-guidance-for-practitioners/procedural-guidance>
- Katz, E. (1957). The two-step flow of communication: An up-to-date report on an hypothesis. *Public opinion quarterly*, 21, 61-78
- Kelley, S. W. (1992). Developing customer orientation among service employees. *Journal of the Academy of Marketing Science*, 20, 27-36
- Kennedy, A. & Parsons, A. (2012). Macro-social marketing and social engineering: a systems approach. *Journal of Social Marketing*, 2, 37-51
- Kenrick, D. T., Griskevicius, V., Neuberg, S. L. & Schaller, M. (2010). Renovating the Pyramid of Needs: Contemporary Extensions Built Upon Ancient Foundations. *Perspectives on psychological science : a journal of the Association for Psychological Science*, 5, 292-314
- Kim, D. H. (1998). The link between individual and organizational learning. *The strategic management of intellectual capital*, 41-62
- Kish, L. (1965). *Survey sampling*. New York: Wiley.
- Kotler, P. & Levy, S. J. (1969). Broadening the concept of marketing. *The Journal of Marketing*, 10-15
- Kotler, P., Roberto, N. & Lee, N. R. (2002). *Social marketing: Improving the quality of life*. London: Sage.
- Kotler, P. & Zaltman, G. (1971). Social marketing: an approach to planned social change. *The Journal of Marketing*, 3-12
- Kotler, P. & Keller, K. L. (2006). *Marketing Insight: Experiential Marketing. Marketing Management, 12th edition, Pearson Education, Inc., New Jersey*

List of References

- Kraft, P., Sutton, S. R. & Reynolds, H. M. (1999). The transtheoretical model of behaviour change: Are the stages qualitatively different?. *Psychology & Health, 14*, 433-450
- Kram, K. E. & Isabella, L. A. (1985). Mentoring alternatives: The role of peer relationships in career development. *Academy of management Journal, 28*, 110-132
- Kübler-Ross, E. (1997). *On death and dying*. New York: Macmillan Publishing.
- Laforet, S. (2014). Managing brand portfolios: audit of leading grocery supplier brands 2004 to 2012. *Journal of Strategic Marketing, 1-18*
- Langer, E. J. (1975). The illusion of control. *Journal of personality and social psychology, 32*, 311
- Lautenborn, R. (1990). *New marketing litany: 4 P's Passe; c-words take over Advertising Age*. Detroit: Crain Communications.
- Lawther, S. & Lowry, R. (1995). Social Marketing and Behavior Change among Professionals. *Social Marketing Quarterly, 2*, 10-11
- Lazarsfeld, P. F., Berelson, B. & Gaudet, H. (1968). *The peoples choice: how the voter makes up his mind in a presidential campaign*. New York: Columbia University Press.
- Lazarus, R. S., Deese, J. & Osler, S. F. (1952). The effects of psychological stress upon performance. *Psychological bulletin, 49*, 293
- Lazer, W. & Kelley, E. J. (1973). *Social marketing: Perspectives and viewpoints*: RD Irwin
- Lee, J. A. & Mundial, B. (1985). *The environment, public health, and human ecology: Considerations for economic development*: World Bank
- Lefebvre, R. C. (2011). An integrative model for social marketing. *Journal of Social Marketing, 1*, 54-72
- Lefebvre, R. C. (2012). Transformative social marketing: co-creating the social marketing discipline and brand. *Journal of Social Marketing, 2*, 130-137

- Lefebvre, R. C. (2012). Transformative social marketing: co-creating the social marketing discipline and brand. *Journal of Social Marketing, 2*, 118-129
- Lefebvre, R. C. (2012). Transformative social marketing: co-creating the social marketing discipline and brand. *Journal of Social Marketing, 2*, 118-129
- Lefebvre, R. C. & Flora, J. A. (1988). Social marketing and public health intervention. *Health Education & Behavior, 15*, 299-315
- Lerner, M. J. (1977). The justice motive: Some hypotheses as to its origins and forms¹. *Journal of personality, 45*, 1-52
- Lewin, K. (1935). *A dynamic theory of personality*. New York: McGraw-Hill.
- Lin, S. P., & Wang, M. J. (2013). Applying the transtheoretical model to investigate behavioural change in type 2 diabetic patients. *Health Education Journal, 72*(2), 189-202.
- Lincoln, Y. S. & Guba, E. G. (1994). Competing paradigms in qualitative research. *Handbook of qualitative research, 105-117*
- Lindridge, A., MacGaskill, S., Ginch, W. & Eadie, D. (2013). Applying an ecological model to social marketing communications. *The European Journal of Marketing, (In press)*
- Ling, J. C., Franklin, B. A., Lindsteadt, J. F. & Gearon, S. A. (1992). Social marketing: its place in public health. *Annual Review of Public Health, 13*, 341-362
- Liu, J., Davidson, E., Bhopal, R., White, M., Johnson, M., Netto, G., Deverill, M. & Sheikh, A. (2012). Summarising evidence on effective health promotion interventions from guidelines and systematic reviews
- Lockwood, G., Henderson, C. & Thornicroft, G. (2012). The Equality Act 2010 and mental health. *The British journal of psychiatry : the journal of mental science, 200*, 182-183
- Lofgren, G. Lumley, T. & O'Boyle, A. (2008). *Critical Masses, Social campaigning, A guide for donors and funders*. New York: New Philanthropy Capital

List of References

- Lorig, K. R., Sobel, D. S., Stewart, A. L., Brown Jr, B. W., Bandura, A., Ritter, P., Gonzalez, V. M., Laurent, D. D. & Holman, H. R. (1999). Evidence suggesting that a chronic disease self-management program can improve health status while reducing hospitalization: a randomized trial. *Medical care*, 37, 5-14
- Loveman, E., Frampton, G. K. & Clegg, A. (2008). The clinical effectiveness of diabetes education models for Type 2 diabetes: a systematic review. *Health technology assessment*, 12, 1-136
- Lowe, J., Linjawi, S., Mensch, M., James, K. & Attia, J. (2008). Flexible eating and flexible insulin dosing in patients with diabetes: Results of an intensive self-management course. *Diabetes research and clinical practice*, 80, 439-443
- Luca, N. R. & Suggs, L. S. (2010). Strategies for the social marketing mix: a systematic review. *Social Marketing Quarterly*, 16, 122-149
- Luca, N. R. & Suggs, L. S. (2012). Theory and model use in social marketing health interventions. *Journal of health communication*, 1-21
- Luck, D. J. (1969). Broadening the concept of marketing. Too far. *The Journal of Marketing*, 53-55
- Luck, D. J. (1974). Social marketing: Confusion compounded. *The Journal of Marketing*, 70-72
- Lusch, R. F., Vargo, S. L. & Tanniru, M. (2010). Service, value networks and learning. *Journal of the academy of marketing science*, 38, 19-31
- Lynch, M. & Batal, M. (2011). Factors Influencing Childcare Providers' Food and Mealtime Decisions: An Ecological Approach. *Child care in Practice*, 17, 185-203
- Ma, Y., Ailawadi, K. L., & Grewal, D. (2013). Soda versus cereal and sugar versus fat: drivers of healthful food intake and the impact of diabetes diagnosis. *Journal of Marketing*, 77(3), 101-120.
- MacFadyen, L., Stead, M. & Hastings, G. (1999). A synopsis of social marketing. *Institute for Social Marketing*

- MacInnis, D. J., Moorman, C. & Jaworski, B. J. (1991). Enhancing and measuring consumers' motivation, opportunity, and ability to process brand information from ads. *The Journal of Marketing*, 32-53
- Maddux, J. E. & Rogers, R. W. (1983). Protection motivation and self-efficacy: A revised theory of fear appeals and attitude change. *Journal of experimental social psychology*, 19, 469-479
- Madill, J., O'Reilly, N. & Nadeau, J. (2014). Financing Social Marketing Programs Through Sponsorship: Implications for Evaluation. *Journal of Social Marketing*, 4, 3-3
- Mahajan, V. & Muller, E. (1986). Advertising pulsing policies for generating awareness for new products. *Marketing Science*, 5, 89-106
- Maibach, E. W., Rothschild, M. L. & Novelli, W. D. (2002). Social marketing. *Health behavior and health education: theory, research and practice*. 3rd ed. San Francisco (CA): Jossey-Bass, 437-461
- Marques, S., & Domegan, C. (2011). Relationship marketing and social marketing. *The SAGE Handbook of Social Marketing*. London: SAGE Publications, 44-60. (need to change this is a chapter in a book)
- Marsden, A. (2001). Why Categories Can Breathe Life into Marketing. *Marketing*, 22-22
- Maslow, A. H. (1943). A theory of human motivation. *Psychological review*, 50, 370
- Mason, M. (2010). Sample Size and Saturation in PhD Studies Using Qualitative Interviews. *In Forum Qualitative Sozialforschung/Forum: Qualitative Social Research*, Vol.11 no 3
- Masterson, R. & Pickton, D. (2010). *Marketing: an introduction*. London: SAGE Publications.
- McDermott, L., Stead, M. & Hastings, G. (2005). What is and what is not social marketing: the challenge of reviewing the evidence. *Journal of Marketing Management*, 21, 545-553

List of References

- McDermott, R. J. (2000). Social marketing: a tool for health education. *American Journal of Health Behavior, 24*, 6-10
- McGrew, W. C. (1972). *An ethological study of children's behaviour*. New York: Academic Press
- McKenzie-Mohr, D. (2011). *Fostering sustainable behavior: An introduction to community-based social marketing*: London: New Society Pub.
- McLaren, L., McIntyre, L. & Kirkpatrick, S. (2010). Rose's population strategy of prevention need not increase social inequalities in health. *International journal of epidemiology, 39*, 372-377
- McLeroy, K. R., Bibeau, D., Steckler, A. & Glanz, K. (1988). An ecological perspective on health promotion programs. *Health Education & Behavior, 15*, 351-377
- McLoyd, V. C. (1990). The impact of economic hardship on black families and children: Psychological distress, parenting, and socioemotional development. *Child development, 61*, 311-346
- McMahon, L. (2002). The impact of social marketing on social engineering in economic restructuring. *Journal of Nonprofit & Public Sector Marketing, 9*, 75-84
- McNaughton, S. J. & Wolf, L. L. (1973). *General ecology*. York: Holt, Rinehart and Winston.
- Meadley, J., Pollard, R. & Wheeler, M. (2003). *Review of DFID approach to social marketing*. London: DFID Health Systems Resource Centre.
- Mesak, H. I. (1992). An aggregate advertising pulsing model with wearout effects. *Marketing Science, 11*, 310-326
- Miniard, P. W. & Cohen, J. B. (1981). An examination of the Fishbein-Ajzen behavioral-intentions model's concepts and measures. *Journal of experimental social psychology, 17*, 309-339
- Mitton, C., Dionne, F. & Donaldson, C. (2014). Managing Healthcare Budgets in Times of Austerity: The Role of Program Budgeting and Marginal Analysis. *Applied health economics and health policy, 12*, 95-102

- Monroe, K. B. (1976). The influence of price differences and brand familiarity on brand preferences. *Journal of Consumer Research*, 42-49
- Moos, R. H. (1980). *The social climate scales: An overview*. Santa Clara, CA: Consulting Psychologists Press
- MRS. (2014). *How to conduct effective market research*. Retrieved 06/11/2014, 2014 from <https://www.mrs.org.uk/article/item/1406>
- Mullard, A. (2014). Experimental Ebola drugs enter the limelight. *The Lancet*, 384, 649
- MURRAY, G. G. & DOUGLAS, R. R. (1988). Social Marketing in the Alcohol Policy Arena★. *British journal of addiction*, 83, 505-511
- Naik, P. A., Mantrala, M. K. & Sawyer, A. G. (1998). Planning media schedules in the presence of dynamic advertising quality. *Marketing Science*, 17, 214-235
- National Archives. (2011). *QIPP Workstreams*. Retrieved 06/03, 2012 from http://webarchive.nationalarchives.gov.uk/+/www.dh.gov.uk/en/Healthcare/Qualityandproductivity/QIPPworkstreams/DH_115448
- Navarro, M., Perez-Ayala, A., Guionnet, A., Perez-Molina, J., Navaza, B., Estévez, L., Norman, F., Flores-Chávez, M. & Lopez-Velez, R. (2011). Targeted screening and health education for Chagas disease tailored to at-risk migrants in Spain, 2007 to 2010. *Chagas disease in Europe*, 41
- Naylor, C. (2012). *CCGs and PCTs - not so different after all?*. Retrieved 07/15, 2014 from <http://www.kingsfund.org.uk/blog/2012/07/ccgs-and-pcts-not-so-different-after-all>
- Neher, A. (1991). Maslow's Theory of Motivation A Critique. *Journal of Humanistic Psychology*, 31, 89-112
- Nerlove, M. & Arrow, K. J. (1962). Optimal advertising policy under dynamic conditions. *Economica*, 129-142
- Netto, G., Bhopal, R., Lederle, N., Khatoon, J. & Jackson, A. (2010). How can health promotion interventions be adapted for minority ethnic communities? Five principles for guiding the development of behavioural interventions. *Health promotion international*, 25, 248-257

List of References

- NHS. (2013). *Safeguarding Vulnerable People in the Reformed NHS. Accountability and Assurance Framework*. Retrieved 06/11/2014, 2014 from <http://www.england.nhs.uk/wp-content/uploads/2013/03/safeguarding-vulnerable-people.pdf>
- NHS. (n.d.). *Change for Life*. Retrieved 07/07, 2012 from <http://www.nhs.uk/Change4Life/Pages/what-is-change-for-life.aspx>
- NHS Act (2006), *National Health Service Act 2006*. Retrieved 07/04, 2016 from <http://www.legislation.gov.uk/ukpga/2006/41/contents>
- NHS Choices. (2011). *Why 5 a day?*. Retrieved 07/20, 2012 from <http://www.nhs.uk/Livewell/5ADAY/Pages/Why5ADAY.aspx>
- NHS Choices. (2013). *The NHS structure explained*. Retrieved 09/23, 2014 from <http://www.nhs.uk/NHSEngland/thenhs/about/Pages/nhsstructure.aspx>
- NHS Choices b. (2013). *NHS authorities and trusts*. Retrieved 09/10, 2014 from <http://www.nhs.uk/NHSEngland/thenhs/about/Pages/authoritiesandtrusts.aspx>
- NHS Choices C. (2014). *Living with type 2 diabetes*. Retrieved 07/23, 2014 from <http://www.nhs.uk/Conditions/diabetes-type2/Pages/living-with.aspx>
- NHS England. (2006). *Strategic Health Authority Configurations*. Retrieved 09/12, 2014 from <http://www.nhs.uk/NHSEngland/aboutnhs/Documents/MapofSHAsFeb09.pdf>
- NHS England. (2014). *Action on Diabetes*. London: Medical Directorate, NHS England
- NHS_Employer. (2012). *Quality and Outcomes Framework for 2012/13: Guidance for PCOs and practices*. Retrieved 12/10, 2013 from <http://www.nhsemployers.org/~media/Employers/Documents/Primary%20care%20contracts/QOF/2012-13/Quality%20and%20Outcomes%20Framework%20for%202012-13%20-%20Guidance%20for%20PCOs%20and%20Practices.pdf>

- Niblett, G. R. (2005). Stretching the limits of social marketing partnerships, upstream and downstream: setting the context for the 10th innovations in social marketing conference. *Social Marketing Quarterly*, 11, 9-15
- NICE. (2004). *Type 1 diabetes: Diagnosis and management of type 1 diabetes in children, young people and adults*. Retrieved 06/15, 2012 from <https://www.nice.org.uk/guidance/cg15>
- NICE. (2007). *Behaviour change: the principles for effective interventions*. Retrieved 08/01, 2015 from <https://www.nice.org.uk/guidance/ph6/resources/guidance-behaviour-change-the-principles-for-effective-interventions-pdf>
- NICE. (2008). *Type 2 diabetes NICE clinical guideline 66*. London: HMSO.
- NICE. (2011). *Type 2 diabetes (partially updated by CG87) (CG66)*. Retrieved 06/15, 2012 from <http://www.nice.org.uk/guidance/cg66>
- NICE. (2014). Who we are. *The NICE Website* Retrieved 06/15, 2012 from <http://www.nice.org.uk/whoweare>
- NICE. (n.d.). *Evidence Search*. Retrieved 04/23, 2015 from <https://www.evidence.nhs.uk/Search?q=structured+education+and+diabetes>
- NIH. (2013). *Your guide to diabetes; Type 1 and Type 2*. London: NIH Publications.
- Noble, G. I. (2006). Maintaining social marketing's relevance: a dualistic approach. In Ali, M. & van Dessel, M (Eds) *Proceedings of the Australian and New Zealand Marketing Academy Conference* (pp 1-7), Brisban, Australia: Australian and New Zealand Marketing Academy.
- Norwich, B. & Rovoli, I. (1993). Affective factors and learning behaviour in secondary school mathematics and English lessons for average and low attainers. *British Journal of Educational Psychology*, 63, 308-321
- NSMC. (n.d.). *Social marketing national benchmark criteria*. Retrieved 11/22, 2013 from <http://www.thensmc.com/sites/default/files/benchmark-criteria-090910.pdf>

List of References

- Nutbeam, D., Harris, E. & Wise, W. (2010). *Theory in a nutshell: a practical guide to health promotion theories*. London: McGraw-Hill.
- O2. (n.d.). *Help and Support*. Retrieved 08/17, 2014 from <http://www.o2.co.uk/help/phones-and-devices/demystifying-data#qs>
- O'Donnell, M. P. (1989). Definition of health promotion: part III: expanding the definition. *American journal of health promotion*, 3, 5-5
- Odum, E. P. (1964). The new ecology. *Bioscience*, 14, 14-16
- ONS. (2010). *SOC2010 volume 3: the National Statistics Socio-economic classification (NS-SEC rebased on SOC2010)*. Retrieved 04/17, 2015 from <http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/soc2010/soc2010-volume-3-ns-sec--rebased-on-soc2010--user-manual/index.html>
- Opel, D. J., Diekema, D. S., Lee, N. R. & Marcuse, E. K. (2009). Social marketing as a strategy to increase immunization rates. *Archives of Pediatrics & Adolescent Medicine*, 163, 432
- Orleans, C. T. (2008). *Promoting the maintenance of health behavior change: recommendations for the next generation of research and practice*. Washington DC: American Psychological Association.
- Ozer, E. M. & Bandura, A. (1990). Mechanisms governing empowerment effects: a self-efficacy analysis. *Journal of personality and social psychology*, 58, 472
- Park, C. W. & Mittal, B. (1985). A theory of involvement in consumer behavior: Problems and issues. *Research in consumer behavior*, 1
- Peattie, S. & Peattie, K. (2003). Ready to fly solo? Reducing social marketing's dependence on commercial marketing theory. *Marketing theory*, 3, 365-385
- Pechmann, C. & Slater, M. D. (2013). 10 Social marketing messages that may motivate irresponsible consumption behavior. *Inside consumption: Consumer motives, goals, and desires*, 185

- Pellino, T. A. (1997). Relationships between patient attitudes, subjective norms, perceived control, and analgesic use following elective orthopedic surgery. *Research in nursing & health, 20*, 97-105
- Perese, L., Bellringer, M. & Abbott, M. (2005). *Literature review to inform social marketing objectives and approaches, and behaviour change indicators, to prevent and minimise gambling harm*. Auckland: Gambling Research Centre, Auckland University of Technology.
- Petty, R. E. & Cacioppo, J. T. (1986). The elaboration likelihood model of persuasion. *Advances in experimental social psychology, 19*, 123-205
- Peyman, N., Mahdizadeh, M., Taghipour, A., & Esmaily, H. (2013). Using of social cognitive theory: predictors of physical activity among women with diabetestype 2. *Journal of Research & Health, 3*(2), 345-354.
- Plotnikoff, R. C., Lippke, S., Courneya, K. S., Birkett, N., & Sigal, R. J. (2008). Physical activity and social cognitive theory: a test in a population sample of adults with type 1 or type 2 diabetes. *Applied Psychology, 57*(4), 628-643.
- Plotnikoff, R. C., Trinh, L., Courneya, K. S., Karunamuni, N., & Sigal, R. J. (2009). Predictors of aerobic physical activity and resistance training among Canadian adults with type 2 diabetes: An application of the Protection Motivation Theory. *Psychology of Sport and Exercise, 10*(3), 320-328.
- Polonsky, W. H., & Fisher, L. (2015). When does personalized feedback make a difference? A narrative review of recent findings and their implications for promoting better diabetes self-care. *Current diabetes reports, 15*(8), 1-10.
- Pope, C. & Mays, N. (1995). Qualitative research: rigour and qualitative research. *Br Med J, 311*, 109-112
- Posten, H. O. (1984). Robustness of the two-sample t-test. In *Robustness of statistical methods and nonparametric statistics* (pp. 92-99). New Jersey: Springer.
- Prince, S. A., Adamo, K. B., Hamel, M. E., Hardt, J., Connor Gorber, S. & Tremblay, M. (2008). A comparison of direct versus self-report measures for

List of References

- assessing physical activity in adults: a systematic review. *The international journal of behavioral nutrition and physical activity*, 5, 56-5868-5-56
- Prochaska, J. O. & DiClemente, C. C. (1982). Transtheoretical therapy: Toward a more integrative model of change. *Psychotherapy: Theory, Research & Practice*, 19, 276
- Prochaska, J. O., DiClemente, C. C. & Norcross, J. C. (1992). In search of how people change: applications to addictive behaviors. *American psychologist*, 47, 1102
- Prochaska, J. O., DiClemente, C. C. & Norcross, J. C. (1992). In search of how people change: applications to addictive behaviors. *American psychologist*, 47, 1102
- QSR. (n.d.). *Products*. Retrieved 08/15, 2013 from <http://www.qsrinternational.com/products.aspx>
- Rabinovich, A., Morton, T. & Postmes, T. (2010). Time perspective and attitude-behaviour consistency in future-oriented behaviours. *British Journal of Social Psychology*, 49, 69-89
- Reber, A. S. (1995). *The Penguin dictionary of psychology*. New York: Penguin Press.
- Recyclenowpartners. (2003). *Local Authority Case Studies*. Retrieved 08/02, 2012 from http://www.recyclenowpartners.org.uk/local_authorities/brand_in_action/recycle_for.html
- RefWorks. (n.d.). *About Us*. Retrieved 01/28, 2015 from https://www.refworks.com/content/about_us.asp
- Richard, L., Potvin, L. & Mansi, O. (1998). The ecological approach in health promotion programmes: the views of health promotion workers in Canada. *Health education journal*, 57, 160-173
- Richards, J. I. & Curran, C. M. (2002). Oracles on "advertising": Searching for a definition. *Journal of Advertising*, 31, 63-77

- Rogers, R. W. (1975). A Protection Motivation Theory of Fear Appeals and Attitude Change. *The Journal of psychology, 91*, 93-114
- Rorty, R. (1991). *Objectivity, relativism, and truth: philosophical papers*: Cambridge: Cambridge University Press.
- Rosa, E. M., & Tudge, J. (2013). Urie Bronfenbrenner's theory of human development: Its evolution from ecology to bioecology. *Journal of Family Theory & Review, 5*(4), 243-258.
- Rosenstock, I. M. (1974). The health belief model and preventive health behavior. *Health Education & Behavior, 2*, 354-386
- Rothschild, M. L. (1999). Carrots, sticks, and promises: a conceptual framework for the management of public health and social issue behaviors. *The Journal of Marketing, 24*-37
- Rothschild, M. L., Mastin, B. & Miller, T. W. (2006). Reducing alcohol-impaired driving crashes through the use of social marketing. *Accident Analysis & Prevention, 38*, 1218-1230
- Rubin, H. J. & Rubin, I. S. (2011). *Qualitative interviewing: The art of hearing data*. Thousand Oaks, CA: Sage Publications.
- Ryan, M. (2011). Improving reflective writing in higher education: A social semiotic perspective. *Teaching in Higher Education, 16*, 99-111
- Sadeghi, R., Rezaeian, M., Khanjani, N., & Iranpour, A. (2015). The Applied of Health Belief Model in Knowledge, Attitude and Practice in People Referred for Diabetes Screening Program: An Educational Trial. *Journal of Rafsanjan University of Medical Sciences, 13*(11), 1061-1072.
- SAHF. (n.d.). *Who we are*. Retrieved 09/15, 2014 from <http://www.sahf.org.uk/about-us/who-we-are>
- Sämman, A., Mühlhauser, I., Bender, R., Kloos, C. & Müller, U. (2005). Glycaemic control and severe hypoglycaemia following training in flexible, intensive insulin therapy to enable dietary freedom in people with type 1 diabetes: a prospective implementation study. *Diabetologia, 48*, 1965-1970

List of References

- Sandy, C. J., Gosling, S. D. & Durant, J. (2013). Predicting consumer behavior and media preferences: The comparative validity of personality traits and demographic variables. *Psychology & Marketing, 30*, 937-949
- Sasieni, M. W. (1989). Optimal advertising strategies. *Marketing Science, 8*, 358-370
- Scheiner, S. M. & Willig, M. R. (2008). A general theory of ecology. *Theoretical Ecology, 1*, 21-28
- Schmider, E., Ziegler, M., Danay, E., Beyer, L. & Bühner, M. (2010). Is it really robust? Reinvestigating the robustness of ANOVA against violations of the normal distribution assumption. *Methodology: European Journal of Research Methods for the Behavioral and Social Sciences, 6*, 147
- Schneider, B. (1987). The people make the place. *Personnel Psychology, 40*, 437-453
- Schon, D. (1983). *The reflective practitioner*. New York: Basic Books.
- Schuh, K. & Barab, S. (2008). Philosophical perspectives. In J. M. Spector, M. D. Merrill, J. V. Merrienboer & M. P. and Driscoll (Eds.), *Handbook of research on educational communications and technology* (pp. 67-82). New York: Lawrence Erlbaum Associates
- Schultz, D. E. (2001). Marketers: Bid farewell to strategy based on old 4Ps. *Marketing News, 35*, 7
- Schwarzer, R., Lippke, S., & Luszczynska, A. (2011). Mechanisms of health behavior change in persons with chronic illness or disability: the Health Action Process Approach (HAPA). *Rehabilitation psychology, 56*(3), 161.
- Shaw, A. (2011). Market segmentation and the impact of online media. *Journal of Medical Marketing: Device, Diagnostic and Pharmaceutical Marketing, 11*, 254-262
- Sheth, J. N., & Parvatiyar, A. (2000). *Handbook of relationship marketing*. Thousand Oaks, CA: Sage Publications.
- Sheth, J. N., & Parvatiyar, A. (2002). Evolving relationship marketing into a discipline. *Journal of Relationship Marketing, 1*(1), 3-16.

- Shizumu, K. (2003). *Symbiotic marketing strategy*. Tokyo: Souseisha Book Company.
- Sias, P. M. & Cahill, D. J. (1998). From coworkers to friends: The development of peer friendships in the workplace. *Western Journal of Communication (includes Communication Reports)*, 62, 273-299
- Simonds, S. (1976). Health education in the Mid-1970s: State of the Art. *Preventive Medicine*
- Simons-Morton, B. G., Ouimet, M. C., Chen, R., Klauer, S. G., Lee, S. E., Wang, J. & Dingus, T. A. (2012). Peer influence predicts speeding prevalence among teenage drivers. *Journal of Safety Research*, 43, 397-403
- Simpson, J. A. & Weiner, E. S. (1989). *The Oxford english dictionary*. Oxford: Clarendon Press.
- Skinner, T. C., Carey, M. E., Cradock, S., Daly, H., Davies, M. J., Doherty, Y., Heller, S., Khunti, K. & Oliver, L. (2006). Diabetes Education and Self-Management for Ongoing and Newly Diagnosed (DESMOND): process modelling of pilot study. *Patient education and counseling*, 64, 369-377
- Smith, W. R. (1956). Product differentiation and market segmentation as alternative marketing strategies. *The Journal of Marketing*, 3-8
- Snyder, L. B. & Hamilton, M. A. (2002). Meta-analysis of U.S. health campaign effects on behavior: emphasize enforcement, exposure, and new information, and beware the secular trend. In R. Hornik (Ed.), *Public health communication: evidence for behavior change* (pp. 357-383). New Jersey: Erlbaum.
- Sofaer, S. (1999). Qualitative methods: what are they and why use them?. *Health services research*, 34, 1101-1118
- Spencer, H. (1967). *The evolution of society: selections from Herbert Spencer's Principles of sociology*. Chicago: University of Chicago Press.
- Spotswood, F., French, J., Tapp, A. & Stead, M. (2012). Some reasonable but uncomfortable questions about social marketing. *Journal of Social Marketing*, 2, 163-175

List of References

- Spotswood, F. & Tapp, A. (2010). Socio cultural change—the key to social marketing success? A case study of increasing exercise in working class communities. *International Journal of Health Promotion and Education*, 48, 52-57
- St Leger, L. (2012). *Health promotion and health education in schools: Trends, effectiveness and possibilities*. Noble Park North, Vic: RACV.
- Stead, M., Gordon, R., Angus, K. & McDermott, L. (2007). A systematic review of social marketing effectiveness. *Health Education*, 107, 126-191
- Stead, M., Hastings, G. & McDermott, L. (2007). The meaning, effectiveness and future of social marketing. *Obesity reviews*, 8, 189-193
- Steinmetz, G. (2004). Odious comparisons: Incommensurability, the case study, and “small N's” in sociology. *Sociological Theory*, 22, 371-400
- Stiling, P. D. (1996). *Ecology: theories and applications*. Upper Saddle River, NJ: Prentice Hall.
- Stokols, D. (1992). Establishing and maintaining healthy environments: toward a social ecology of health promotion. *American Psychologist*, 47, 6
- Stokols, D. (1996). Translating social ecological theory into guidelines for community health promotion. *American journal of health promotion*, 10, 282-298
- Stokols, D., Grzywacz, J. G., McMahan, S. & Phillips, K. (2003). Increasing the health promotive capacity of human environments. *American Journal of Health Promotion*, 18, 4-13
- Sturges, J. E. & Hanrahan, K. J. (2004). Comparing telephone and face-to-face qualitative interviewing: a research note. *Qualitative Research*, 4, 107-118
- Sutton, S. M., Balch, G. I. & Lefebvre, R. C. (1995). Strategic questions for consumer-based health communications. *Public health reports (Washington, D.C.: 1974)*, 110, 725-733
- Sweat, M. D. & Denison, J. A. (1995). Reducing HIV incidence in developing countries with structural and environmental interventions. *Aids*, 9, S251-7

- Tay, L. & Diener, E. (2011). Needs and subjective well-being around the world. *Journal of personality and social psychology*, 101, 354
- Tellis, G. J. & Ambler, T. (2007). *The SAGE handbook of advertising*. Thousand Oaks, CA: Sage
- Tesser, A. (1993). The importance of heritability in psychological research: the case of attitudes. *Psychological review*, 100(1), 129.
- Thaler, R. H. & Sunstein, C. R. (2008). *Nudge: Improving decisions about health, wealth, and happiness*. Boston; Yale University Press.
- Thompson, A. & Parsons, A. (2009). *Social engineering and social marketing: why is one 'Good' and the other 'Bad'*. Oslo, Kristiansand.
- Tidy, M. (2014). *Diabetes Education and Self-management Programmes*. Retrieved 07/25, 2014 from <http://www.patient.co.uk/doctor/diabetes-education-and-self-management-programmes>
- Truong, V. D. (2014). Social Marketing A Systematic Review of Research 1998-2012. *Social Marketing Quarterly*, 20, 15-34
- Tsang, E. W. (2013). Generalizing from Research Findings: The Merits of Case Studies. *International Journal of Management Reviews*
- Tudge, J. R., Mokrova, I., Hatfield, B. E. & Karnik, R. B. (2009). Uses and misuses of Bronfenbrenner's bioecological theory of human development. *Journal of Family Theory & Review*, 1, 198-210
- Tudge, J. R., Odero, D. A., Hogan, D. M. & Etz, K. E. (2003). Relations between the everyday activities of preschoolers and their teachers' perceptions of their competence in the first years of school. *Early Childhood Research Quarterly*, 18, 42-64
- Tosun, A. S., & Zincir, H. (2016). Motivational Interview Method Based on Transtheoretical Model of Health Behaviour Change in Type 2 Diabetes Mellitus. *Psikiyatride Guncel Yaklasimlar-Current Approaches in Psychiatry*, 8(1), 32-41.
- Traina, S. B., Mathias, S. D., Colwell, H. H., Crosby, R. D., & Abraham, C. (2016). The Diabetes Intention, Attitude, and Behavior Questionnaire:

List of References

evaluation of a brief questionnaire to measure physical activity, dietary control, maintenance of a healthy weight, and psychological antecedents. *Patient preference and adherence*, 10, 213.

Trout, K. K., Ellis, K. K., & Bratschie, A. (2013). Prevention of obesity and diabetes in childbearing women. *Journal of Midwifery & Women's Health*, 58(3), 297-302.

Turkkan, J. S., Kaufman, N. J. & Rimer, B. K. (2000). Transdisciplinary Tobacco Use Research Centers: A model collaboration between public and private sectors. *Nicotine & Tobacco Research*, 2, 9-13

UK_Gov. (2013). *Public bodies reform*. Retrieved 09/12, 2013 from <https://www.gov.uk/public-bodies-reform>

UNFCCC. (1998). *Kyoto Protocol to the United Nations Framework Convention on Climate Change*. Retrieved 07/30, 2012 from <http://unfccc.int/resource/docs/convkp/kpeng.pdf>

United Nations. *Kyoto Protocol*. Retrieved 09/25, 2014 from http://unfccc.int/kyoto_protocol/items/2830.php

University of Hull. (2014). *Your Account*. Retrieved 08/17, 2014 from http://www2.hull.ac.uk/ICT/your_account.aspx

Varcoe, J. (2004). Assessing the effectiveness of social marketing. *ESOMAR Public Sector Research Conference*.

Vargo, S. L. & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing. *Journal of Marketing*, 68, 1-17

Vignali, C. & Davies, B. (1994). The marketing mix redefined and mapped: introducing the MIXMAP model. *Management Decision*, 32, 11-16

Visscher, P. M., Hill, W. G., & Wray, N. R. (2008). Heritability in the genomics era—concepts and misconceptions. *Nature Reviews Genetics*, 9(4), 255-266.

Von Glasersfeld, E. (1995). Radical Constructivism: A Way of Knowing and Learning. *Studies in Mathematics Education Series: 6*. ERIC

- Voorhees, C., McCall, M. & Calantone, R. (2011). A new look at the benefits of improving segmentation efforts with reward programs. *Cornell Hospitality Reports, 11*, 4-14
- Wadham, J., Robinson, A., Ruebain, D. & Uppal, S. (2010). *Blackstone's guide to the Equality Act 2010*. Oxford: Oxford University Press.
- Wallack, L. (1984). Social Marketing As Prevention: Uncovering Some Critical Assumptions. *Advances in Consumer Research, 11*, 682-687
- Wallack, L. (1990). Improving health promotion: media advocacy and social marketing approaches. In Atkin, Charles K. and Wallack, Lawrence (Ed.), *Mass communication and public health: Complexities and conflicts*. (pp. 147-163). Newbury Park, California: Sage.
- Wallack, L., Dorfman, L. & Jernigan, David and Themba-Nixon, Makani. (1993). *Media advocacy and public health: Power for prevention*. Thousand Oaks, CA: Sage.
- Wang, G., McGrath, B. B. & Watts, C. (2010). Health care transitions among youth with disabilities or special health care needs: an ecological approach. *Journal of pediatric nursing, 25*, 505-550
- Warren, R. (2005). Parental mediation of children's television viewing in low-income families. *Journal of Communication, 55*, 847-863
- Warshaw, P. R. (1980). A new model for predicting behavioral intentions: An alternative to Fishbein. *Journal of Marketing Research, 153-172*
- Webster Jr, F. E. (1992). The changing role of marketing in the corporation. *The Journal of Marketing, 1-17*
- Weisner, T. S. (2008). *The Urie Bronfenbrenner Top 19: Looking Back at His Bioecological Perspective: Making Human Beings Human. Bioecological Perspectives on Human Development, by Urie Bronfenbrenner (Ed.)*, Thousand Oaks, CA: Sage, 2005, 336 pp., 85.95(cloth), 39.95 (paper).
- Wells, W. D. (1997). Comment on social marketing: are we fiddling while Rome burns? *Journal of Consumer Psychology, 6*, 197-201

List of References

- White, K. M., Terry, D. J., Troup, C., Rempel, L. A., Norman, P., Mummery, K., ... & Kenardy, J. (2012). An extended theory of planned behavior intervention for older adults with type 2 diabetes and cardiovascular disease. *Journal of aging and physical activity, 20*(3), 281-299.
- WHO. (2012). Burden: mortality, morbidity and risk factors. *World Health Organisations, 64-65*
- WHO. (2013). *Diabetes Fact sheet N°312*. World Health Organisation Website. Retrieved 09/25, 2014 from <http://www.who.int/mediacentre/factsheets/fs312/en/>
- WHO. (2014). Health Estimates: Deaths by Cause, Age, Sex and Country, 2000-2012. *World Health Organization, Geneva*
- Wideen, M., Mayer-Smith, J. & Moon, B. (1998). A critical analysis of the research on learning to teach: Making the case for an ecological perspective on inquiry. *Review of educational research, 68*, 130-178
- Wiebe, G. D. (1951). Merchandising commodities and citizenship on television. *Public opinion quarterly, 15*, 679-691
- Williams, W. M. & Ceci, S. J. (1997). A person-process-context-time approach to understanding intellectual development. *Review of General Psychology, 1*, 288
- Wilson, E. (1993). Maximizing designers' impact on market success through product definition. *Design Management Journal (Former Series), 4*, 62-68
- Wilson, W. (1990). Product definition: Assorted techniques and their marketplace impact, 64-69
- Wood, M. (2012). Marketing social marketing. *Journal of Social Marketing, 2*, 94-102
- Wood, R. & Bandura, A. (1989). Social cognitive theory of organizational management. *Academy of management Review, 361-384*
- Wymer, W. (2010). Rethinking the boundaries of social marketing: Activism or advertising?. *Journal of Business Research, 63*, 99-103

- Wymer, W. (2011). Developing more effective social marketing strategies. *Journal of Social Marketing, 1*, 17-31
- Yin, R. K. (2006). Mixed methods research: are the methods genuinely integrated or merely parallel?. *Research in the Schools, 13*
- Yinger, J. M. (1960). Contraculture and subculture. *American Sociological Review, 625-635*
- Zielske, H. A. (1959). The remembering and forgetting of advertising. *The Journal of Marketing, 239-243*
- Zimbardo, P. G. & Boyd, J. N. (1999). Putting time in perspective: A valid, reliable individual-differences metric. *Journal of personality and social psychology, 77*, 1271
- Zipf, G. K. (1949). Human behavior and the principle of least effort: An Introduction to Human Ecology. London: Addison-Wesley Press.

List of References

Appendix 1 Research Questionnaire Codebook.

This appendix lists the questions used for the patient participants in a codebook format. The questions were sent as a survey via surveys.ie (a pay per use online survey platform). The questions were developed from a pre-study focus group using the tutors of health education courses and marketers from the Experts Patients Programme Community Interest Company.

Research Question Code Book:

Full variable name	Ref	Coding instructions
Identification number	Id	Subject identification number (automatic generation)
Diabetes Type	DT	1 = T1; 2 = T2; 3 = Other
Gender	Sex	1 = Male; 2 = Female
Employment satus	Emp	1 = Emp; 2 =Unemp; 3 = Retired; House Wife/Husband=4
Length Unemployed	LUEmo	1 = < 12mths; 2 = 12mths; 3 = > 12mths
Address (Post Code)	Loc	Text
Ethnicity	Eth	1 = White: UK 2 = White: Irish 3 = White: Other White 4 = White: Gypsy or Irish Traveller 5 = Mixed: White and Black Caribbean 6 = Mixed: White and Black African 7 = Mixed: White and Asian 8 = Mixed: Other Mixed 9 = Asian or Asian British: Indian 10 = Asian or Asian British: Pakistani 11 = Asian or Asian British: Bangladeshi 12 = Asian or Asian British: Other Asian 13 = Black or Black British: Caribbean

Appendices

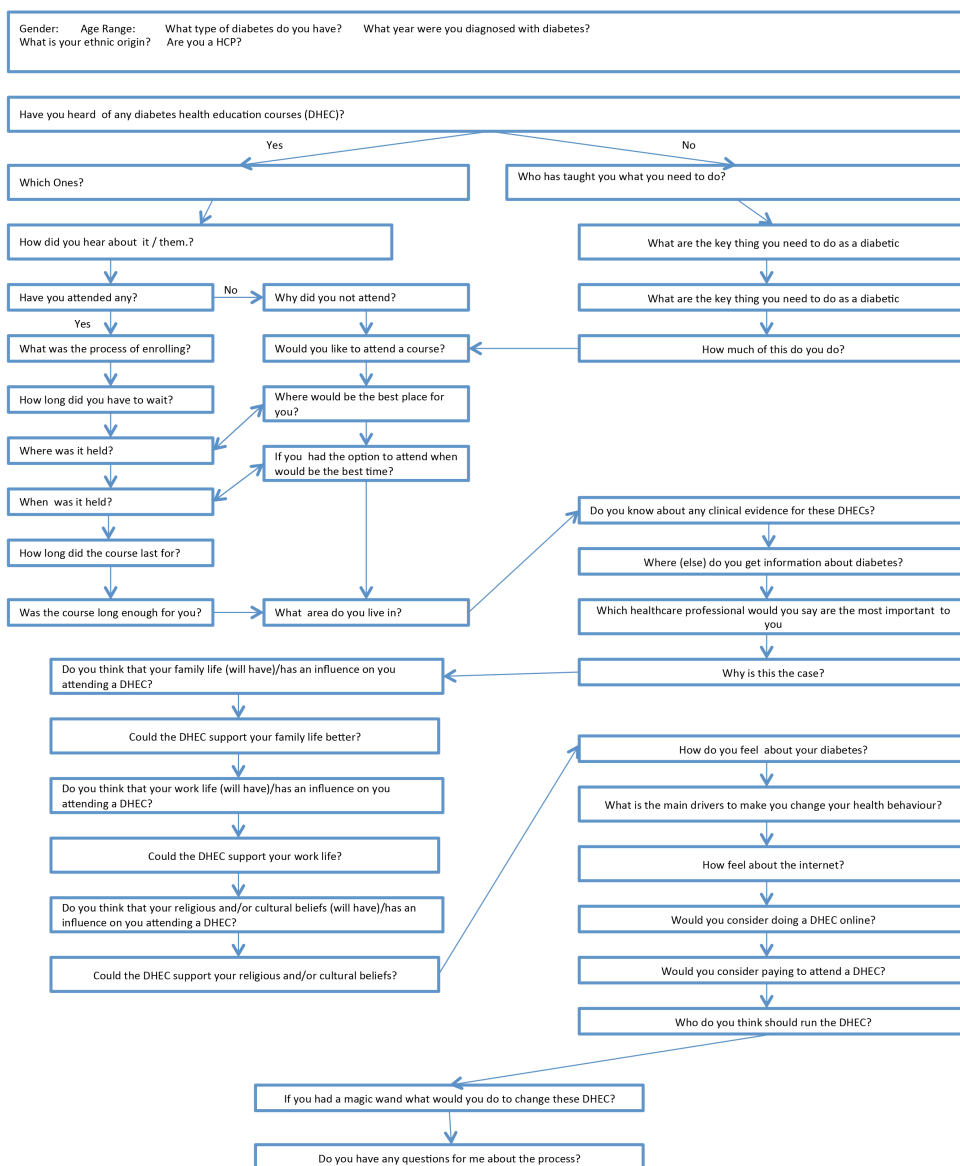
		14	= Black or Black British: African
		15	= Black or Black British: Other Black
		16	= Chinese
		17	= Other Ethnic Groups
DOB	DOB	Text	
Additional long term chronic conditions	ALTCC	1 = No; 2 = Yes	
Year of diagnosis	Year	Text	
Responsible for children	Resp	1 = PreSchool age; 2 = School age; 3 = Disab	
Offered a course	Ocse	1 = No; 2 = Yes,	
Accepted a course	Acse	1 = No; 2 = Yes,	
Attended a course	AtCse	1 = No; 2 = Yes,	
Attending a DSEC would help me protect my health.	BB1	1 = Strongly disagree; 2 = disagree; 3 = not sure; 4 = agree; 5 = Strongly agree	
Family supported me in managing diabetes.	BB2	1 = Strongly disagree; 2 = disagree; 3 = not sure; 4 = agree; 5 = Strongly agree	
I would attend a course 9-5 Mon to Fri.	BB3	1 = Strongly disagree; 2 = disagree; 3 = not sure; 4 = agree; 5 = Strongly agree	
I would attend a course if there was a flexible range of times to attend.	BB4	1 = Strongly disagree; 2 = disagree; 3 = not sure; 4 = agree; 5 = Strongly agree	
A 6 day DHEC (run over 6 weeks) would teach me all I need to know about diabetes.	BB5	1 = Strongly disagree; 2 = disagree; 3 = not sure; 4 = agree; 5 = Strongly agree	
A 1 day DHEC would teach me all I need to know about diabetes.	BB6	1 = Strongly disagree; 2 = disagree; 3 = not sure; 4 = agree; 5 = Strongly agree	

Appendix 2 Interview Schedule: Participants.

This appendix provides the reader with view of the interview schedule used with patient participants.

Interview schedule: individuals with diabetes.

Introduce yourself and run through the Participant Information Sheet and Consent form.



Appendix 3 Example Of A Patient Participant Transcription.

This appendix provides the reader with an example of the transcription for a patient participant (Participant 1 Type II):

Individual is a female.

What age group do you sit in? I am 55.

What type of diabetes do you have? I have type 2 diabetes.

What is your highest level of qualifications? CSCs.

When were you diagnosed with diabetes? em, ohh... end of August no, end of January 2013.

Are you a HCP? Em, I work in the NHS but I do admin.

Are you working at the moment? Yes, as mentioned earlier.

What would you class your ethnic origin as? White British.

What part of the country do you live in? Hull

Have you attended a Diabetes HEC? Yes

What Type was it? It was Diabetes awareness course, that's what it was called.

Who told you to go on the course? The dietician at the doctors.

Were you aware of any of these courses previously? No

What made you want to do the course? Erm... To find out more about it and em, yeah, to find out what I could and could not eat.

What have you learnt from the course? Em, yes, I have learnt that erm, it was different to what I thought it would tell me what caused diabetes but that was not it, it is more to do with your carbs, carbohydrates and it is keeping them on the level to manage your diabetes, although er... no.

How long was the course for? It was for 2 afternoons, it was advertised as 2 hours, the first one lasted about one hour and three quarters, the last one lasted about an hour and a half.

Who provided the course? The dietician did the training.

Is there any follow up? No, that was it.

Are you aware of any other courses that might be available to you? No.

What would you say that the quality of the course was? (Long pause) Average I would say... It was not very inspiring (laughs), em. It is very difficult to learn about everything that you need to know in just two short sessions.

How many people were on the course with you? There were eight altogether.

Were they all type 2? Yes they were all type two.

Does your family support you with the management of diabetes? Yes.

How do they do that? They are always checking up on me to see if my levels are correct, they make sure I eat the right things, D**** (husband, name removed for publication) makes sure we go out for walks and stay fit.

Who are they? Who were you referring too? Oh... they are my kids and my husband.

How old are your kids? They 24 and 21 years, the 24 year old is away in the Army but he still rings home to see how I am and my daughter is at home.

Would you prefer to attend a course in the evening, during the day or at the weekend? Oh... err, I don't really mind, mine was during the day, my boss was very good, she let me have the time off, but I do work for the NHS.

Do you think attending a longer course would have been better for you? Err... I don't know, I am not sure, are there longer courses, how long would it be? (Interviewer explains the different options) err... I don't know, mine was good.

Are you concerned about having diabetes? Yes, erm.. the complications that can arise from it are my main concerns. The risk of a heart attack, feet problems, kidney problems.

How did you find out about these complications? They talked about it on the course, but also I read about it and look on the internet, it really frightens you, it made me very worried. There is so much conflicting information about diabetes, I don't look at the internet anymore, I have come to realise that the more you read the more confused you become.

Will you change your health behaviours? Yes, I need to lose weight and do more exercise, err... it's because I want to be here a bit longer.

Appendices

Would you say that before being diagnosed were you a healthy person in terms of you managing your diet and exercising? No I wasn't... I just did what I want because it made me feel happy. It is really tough now,... I have to be very disciplined.

Whose is the main person in the HCP field providing you with support now? The diabetic nurse at the doctors, they have a designated diabetic nurse, I can call on here at any time for advice.

How could the course be improved? Erm.... it needs to be slightly more inspiring but erm.. I am not sure really.

What information did you receive? They gave me hand outs and booklets to read, but I haven't looked at them since.

How many pieces of fruit should you eat a day? 5, this is the message that they have been promoting although I only eat

What was the key message they were trying to push? Exercise was the key thing I think. There was also keeping your carbs at the right level, they talked about how to do that, less potatoes, less bread. The messages are difficult to remember because there is more of them.

What internet sites do you go to find out about diabetes? Diabetes UK, I have looked at that a bit. There are others too, you know what it is like, you put diabetes into the search engine and you get lots and lots of options.

Have you joined any support groups? No, I did not know there were any support groups.

Would you do a course online? Yes, probably, but sometimes it is good to chat to other people too. I mean face to face.

What impact did the course have on your work life? The course was on a Monday afternoon, so obviously you have to take time of work for that. So that's not... erm it does not encourage people to go I think.

What was the material you were given branded as? What do you mean (interviewer explains), oh, it was East Riding Diabetes, no Hull and East Riding Diabetes Network. And it is called Living with Diabetes, I am just looking at the materials now, I was wrong earlier it was not called Diabetes Awareness.

Do you have any family members that have diabetes? No.

What impact does diabetes have on your family life? My children have left home to start their own families now, it is just me and my husband. He likes his food so I end up cooking two types of meals which is a bit of a pain (interviewer asks: would he not change his diet to help you? Erm... I have never asked him, I don't think it is fair).

What impact did diabetes have on your ability to attend the DHEC? Not really but it would have been nice for my husband to come along to see what I have to do. I was given 3 lots of tablets to take and no one said whether or not it could be controlled just by diet, there was no option to start on that it was a case of take these and that's that.

Appendix 4 Census Questionnaire.

This appendix provides the reader with census questionnaire used to establish how many diabetes health education courses were provided by the various PCTs and how successful they were in their uptake:

Dear Sir / Madam,

I am currently carrying out some research on “diabetes patient self management programmes” across the NHS in England and would very much appreciate gaining access to the following data under the freedom of information Act 2000:

1. How many DAFNE Programmes or similar (diabetes self management courses) did you run from April 2011 to end March 2012, please state by PCT / Trust:
 - a. Number of courses commissioned.
 - b. Number of courses delivered.
 - c. Number of people that completed the programme.
 - d. Who delivered the programme(s).
 - e. The cost of the programme.

2. How many DESMOND Programmes or similar (diabetes self management courses) did you run from April 2011 to end March 2012, please state by PCT / Trust:
 - a. Number of courses commissioned.
 - b. Number of courses delivered.
 - c. Number of people that completed the programme.
 - d. Who delivered the programme(s).
 - e. The cost of the programme.

3. How many Xpert Programmes (diabetes self management courses) did you run from April 2011 to end March 2012, please state by PCT / Trust:
 - a. Number of courses commissioned.
 - b. Number of courses delivered.
 - c. Number of people that completed the programme.
 - d. Who delivered the programme(s).
 - e. The cost of the programme.

4. How many Other types of diabetes self management courses did you run from April 2011 to end March 2012, please state by PCT / Trust:
 - a. The name of the course.
 - b. Number of courses commissioned.
 - c. Number of courses delivered.
 - d. Number of people that completed the programme.
 - e. Who delivered the programme(s).
 - f. The cost of the programme.

Please note: it is my intention to publish these results as part of my PhD. It may also be published in an academic peer review journal (not for profit).

My contact details are as follow:

Name: Alan Shaw

Email: alanshawxxx@xxxxxxx

Address: xxxx

xxxx

xxxx

xxxx

Tel: xxxxx

Many thanks in advance for your support and help.

Yours faithfully

Alan Shaw

Note: For privacy reasons my email, address and telephone number have been redacted.

Appendix 5 Diabetes Centres In England.

Identification of NHS England’s diabetes centres was established using NHS Choices’ find a diabetes information and support services portal, see figure A5.1 (<http://www.nhs.uk/Service-Search/Diabetes%20information%20and%20support/LocationSearch/333>):

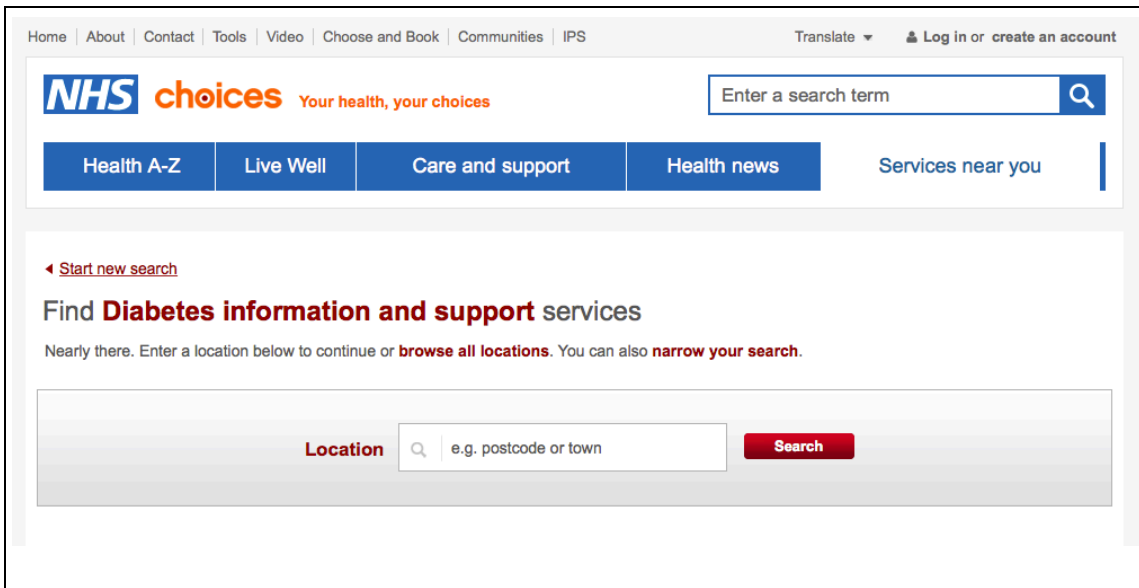


Figure A5.1: NHS Choices’ find a diabetes information and support services portal.

Appendix 6 Participant Information Sheet and Consent Forms.

This appendix provides the reader with the details of the participant information sheet and consent forms that were used the patients and HCPs participants for this research. It is split into two parts, the first was given to the patients participants and then second to the HCPs participants:

Part 1: Patient Participants.

Participant Information Sheet

What are the Social Marketing drivers that influence health behaviour changes for individuals living with diabetes?

The University of Hull would like to invite you to take part in a research programme that will be asking: “What are the Social Marketing drivers that influence health behaviour changes for individuals living with diabetes?” More specifically we are trying to establish why individuals who live with diabetes choose to attend a diabetes health education course.

Before you decide if you would like to take part in this study you need to understand why the research is being done and what it would involve for you. This is why we have sent you this information sheet. Don't worry if there is anything here that you don't understand because our researcher will go through it with you and answer any questions you have.

To try and make things simple we have split this information sheet into two sections: part 1 tells you the purpose of this study and what will happen to you if you participate and part 2 gives you more detailed information about the conduct of the study. Please ask the researcher during the study if there is anything that is not clear.

Part 1:

Social marketing is a process designed to improve the welfare of individuals and society. Unlike traditional marketing, social marketing should not financial benefit the organisation that is doing the actual marketing. The NHS use social marketing to encourage a variety positive behaviour changes, they include

Appendices

programmes like diabetes health education course: NICE have stipulated that every individual diagnosed with diabetes should attend a health education programme but a recent study by Diabetes UK identified that only 36% of individuals living with the condition has attended a course.

Other studies have identified that individuals living with a long-term chronic condition (like diabetes) account for 70% of the healthcare budget and those who attend a health education course become better managers of their condition and spend less time seeing healthcare professionals in the NHS. This means that increasing the up take of these courses will add to the quality of life for the individuals who attend it and have a positive impact on society as a whole. This research will establish if the social marketing of health education courses in NHS England are effective. It will also look for ways to potentially improve the process.

Should you decide to take part your only requirement will be to answer a number of questions during a telephone interview (this will last between 20 and 40 minutes). All responses will be anonymous.

Part 2:

To take part in the telephone interview you must be over 18 years of age, live in England and have either type 1 or type 2 diabetes. You will have seen the advert in Diabetes UK's Balance magazine and have already made contact via e-mail with the University's researcher (this is why you have been sent this Participant Information Sheet and the Consent Form). You will need to complete the consent form and return to the researcher confirming that you are happy to continue with the study. The researcher will arrange a time that is convenient to you to go through the questions which will relate to why you have or haven't attended a diabetes health education course. Before starting the researcher will run through this Participant Information Sheet, confirm your consent and ensure that you are happy to continue.

The process will be anonymous (your name and contact details will not be published). At the end of the interview your contact details will be destroyed. You will have the option to stop at any point during the interview and request that your answers are not used.

This research is a doctoral project: this means that the researcher is using the information to gain PhD (a philosophy doctorate in marketing). The objective is to publish the results in Diabetes UK's Balance magazine but it is likely to be two years before this is complete.

If you are unhappy with any aspect of this research you can make a complaint to the University of Hull: should you wish to do so your initial point of contact will be the Research Supervisor: Dr Stephan Dahl whose email is s.dahl@hull.ac.uk . If he is unable to resolve your issues it will be escalated to the University's Ethics Committee.

Participant Consent Form

Qualitative Element:

To reduce the need to handle personal data, participants will be contacted by telephone, the following script shall be read:

"My name is Alan Shaw and I am a doctoral researcher from the University of Hull, first of all I would like to thank you for agreeing to support this research project which will be asking "what are the Social Marketing drivers that influence health behaviour changes for individuals living with diabetes?" The process will take between 20 and 40 minutes however if you decide that you do not want to continue for whatever reason then please let me know and we will halt the process. It will be anonymous but I will be recording the interview to help me with my note taking.

If you are unhappy with any aspect of this research you can make a complaint to the University of Hull: should you wish to do so I will provide you with the appropriate details.

Can I confirm that you are over the age of 18 years and that you live in England. Are you happy to continue?"

Quantitative Element:

To reduce the need to handle personal data, participants will not provide any personal information whilst doing the electronic survey. The opening page will have the following notice on it:

Appendices

My name is Alan Shaw and I am a doctoral researcher from the University of Hull, first of all I would like to thank you for agreeing to support this research project which will be asking “what are the Social Marketing drivers that influence health behaviour changes for individuals living with diabetes?” This electronic survey will take approximately 40 minutes (note to reviewer: exact timings to be confirmed) however if you decide that you do not want to continue for whatever reason you can stop and your answers will not be used.

If you are unhappy with any aspect of this research you can make a complaint to the University of Hull: s.dahl@hull.ac.uk (this is the supervisor managing the project).

By continuing with this survey you confirm that:

Your age is 18 years or over.

You live in England.

You are providing informed consent to take part in this survey.

Part II: HCP Participants.

Participant Information Sheet

What are the Social Marketing drivers that influence health behaviour changes for individuals living with diabetes?

The University of Hull would like to invite you to take part in a research programme that will be asking: “What are the Social Marketing drivers that influence health behaviour changes for individuals living with diabetes?” More specifically we are trying to establish why individuals who live with diabetes choose to attend a diabetes health education course.

Before you decide if you would like to take part in this study you need to understand why the research is being done and what it would involve for you.

This is why we have sent you this information sheet. Don't worry if there is anything here that you don't understand because our researcher will go through it with you and answer any questions you have.

To try and make things simple we have split this information sheet into two sections: part 1 tells you the purpose of this study and what will happen to you if you participate and part 2 gives you more detailed information about the conduct of the study. Please ask the researcher during the study if there is anything that is not clear.

Part 1:

Social marketing is a process designed to improve the welfare of individuals and society. Unlike traditional marketing, social marketing should not financial benefit the organisation that is doing the actual marketing. The NHS use social marketing to encourage a variety positive behaviour changes, they include programmes like diabetes health education course: NICE have stipulated that every individual diagnosed with diabetes should attend a health education programme but a recent study by Diabetes UK identified that only 36% of individuals living with the condition has attended a course.

Other studies have identified that individuals living with a long-term chronic condition (like diabetes) account for 70% of the healthcare budget and those who attend a health education course become better managers of their condition and spend less time seeing healthcare professionals in the NHS. This means that increasing the uptake of these courses will add to the quality of life for the individuals who attend it and have a positive impact on society as a whole. This research will establish if the social marketing of health education courses in NHS England are effective. It will also look for ways to potentially improve the process.

Should you decide to take part your only requirement will be to answer a number of questions during a telephone interview (this will last between 20 and 40 minutes). All responses will be anonymous.

Part 2:

To take part in the telephone interview you must be a Healthcare Professional, administrator or manager working in NHS England related to either type 1 or

Appendices

type 2 diabetes. The researcher will arrange a time that is convenient to you to go through the questions which will relate to why you have or haven't attended a diabetes health education course. Before starting the researcher will run through this Participant Information Sheet, confirm your consent and ensure that you are happy to continue.

The process will be anonymous (your name and contact details will not be published). At the end of the interview your contact details will be destroyed. You will have the option to stop at any point during the interview and request that your answers are not used.

This research is a doctoral project: this means that the researcher is using the information to gain PhD (a philosophy doctorate in marketing). The objective is to publish the results in Diabetes UK's Balance magazine but it is likely to be two years before this is complete.

If you are unhappy with any aspect of this research you can make a complaint to the University of Hull: should you wish to do so your initial point of contact will be the Research Supervisor: Dr Stephan Dahl whose email is s.dahl@hull.ac.uk . If he is unable to resolve your issues it will be escalated to the University's Ethics Committee.

Participant Consent Form

Qualitative Element:

To reduce the need to handle personal data, participants will be contacted by telephone, the following script shall be read:

"My name is Alan Shaw and I am a doctoral researcher from the University of Hull, first of all I would like to thank you for agreeing to support this research project which will be asking "what are the Social Marketing drivers that influence health behaviour changes for individuals living with diabetes?" The process will take between 20 and 40 minutes however if you decide that you do not want to continue for whatever reason then please let me know and we will halt the process. It will be anonymous but I will be recording the interview to help me with my note taking.

If you are unhappy with any aspect of this research you can make a complaint

to the University of Hull: should you wish to do so I will provide you with the appropriate details.

Can I confirm that you are over the age of 18 years and that you live in England. Are you happy to continue?"

Appendix 7 Interview Schedule: HCPs.

This appendix provides the reader with the details of the interview schedule used for healthcare professionals, administrators and/or managers of a function of NHS England associated with diabetes:

1. Why do you think that your patients decide to take part in the diabetes structured education course?
2. Why do you think that your patients decide not to take part in the diabetes structured education course?
3. What do you do to encourage them to participate?
4. What sort of up take do you think you get from your patients?
5. Do you think that this up take is good?
6. Do you know how other PCTs fair in the provision of diabetes structured education courses?
7. Why do you provide the course that you do?
8. Why do you use the one of the National courses?
9. What do you have to pay for providing this course?
10. Do you keep a list of the participants who have attended?
11. How do you check to see if the participants have understood what has been delivered and if they are applying the behaviour changes?
12. Is there any follow up?
13. Who delivers the course for you?
14. Do you think anyone else can deliver this course?
15. How do you advertise the course?
16. What sort of printed materials do you provide the participants?
17. Do you provide any other materials?
18. Do you have a website for the course (ie with information about what they have learnt)?
19. If no: why don't you have one?
20. What days do the courses run?
21. Do you provide the participants with the flexibility to select which course to attend?
22. If no: why not?
23. Do you provide any language specific courses?
24. If no: why not?
25. How do you decide whom to invite on the course?
26. What do you personally think about the course?
27. How do you think it could be made better?

Appendix 8 Census Results.

This appendix provides the reader with the results of the census. It identifies which PCTs delivered a diabetes structured education course, which PCTs did not and which PCTs were not sure:

Ref		Delivered	Did not Del	Did not know	Delivered	Did not Del	Did not know
		Type I			Type II		
1	Ashton, Leigh and Wigan PCT	1			1		
2	Barking and Dagenham PCT			1	1		
3	Barnet PCT			1	1		
4	Barnsley PCT			1	1		
5	Bassetlaw PCT			1	1		
6	Bath and North East Somerset PCT			1	1		
7	Bedfordshire PCT	1					1
8	Berkshire East PCT			1	1		
9	Berkshire West PCT			1	1		
10	Bexley PCT	1			1		
11	Birmingham East and North PCT			1	1		
12	Blackburn With Darwen PCT			1			1
13	Blackpool PCT			1	1		
14	Bolton PCT			1	1		
15	Bournemouth and Poole Teaching PCT			1	1		
16	Bradford and Airedale Teaching PCT			1	1		
17	Brent Teaching PCT	1			1		
18	Brighton and Hove City PCT	1			1		
19	Bristol PCT			1	1		
20	Bromley PCT	1			1		
21	Buckinghamshire PCT			1	1		
22	Bury PCT	1			1		
23	Calderdale PCT			1	1		
24	Cambridgeshire PCT	1			1		
25	Camden PCT			1	1		
26	Central and Eastern Cheshire PCT			1	1		
27	Central Lancashire PCT			1			1
28	City and Hackney Teaching PCT	1			1		
29	Cornwall and Isles Of Scilly PCT	1			1		
30	County Durham PCT	1			1		
31	Coventry Teaching PCT		1				1
32	Croydon PCT	1			1		
33	Cumbria Teaching PCT		1		1		
34	Darlington PCT		1			1	
35	Derby City PCT			1	1		
36	Derbyshire County PCT			1	1		

Appendices

37	Devon PCT		1		1
38	Doncaster PCT			1	
39	Dorset PCT	1			1
40	Dudley PCT		1		1
41	Ealing PCT			1	
42	East Lancashire Teaching PCT		1		1
43	East Riding Of Yorkshire PCT		1		1
44	East Sussex Downs and Weald PCT			1	1
45	Eastern and Coastal Kent PCT	1		1	
46	Enfield PCT			1	1
47	Gateshead PCT			1	1
48	Gloucestershire PCT	1		1	
49	Great Yarmouth and Waveney PCT			1	1
50	Greenwich Teaching PCT			1	1
51	Halton and St Helens PCT			1	1
52	Hammersmith and Fulham PCT			1	1
53	Hampshire PCT		1		1
54	Haringey Teaching PCT			1	1
55	Harrow PCT			1	1
56	Hartlepool PCT	1		1	
57	Hastings and Rother PCT			1	1
58	Havering PCT			1	1
59	Heart Of Birmingham Teaching PCT			1	1
60	Herefordshire PCT			1	1
61	Heywood, Middleton and Rochdale PCT			1	1
62	Hillingdon PCT			1	1
63	Hounslow PCT	1		1	
64	Hull Teaching PCT			1	1
65	Isle of White PCT			1	1
66	Islington PCT			1	1
67	Kensington and Chelsea PCT			1	1
68	Kingston PCT			1	1
69	Kirklees PCT	1		1	
70	Knowsley PCT			1	1
71	Lambeth PCT		1		1
72	Leeds PCT			1	1
73	Leicester City PCT		1		1
74	Leicestershire County and Rutland PCT		1		1
75	Lewisham PCT	1		1	
76	Lincolnshire Teaching PCT			1	1
77	Liverpool PCT			1	1
78	Luton PCT			1	1
79	Manchester PCT	1			1
80	Medway PCT			1	1
81	Mid Essex PCT	1			1
82	Middlesbrough PCT		1		1
83	Milton Keynes PCT			1	1
84	Newcastle PCT			1	1
85	Newham PCT	1			1

Appendices

86	Norfolk PCT		1	1	
87	North East Essex PCT		1	1	
88	North East Lincolnshire PCT		1		1
89	North Essex PCT		1		1
90	North Lancashire Teaching PCT		1	1	
91	North Lincolnshire PCT		1		1
92	North Somerset PCT		1	1	
93	North Staffordshire PCT		1		1
94	North Tyneside PCT		1	1	
95	North Yorkshire and York PCT		1		1
96	Northamptonshire Teaching PCT		1		1
97	Northumberland PCT	1		1	
98	Nottingham City PCT	1			1
99	Nottinghamshire County Teaching PCT	1			1
100	Oldham PCT	1			1
101	Oxfordshire PCT		1	1	
102	Peterborough PCT		1		1
103	Plymouth Teaching PCT		1	1	
104	Portsmouth City Teaching PCT		1		1
105	Redbridge PCT		1		1
106	Redcar and Cleveland PCT	1		1	
107	Richmond and Twickenham PCT	1		1	
108	Rotherham PCT		1		1
109	Salford PCT		1		1
110	Sandwell PCT		1		1
111	Sefton PCT		1		1
112	Sheffield PCT	1		1	
113	Shropshire County PCT		1	1	
114	Solihull PCT		1		1
115	Somerset PCT	1		1	
116	South Birmingham PCT		1		1
117	South East Essex PCT		1		1
118	South Gloucestershire PCT	1		1	
119	South Staffordshire PCT		1	1	
120	South Tyneside PCT		1		1
121	South West Essex PCT	1		1	
122	Southampton City PCT		1		1
123	Southwark PCT		1		1
124	Stockport PCT		1	1	
125	Stockton-on-Tees Teaching PCT		1	1	
126	Stoke On Trent PCT		1		1
127	Suffolk PCT		1	1	
128	Sunderland Teaching PCT		1	1	
129	Surrey PCT		1		1
130	Sutton and Merton PCT	1		1	
131	Swindon PCT		1	1	
132	Tameside and Glossop PCT		1	1	
133	Telford and Wrekin PCT	1		1	
134	Torbay PCT	1		1	
135	Tower Hamlets PCT	1		1	

Appendices

136	Trafford PCT		1		1		
137	Wakefield District PCT	1			1		
138	Walsall Teaching PCT	1			1		
139	Waltham Forest PCT			1		1	
140	Wandsworth PCT			1		1	
141	Warrington PCT		1				1
142	Warwickshire PCT		1				1
143	West Essex PCT			1		1	
144	West Kent PCT	1			1		
145	West Sussex PCT			1	1		
146	Western Cheshire PCT			1		1	
147	Westminster PCT			1	1		
148	Wiltshire PCT	1			1		
149	Wirral PCT		1				1
150	Wolverhampton City PCT			1	1		
151	Worcestershire PCT	1			1		
152	Wycombe PCT			1		1	
	Total	41	25	86	71	65	16

Appendix 9 Completed Content Analysis Code Book.

This appendix provides the reader with the details of the content analysis code book for the Type I and Type II diabetics interviewed:

Type I Person	Employed			Unemployed			Retired			White/European			BME			Dependants			Non-dependants			
	+	-	NR	+	-	NR	+	-	NR	+	-	NR	+	-	NR	+	-	NR	+	-	NR	
Process																						
Flexible Course	7						9			15			1			5			11			
Non Flexible Course	3	4					8	1		11	4		1			2	3		9	2		
Microsystem																						
Family	7						9			15			1			5			11			
Work		3	4					1	8		3	12	1	1			5		4	7		
DHEC	7						9			15			1			5			11			
Mesosystem																						
Family - DHEC	7						9			15			1			5			11			
Work - DHEC	3	4						9		3	4	8		1		3	1	1		3	8	
Macrosystem																						
Language specific courses			7					9			15			1			5				11	
Gender specific courses			7					9			15			1			5				11	
Time																						
Long course (over 6-8 sessions)	7						9			15			1			5			11			
Medium length course (over 2 to 5 sessions)	7						9			15			1			5			11			
Short course (1 session: half or full day)	7						9			15			1			5			11			

Type II Person	Employed			Unemployed			Retired			White/European			BME			Dependants			Non-dependants			
	+	-	NR	+	-	NR	+	-	NR	+	-	NR	+	-	NR	+	-	NR	+	-	NR	
Process																						
Flexible Course	7						9			12			4			4			12			
Non Flexible Course	1	6					5	4		6	6		4			4			6	6		
Microsystem																						
Family	2	5					3	6														
Work																						
DHEC	7						9			12			4			4			12			
Mesosystem																						
Family - DHEC	2	3	2				2	7		4	3	5		4		1	3		3	9		
Work - DHEC		4	3					9		4	4	8		4		2	2		2	10		
Macrosystem																						
Language specific courses			7					9			12		4			1	3		3	9		
Gender specific courses			7					9			12		3	1		1	3		2	10		
Time																						
Long course (over 6-8 sessions)	7						9			12			4			4			12			
Medium length course (over 2 to 5 sessions)	7						9			12			4			4			12			
Short course (1 session: half or full day)	7						9			12			4			4			12			

Appendices

Person	Employed			Unemployed			Retired			White/European			BME			Dependants			Non-dependants		
	+	-	NR	+	-	NR	+	-	NR	+	-	NR	+	-	NR	+	-	NR	+	-	NR
Process																					
Flexible Course	14						18			27			5			9			23		
Non Flexible Course	4	10					13	5		17	10		5			2	7		15	8	
Microsystem																					
Family	9	5					12	6		15	0	0	1			5			11		
Work		3	4					1	8	0	3	12	1				5		4	7	
DHEC	14						18			27	0	0	5			9			23		
Mesosystem																					
Family - DHEC	9	3	2				11	7		19	3	5	1	4	6	3			14	9	
Work - DHEC	3	8	3					18		3	8	16		5	3	3	3		5	18	
Macrosystem																					
Language specific courses			14				18			27			4	1	1	8			3	20	
Gender specific courses			14				18			27			3	2	1	8			2	21	
Time																					
Long course (over 6-8 sessions)	14						18			27			5			9			23		
Medium length course (over 2 to 5 sessions)	14						18			27			5			9			23		
Short course (1 session: half or full day)	14						18			27			5			9			23		

Appendix 10 Collins Tapp and Pressley's (2010) SEF Scenarios.

This appendix is a direct copy of Collins, Tapp and Pressley's (2010, p1197 - 1198) SEF Scenarios as presented in their appendix to their "Social marketing and social influences: using social ecology as a theoretical framework" article:

Scenario	Macro	Exo	Miso	Micro	Comments
1	+	+	+	+	Is the behaviour conscious or unconscious? Cognitive or emotional? How can the positive forces in the environment be harnessed, e.g. peer pressure, small group influences, community-led initiatives?
2	+	+	+	-	Look at micro influences. Which setting? Peer pressure, family influences, etc. Options would include harnessing the positive forces in the environment, e.g. via the community, school, or work.
3	+	+	-	+	Can the problems in the Mesosystem be solved? How can the other positive forces in the environment be harnessed to improve the Mesosystem, e.g. grassroots initiatives, community organisation?
4	+	+	-	-	Are the problems in the Meso and Microsystems linked? Where best to solve them (school, work, home, community)? How can the other positive forces in the environment be harnessed?
5	+	-	+	+	Can the negative influences in the Exosystem be mitigated or changed? Options would include harnessing the positive influences in the Meso and/or Microsystems, e.g. community or grassroots campaigns?
6	+	-	+	-	Can the negative influences in the Exosystem be mitigated or changed? Can the positive influences in the Mesosystem be used to tackle the problems in the Micro and/or Exosystem, e.g. community organisation?
7	+	-	-	+	Can the negative influences in the Exo and/or Mesosystems be mitigated or influenced? Can the positive influences in the Mesosystem be used to tackle the problems in the Micro and/or Exosystem?
8	+	-	-	-	Can the negative influences at the lower levels be mitigated or influenced? Which presents the best opportunity for change or to influence the other levels?
9	-	+	+	+	This scenario is considered unlikely, as it seems implausible that the Macrosystem would exert a negative influence if all other levels were positive.

Appendices

10	-	+	+	-	Strategic options would include tackling negative influences in the Microsystem, either directly or via the Meso or Exosystem, ultimately affecting the Macrosystem.
11	-	+	-	+	Options could include harnessing the Microsystem in grassroots initiatives to tackle negative influences in the Meso and Macrosystems.
12	-	+	-	-	This scenario suggests that the behavioural issues are all sociocultural, so strategic options could include attempts to tackle problems in the Meso and/or Microsystems, ultimately affecting the Macrosystem.
13	-	-	+	+	This scenario closely fits our lung-cancer diagnosis case study. Strategic options could include grassroots initiatives and/or community organisation to tackle the barriers in the Exosystem, ultimately affecting the Macrosystem.
14	-	-	+	-	This scenario best fits our reckless driving case study. There is a strong sense of local community that can be harnessed, but significant negative influences in the Microsystem, barriers in the Exosystem, and a Macrosystem characterised by economic deprivation allied to a subculture of rebellion and thrill-seeking behaviour.
15	-	-	-	+	This scenario would call for either a grassroots-led initiative, community organisation (if possible), or a 'tipping-point' style identification of influential individuals to stimulate change.
16	-	-	-	-	This scenario would present a significant challenge. Which level presents the best opportunity for change or to influence the other levels? This may be the scenario that best represents the challenge of encouraging people to cycle instead of drive. Strategy would be directed by an assessment of which level is most receptive to change.