

THE UNIVERSITY OF HULL

**Enhancing Independence and the Quality of Life of Older People
through Intermediate Care - A Mixed Methods Evaluation**

**Being a Thesis submitted for the Degree of Doctor of Philosophy
In the University of Hull**

By Wendy Vanessa Barker BSc Hons, MSc

May 2008

ACKNOWLEDGMENTS:

My thanks and gratitude goes to my supervisors. Firstly special thanks to Professor Roger Watson who supported me in the initial stages of this study and secondly special thanks to Dr Peter Draper and Barbara Elliott who have supported me in the latter stages. I wish to thank them for their continual support and constructive feedback. I would also like to thank Eric Gardiner for his input.

In addition, I would like to thank the East Riding Intermediate Care team and Sara Spencer for their valued assistance in supporting this study.

Special thanks go to my husband Thomas, my two sons Richard & Luke and to Gibson and Oscar. I wish to thank them for their continue patience, understanding and support during the completion of this research study.

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STUDY INTRODUCTION

This is a longitudinal study, utilising a mixed method approach. It gives a chronological account of the patient's journey within a local intermediate care service. To assist in understanding the patient's experience the study explores the reasons for accessing the service and describes care between two points. The purpose of the study is to explore whether an intermediate care service can enhance an older person's independence, quality of life and reduce dependency on future care services. The rationale for this study is that there is a lack of robust comprehensive evidence for intermediate care. Previous research has addressed the complexity of the intermediate care service by evaluating specific areas such as patient outcome, inpatient verses early discharge or cost effectiveness (Richards et al 1998, Rudd et al 1998, Shepperd et al 1998, Barton et al 2006). This study's approach is different because it attempts to follow the patient's journey. The patient's journey has not been used before to evaluate an intermediate care service.

Intermediate care is an intensive model of support in the community for people who would traditionally have required inpatient acute hospital services. It involves a multi-agency/disciplinary team approach to deliver therapeutic rehabilitation closer to home. There is an array of interchangeable terminology used to describe an intermediate care service, but translated literally the term 'intermediate' means 'coming between two things' (Collins 1993). For the patient this means hospital and home. Many authors have attempted to define intermediate care (Steiner 1997, Kings Fund 2000, DoH 2001b, Stevenson 2001, Barrett et al 2002), but it was not until 2001 that the Department of Health (DoH) published its guidance and described intermediate care as being targeted at people who would otherwise face

unnecessarily prolonged hospital stays or inappropriate admission to hospital, long-term residential care, or continuing National Health Service (NHS) in-patient care. The DoH description prioritises care that is based upon a comprehensive assessment. An assessment that results in a structured individual care plan that involves active therapy, treatment or opportunity for recovery and is to have a planned outcome of maximising independence and typically enabling the patient to resume living at home. It is recommended that an intermediate care service is time-limited, normally no longer than six weeks and frequently as little as one or two weeks or less. The intermediate care intervention must involve cross professional working, with a single assessment framework, single professional records and shared protocols.

Intermediate care was a result of the inherited economic pressure of the 1980's. During this period the NHS came under scrutiny (by the government of the time) to tackle weaknesses in the organisation and management of health services (Ham 1996). Intermediate care came to the forefront of United Kingdom (UK) government policy following the publication of the DoH NHS Plan in 2000 (DoH 2000). The NHS plan set out a radical ten-year programme to modernise the NHS. Intermediate care became a key component in taking forward this very ambitious agenda with minimal guidance from the DoH. This lack of guidance resulted in an array of different service models being developed across the country prior to the DoH guidance being published in 2001 (DoH 2001).

There is an assortment of early intermediate care evaluation studies. The majority of these have been fragmented and are inconclusive (this is discussed further in chapter one). The lack of consistency in service design has influenced this outcome. Without robust evidence to support the dissemination of intermediate care there

would be a risk of failure. The government made intermediate care a high priority to deliver the modernisation agenda. Later studies have shown that elements of intermediate care are flexible to meet local needs and effective in meeting the NHS agenda (Wade 2004). Intermediate care is complex and the provision varies from patient to patient or area to area. As such, it cannot be regarded as a single intervention. The complexity of the service lends itself to a mixed method evaluation of the type described in this study.

The mixing of research methods allowed the researcher to triangulate the results of the quantitative and qualitative data in a single study. It is argued that recognising that all methods have their limitations allows the researcher to offset the weaknesses inherent within one method with the strengths of another method. It is possible that biases inherent in a single method could neutralise or cancel those in another (Creswell 2003). In this study, it was concluded that the results from one method did help develop and inform the other method. Collectively the mixing of methods did allow the exploration of a very complex area – ‘The Patient’s Journey’.

The concept of the patient’s journey was used to structure this study. The patient’s journey is defined as an exploration of the distance travelled in a specified period and all the significant events that occurred on the way. The journey began prior to the patient accessing intermediate care. It includes their experience of the service, post intermediate care and follow up at twenty-eight days and six months. The analysis drew on the collective examination of all significant elements, influences (internal and external) and individual experiences during their journey as illustrated in figure 3.2.

The patient's journey has been used in nursing literature to describe different care pathways. A care pathway is a multidisciplinary outline of anticipated care for a patient with a similar diagnosis or set of symptoms. The pathway specifies the interventions required for the patient to progress during their care intervention (De Bleser, Depreitere, De Waele 2006). Care pathways are used to ensure that the quality of care is delivered to the patient in a consistent and efficient way (Griffith 2007). There are many examples of care pathways in the literature, for example a 'burns' care pathway (Dooley & White 2003) and 'care of the dying' care pathway (Ellershaw & Murphy 2005). In this study using the patient's experience as the key driver has assisted the researcher to examine service effectiveness in the broadest sense in relation to enhancing an individual's independence, quality of life and reducing dependency on future care services.

This study is presented within five chapters. The first chapter sets out the literature review in relation to the development of intermediate care, including a review of government policy and other internal and external influences (e.g. funding, resources, workforce etc). The review of the literature has served several purposes. It has identified the building blocks and foundations to the development of intermediate care. It has reviewed other research studies and has established the importance of undertaking this study to bring new knowledge and to address the gaps left by previous research.

The second chapter explores health, quality of life and independence. The promotion of health, quality of life and independence has been highlighted as a key outcome in the modernisation agenda for the NHS and intermediate care (Wade, 2004). A review of the knowledge base relating to these has supported this study in understanding

their influence on the patient's journey. The rationale was to explore these concepts to assist the researcher to understand how they might affect an individual and their experience during the intermediate care intervention.

The third chapter is the methodology chapter. It sets out the study's purpose, defines the study's aims and objectives, sets out the research design including consent, sampling, selection of instruments, data storage and collection and the analytical processes used to explore the data. It discusses the rationale for undertaking a mixed methods evaluation and the reasons why this study is not a Randomised Clinical Trial (RCT) and closes with a summary.

The fourth chapter forms the main body of the study and sets out the results. The results are based upon the analysis of the raw data collected as outlined in chapter three. The chapter is organised in terms of the study's aims (section 3.2). To assist with the appreciation of the analysed data, the results are published and presented in the form of summaries, individual quotes, tables, graphs and diagrammatic flow charts to illustrate key themes.

The fifth and final chapter of this study starts with a brief introduction and reconfirms the research aim and objectives. It discusses the main findings of the study and relates these to the findings in the literature. The chapter closes with a final summary and draws to a conclusion.

CHAPTER ONE LITERATURE REVIEW

This chapter reviews the literature in relation to the development of intermediate care, including a review of government policy. It explores the internal and external influences that have affected the development and implementation of intermediate care and presents a critical review of key research studies.

1.1 Introduction

Searching the literature helped to identify the driving forces, both internal and external in the development and implementation of intermediate care. In the UK's Government policy, intermediate care is a relatively new concept, with no reliable supporting evidence earlier than 1996. There is evidence of health and social care government policies influencing the developments within the community care agenda (Ham 1996). These include policies relating to working collaboratively and the quality and effectiveness agenda (Allsop 1995, Ham 1996, Loxley 1997). The importance of reviewing the literature cannot be underestimated and as stated by Walsh & Wigen (2003) it will assist in broadening a deeper understanding of the topic area. It is important to have a broad concept of the subject matter (intermediate care) or the interpretation of the study's results would have been jeopardised.

“Developing a broader and deeper understanding of the topic area of the research is properly the most important reason for obtaining and reviewing background information”.

Walsh & Wigen 2003, page 50

Tarling & Crofts (2002) offer advice when undertaking a systematic review of the literature. They state that whatever approach is used to review the literature, the researcher should always use the same basic search strategy. The researcher should follow four basic principles (as below). Following these four principles has assisted the process of undertaking a review of the literature.

- Being well-prepared
- Being well organised
- Being systematic
- Being accurate

Tarling & Crofts 2002, page 50

1.2 Search Method

The initial search was conducted between September 2002 and February 2003 inclusive. Between April and May 2004, a second review of the literature took place. A final review occurred in March 2006. The time period searched was from 1980 to 2006. There is no reliable evidence pre 1996 for intermediate care services. An initial search of electronic databases showed that no high quality systematic reviews or evaluations were undertaken that would answer the research question. The researcher also reviewed her own private collection (un-published information gathered from local and national networks including conferences attended, leaflets, unpublished reports etc). The national network accessed was the Health and Social Care Change Agent Team, who were set up in 2002 by the UK government to help health and social care communities tackle the problem of people staying in hospital longer than necessary. Their work included the development and review of

intermediate care. The Health and Social Care Change Agent Team can be accessed via <http://www.changeagentteam.org.uk> .

Elton B Stephens Company (EBSCO) academic search elite service was used to coordinate the literature search. This is a multi-disciplinary database covering nearly 2,050 scholarly journals. Accessing this service assisted the identification of literature from multidisciplinary periodical indexing and links into other web sites, including Medlars on line - Medical Literature Analysis & Retrieval Systems on line (Medline), Kings Fund (Unicorn), DoH, Cumulative index of nursing and allied health literature (CINAHL), The Cochrane database, and NHS Centre for Reviews and Dissemination. The key words used were:

- Intermediate care
- Intermediate care and/or evaluation
- Intermediate care and/or research
- Intermediate care and/or quality of life
- Intermediate care and/or rehabilitation
- Intermediate care and/or older people
- Intermediate care and/or effectiveness

Further exploration took place by including effectiveness, patient outcomes, hospital at home, and functional assessment with the key words. The literature was organised according to relevance to the topic area, but there was duplication. Table 1.1 illustrates the number of papers and reports identified when defining the search

keyword 'intermediate care'. A total of 185 papers and reports were identified when the literature was redefined. All of the 185 papers and documents were reviewed.

Search Tool	Total hits	Relevant
Medline	4592	62
Unicorn (Kings Fund)	72	25
DoH	200	98
CINAHL	264	89
COCHRANE	109	61
Nuffield Institute	6	2
Grey Literature	0	0
Sub total	5243	337
	Grand total (minus duplication)	185

Table 1.1: Search tools totals for intermediate care

The papers and reports were then organised into groupings as illustrated in table 1.2.

The organisation of the papers and reports assisted the researcher to screen references for relevance and appropriateness.

Intermediate care							
Classification	General	Evaluation	Quality of life	Older people	Effectiveness	Functional ability	Total
Unclassified	48	5	1	9	1	3	67
Staff roles	10		1				11
Service developments	8	11		2	2		23
Mental health	3						3
Service models	8	22			3		33
Extra care housing	1						1
Early discharge	8	9		3			20
Prevent admission	6	3					9
Rehabilitation	5					1	6
Experiences	1			2			3
Hospital at home		7					7
Expenditure / cost analysis					1		1
Equipment	1						1
Total	99	57	2	16	7	4	185

Table 1.2: Classification of the papers from the systematised review

1.3 The Grey Literature

Grey literature was accessed through the European Association for Grey Literature Exploitation (*EAGLE*). This is a co-operative network for identification, location and supply of grey literature through national centres participating in Systems of Information for Grey Literature in Europe (*SIGLE*). Access to this network can be made via the British Library (www.bl.uk/services/documents/dsc.html). Although this is a useful method of tracking down the grey literature, at this time it was not possible to identify any grey literature in respect to intermediate care.

1.4 The Development of Intermediate Care

Intermediate care emerged out of the inherited economic pressures of the 1980s. During this period the NHS came under pressure (by the government of the time) to tackle weaknesses in the organisation and management of health services (Ham 1996). Changes in how health care was to be delivered were based upon a need to reduce public expenditure, reallocation of resources and an increasing older population (Spurgeon 1991, Allsop 1995, Ham 1996, Office of Population Censuses and Surveys 2001). The changing balance of power within the NHS and the strengthening position of primary care, led to a need for commissioners of services to look at alternative patterns of care for people. Care services focusing on maximising independence and facilitating re-enablement (government terminology for promoting functional ability). This was not about creating a new service, but merely a new level of service.

Initial guidance and funding was given to optimise use of bed capacity to help relieve the increasing pressure on acute beds (DoH 1997/98). The foundation work was

primarily assisted by the work undertaken by the Kings Fund (Steiner & Vaughan 1996, Steiner 1997, Steiner et al 1998). The priorities and planning guidance from the NHS stressed the importance of partnership working and offered guidance to promote integrated services to improve efficiency (DoH 1996). This guidance recommended strengthening the *'whole-systems approach'* (working as one across agencies) and to bring together a range of multi-agency/disciplinary services to develop a different transition in the patient's pathway of care. This approach seemed simple, yet there was no supporting evidence to support the notion that it would be any different to past attempts at breaking down professional boundaries. There is evidence that past attempts at promoting collaboration between agencies had failed (DHSS 1973, DHSS 1982, DHSS 1984, DHSS 1986, DHSS 1988, DoH 1990). The promotion of collaborative working in government policy can be traced back to the early 1970's (DHSS 1973). This is reinforced by Loxley (1997) who stated that consecutive government policy over the last thirty years appear to have failed in facilitating effective collaborative working between agencies:

"Collaboration is recognised as difficult, even risky and dangerous. As well as knowledge, skills, structures and processes it requires trust to work alongside, maybe even to hand over responsibility to, others".

Loxley 1997, page 91

The new ethos in policy development during the early mid 1990's was promoting a *'whole systems approach'* to care delivery by working collaboratively. The whole systems approach was to enable commissioners of individual services to use all their available fragmented resources to form effective joint services across both health and social agencies. This change in policy direction was to ensure that the local health and social care agencies would combine forces to use their limited resources to their full potential. Working in partnership would deliver a *'seamless service'* for the

patient (DoH 1996). The term 'seamless' was, one of the 'buzzwords' for the government to denote whether a patient would have a smooth transition of care between agencies and that the right level of service would be delivered at the right time and in the right place (Steiner 1997). There is no evidence in the literature as to why this government policy directive should succeed when previous policies have failed.

Limited funding was made available in 1997 by the DoH, to assist in preventing a winter bed crisis. Guidance was given to optimise use of bed capacity (DoH 1997). The objective was to relieve pressure on acute beds over the winter period by maintaining people at home. Where possible this happened by strengthening health and community services at a time when people are at their most vulnerable. The purpose was to shift the balance of support towards health improvement and retaining independence in the community. This would result in less pressure on acute beds at a time of great need (DoH 1996, DoH 1997, DoH 1998, Phelps & Shepperdson 1998). Steiner's conceptual framework of intermediate care was to reduce the burden on the acute sector bed state during the winter period when demand would be high (Steiner 1997). The focus was to be on rehabilitation, offering choice, promoting independence and reducing cost implications on the acute sector (Steiner & Vaughan 1996, Steiner 1997, Bowman & Black 1998, Unsworth et al 2000).

At the same time, the term of the 'bed-blocker' became commonplace (Robinson 2002). The bed-blocker was an individual who no longer required hospitalisation in an acute bed, but could not to be discharged - thus blocking an acute bed. The reduction in long-stay NHS beds and the increasing number of inappropriate social

admissions did not assist in increasing pressure on acute beds (Capewell 1996). The reduction of long-stay NHS beds started to affect the acute hospitals ability to manage capacity and resources. The noticeable increase of inappropriate social admissions to these beds was causing a crisis when demand was high for the beds (Capewell 1996, Enderby & Stevenson 2000). A 'social admission' is when an individual is admitted to an acute hospital when their primary need is social and not a health need requiring an acute hospital stay.

Intermediate care was the service proposal designed to reduce the pressures on the acute beds. Intermediate care services were developed and supported in many different ways. The structure of the intermediate care services were quite wide-ranging, ranging from single agency models of predominately social or more health based care, such as nurse-led step down facilities. Funding was not constant, short-term projects demonstrating different models of care were set up across the country in response to the predicted winter pressures. Without firm guidance, different levels and types of services were developed across the country (Anglia & Oxford Intermediate Care 2000, District Audit 2002). It was not until January 2001, a gap of nearly five years before any clear guidance or direction on the development of these services were published to support service commissioners and providers of care (DoH 2001).

Government policies were starting to affect service development and influence intermediate care developments (DoH 1997a, 1998a, 1998b, 1998c, 1999, 1999a, 2000 2001c, 2002c, NHS Executive 2000, 2000a). Additional policies were placing increasing pressure on intermediate care to be the main driving force in delivering the policies objective. This resulted in placing even greater pressure on both

commissioners and providers of services (DoH 2000b, 2000c, 2002e, 2002f, 2003c). Without the infrastructure and resources to support change, then the concept of intermediate care would certainly fail (Barker 2004). It is possible to observe how the relationship between policy and local pressures has shaped intermediate care development. Using the literature it is possible to develop a timeline to show the relationships between policy and local influences. Figure 1.1 represents a conceptual map to demonstrate diagrammatically the complexities and influences affecting the development of intermediate care from the first policy influences (conception) until present day. The conceptual map visualises how government policy has initiated a change in the development of intermediate care. It shows how intermediate care has then responded to the policy influence. It is possible to predict each stage of development as the timeline progresses. The community care agenda has been the main influencing factor on the changing framework of health and social care delivery across primary. It has influenced the development of intermediate care, changes in care provision and increasing demands on scarce resources. (DoH 1990, Black 1996).

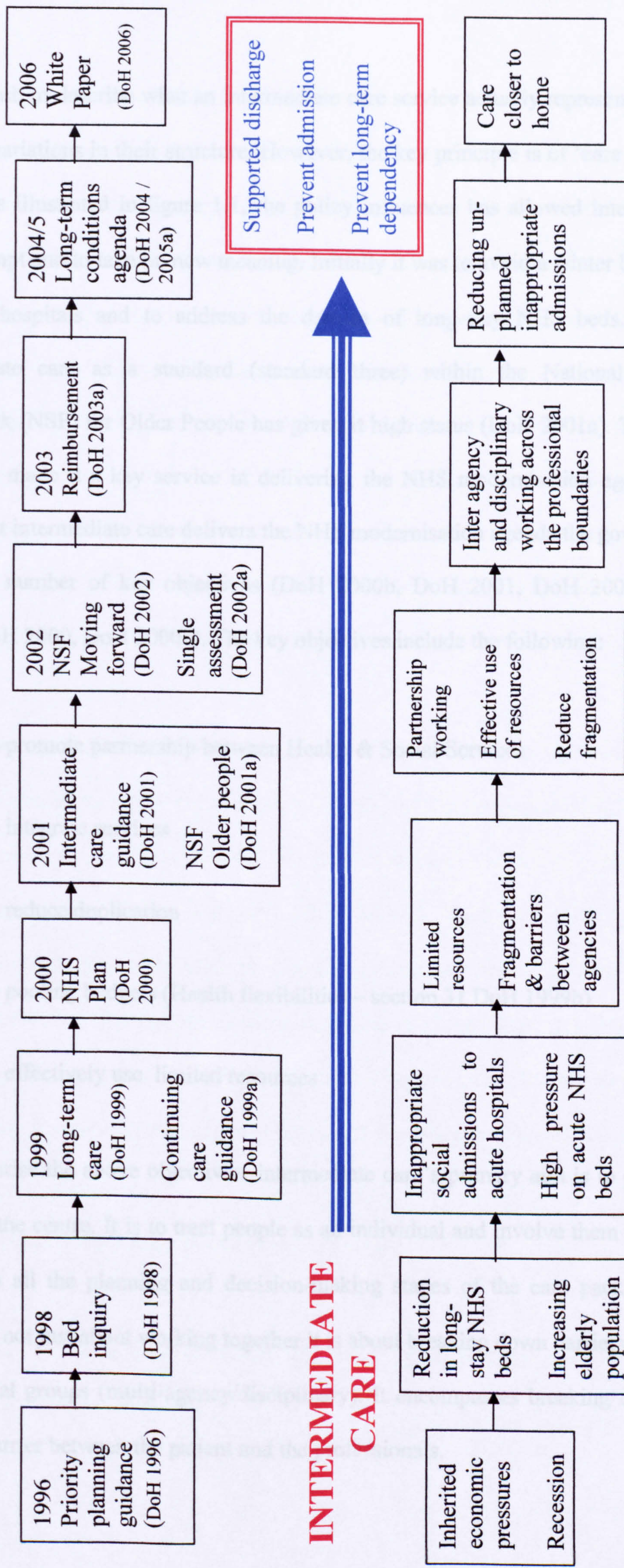
1.5 An Intermediate Care Service

There is an array of interchangeable terminology used to describe what an intermediate care service represents (Wade 2004). The literature describes numerous examples of what could contribute to an intermediate care service. Services ranging from pre-admission screening services, early discharge acute ward services, nurse-led units, prevent admission services etc. Any of these examples could be residential or non-residential based. They could be located in the community or an acute hospital (Vaughan & Lathlean 1999, Steiner 1997, Stevenson & Spencer 2002, Wade 2004).

CONCEPTUAL MAPPING OF THE DEVELOPMENT OF INTERMEDIATE CARE:

TIME LINE – 10 years

GOVERNMENT POLICY



INFLUENCES

Figure 1.1 – Conceptual Map

It is difficult to describe what an intermediate care service actually represents. There are such variations in their structure. However, the key principle is of ‘care closer to home’. As illustrated in figure 1.1, the policy influences has allowed intermediate care to adapt and to take on new meaning. Initially it was to avoid a winter bed crisis in acute hospitals and to address the demise of long-stay NHS beds. Placing intermediate care as a standard (standard three) within the National Service Framework (NSF) for Older People has given it high status (DoH 2001a). This high status has made it a key service in delivering the NHS modernisation agenda. To ensure that intermediate care delivers the NHS modernisation agenda the government has set a number of key objectives (DoH 2000b, DoH 2001, DoH 2001a, DoH 2001c, DoH 2000, DoH 2000c). The key objectives include the following:

- To promote partnership between Health & Social Services
- To integrate services
- To reduce duplication
- To pooling budgets (Health flexibilities – section 31 DoH 1999b)
- To effectively use limited resources

To summarise the above objectives, intermediate care’s primary aim is to place the patient at the centre. It is to treat people as an individual and involve them and their carer(s) in all the planning and decision-making stages of the care package. The concept is not just about working together it is about breaking down barriers between professional groups (multi-agency/disciplinary). It encompasses breaking down the greatest barrier between the patient and the professionals.

The key feature of what contributes an intermediate care services appears to focus on promoting independence based upon active rehabilitation, but time-limited. Being time-limited has caused problems in both design and use of some services (Wade 2004). DoH guidance advocates a time-limited service provided within a maximum of six weeks and often as little as five days or one to two weeks or less (DoH 2001). In July 2002 Alan Milburn (Health Secretary) announced that the government was going to legislate that all intermediate care should be provided free of charge at the point of delivery whether delivered by Health services or Local Authorities (DoH 2003d). Local Authority services are normally means tested and incur a charge. The change in law was going to impact on their core business and management processes. This change in policy direction was designed to promote partnership working.

An intermediate care service should not be led by any one single organisation, pure integration should be a shared partnership. To support the development of integrated intermediate care services the DoH published the section 31 partnership arrangements in the Health Act 1999 (DoH 1999b). This gave NHS and Local Authorities the opportunity to work together to improve services. This could be achieved either by joining up existing services, or to develop new coordinated service opportunities by pooling budgets, delegation of certain functions, including lead commissioning with other organisations and integrated provision.

1.6 Standard Definition of Intermediate Care

The diversity of definitions illustrates why an array of different intermediate care service models were developed:

“In-hospital intensive multidisciplinary support or health-led acute or chronic care at home, ongoing support consisting mainly of therapy and social care and continuing care in residential or nursing home”.

LeMesurier & Cumella 1999, page 27

“A function concerned with transition from medical dependence to personal independence, focusing on restoration of self-care abilities...meeting the needs of those people who are physiological stable or predictable following an acute episode of illness but who can improve the quality of their lives, increase their ability to live independently, and minimise their longer term dependence on health services through timely therapeutic input”.

Steiner et al 1998, page 1

“Those services which will help divert admissions to an acute care setting through timely therapeutic interventions which aim to divert a physiological crisis or offer recuperative services at or near a person’s own home”.

Vaughan & Lathlean 1999, Page 4

The definitions supplied by Steiner et al (1998) and Vaughan & Lathlean (1999) could be representative of any rehabilitation or enabling service. They both however, omit one of intermediate care’s greatest strength – partnership working. Partnership working is one of the key objectives of an intermediate care service. Many early intermediate care services made the same mistake. They either re-named an existing service as ‘intermediate care’ or added an addition to existing services working in isolation (Wade 2004).

The definitions of intermediate care are a little ambiguous and diverse. There are clear themes in the literature to where intermediate care should or should not take place (Steiner & Vaughan 1996, British Geriatrics Society 1998, Steiner 2001, DoH 2001, District Audit 2002). There have been many attempts at defining intermediate

care (Steiner 1997, Steiner et al 1998, Vaughan & Lathlean 1999, LeMesurier & Cumella 1999, DoH 2001). The definition incorporated in the intermediate care circular (DoH 2001), appears to be the accepted definition for intermediate care. However, it is not a definition in the true sense, but more about aims and objectives of service delivery. It states that intermediate care is:

- Targeted at people who would otherwise face unnecessarily prolonged hospital stays or inappropriate admission to acute in-patient, long-term residential care, or continuing NHS in-patient care.
- Provided based on a comprehensive assessment, resulting in a structured individual care plan that involves active therapy, treatment or opportunity for recovery.
- A planned outcome of maximising independence and typically enabling patient/users to resume living at home.
- Time-limited, normally no longer than six weeks and frequently as little as 1 to 2 weeks or less: and
- Cross professional working, with a single assessment framework, single professional records and shared protocols.

DoH 2001, page 6

Intermediate care has slowly evolved since its formation, but to date there is still no one representative example of what an intermediate care service should be or how it should work. The confusion has been caused by how the term ‘intermediate care’ has been used. There is a general agreement that intermediate care should be a short-term intervention to promote and preserve an individual’s independence for those who might otherwise face unnecessarily prolonged hospital stays or inappropriate admissions to hospital (Stevenson & Spencer (2002). The intermediate care circular

(DoH 2001) page 6, states very clearly that intermediate care should not be any form of transitional care that does not involve active therapy or other interventions to maximise independence (for patients who are ready to leave acute in-patient care and are simply waiting for long-term packages of care). That it should be based upon longer-term rehabilitation or support services and not rehabilitation services that form part of acute hospital care.

The circular also states that Intermediate care should be an integrated part of a seamless continuum of services linking health promotion, preventative services, primary care, community health services, social care, and support for carers and acute hospital care. That it should be generally provided in community-based settings or in the patient's own home and that it may be provided in discrete step-down facilities on acute hospital sites. An intermediate care service must be time limited, typically lasting no more than six weeks.

It is clear from the literature that even the government has had difficulty in defining intermediate care. The difficulty in defining an intermediate care service has almost been its strength, because many services have developed by utilising existing resources to meet local needs. There is no answer to what actually constitute an intermediate care service? As defined by the concise Oxford dictionary intermediate means:

“Coming between two things in time, place, order, character, etc.....”

The Concise Oxford Dictionary 1995, page 711

1.7 Intermediate Care Research

The evaluation evidence for intermediate care is fragmented and inconclusive (Scotland 2000, Stevenson & Spencer 2002, Martin et al 2004, Wade 2004). Early studies looked at defined services such as 'hospital at home schemes' (Wilson 1999, Gunnell et al 2000, Coast et al 1998, Shepperd et al 1998, Shepperd & Iliffe 1998, Donald et al 1995) and 'early discharge schemes' (Nixon & Whitter 1997, Mistiaen et al 1997) or admission avoidance (Peet et al 2002). There is evidence of effectiveness, but the evidence is limited to one or more outcomes and does not evaluate all elements of an intermediate care service (Hyde et al 2000, Hitchins 2000, Griffiths et al 2000, Brooks, Maughan 2001, Trappes-Lomax et al 2001, 2002, Chell & Incs 2003, Housing 21 2003, Roe et al 2003, Stevenson & Spencer 2004, Walsh et al 2005). Much evidence is local and not formalised by publication. Martin et al (2004) support this and concluded in their study that more evidence exists for the effectiveness of intermediate care than is often claimed. The DoH document 'Intermediate Care: Moving Forward' (DoH 2000) acknowledges the importance of local evaluations, but highlights the need for establishing the credibility of these services.

In September 2001, the Policy Research programme (DoH) and the Medical Research Council jointly commissioned three major research projects:

1. A National Evaluation of the Costs and Outcomes of Intermediate care services for Older People. (Professor Gillian Parker – Nuffield Community Care Studies Unit, University of Leicester).

2. A Comparative Case study and national Audit of Intermediate Care Expenditure (Professor Gerald Wistow, Nuffield Institute for Health, University of Leeds).
3. A Multi-centre Study of the Effectiveness of Community Hospitals in Providing Intermediate Care for Older People. (Professor John Young, St. Lukes Hospital, Bradford).

These three studies had five main aims. Firstly, to establish the range, spread and speed of the developments of all intermediate care services across England. Secondly, to explore the views of intermediate care leads on the benefits and challenges of implementing intermediate care policy. Thirdly, to assess the impact of intermediate care on the service system as a whole and on the individual service-user (service system relates to the influence of implementing intermediate care on the core business of organisations working together). Fourthly, to explore the costs of intermediate care schemes in relation to outcome and finally to synthesise evidence from this on the costs and outcomes of different models of intermediate care and on best practice.

Each of the three research studies had a series of ambitious aims. Leading authors on intermediate care prior to the commissioning of the studies reported fragmentation and inconsistency caused by the lack of early guidance on the development and implementation of intermediate care (Steiner 1997, Steiner & Vaughan 1997, Steiner et al 1998, Pollock 2000, Hitchins 2000). Some of the difficulties experienced by the research teams could have been anticipated, because allocation of funding was not ring-fenced and there were no mechanisms in place to ensure funding was spent on developing intermediate care inline with the intermediate care circular which had only been published a few months earlier (DoH 2001). Previous publications raised

concerns about definition, structure and lack of coordination (Steiner & Vaughan 1996, Steiner 1997, Vaughan 1998, Steiner et al 1998, Vaughan & Lathlean 1999, Stevenson 2000).

The first study - A National Evaluation of the Costs and Outcomes of Intermediate Care for Older People was published in January 2006 by Professor Parker and her research team (Barton et al 2006). Their study included a postal survey to intermediate care coordinators to ascertain their views on what helps or hinders intermediate care policy implementation (N=106). It also included, five case studies across five Primary Care Trusts (PCT) involving N=4000 episodes of care. The quantitative data collected reviewed routine patient specific data. Qualitative data were collected by undertaking 82 interviews with professional staff involved in the delivery of intermediate care and a systematic review of evidence for the effectiveness of intermediate care (n=109 peer-reviewed papers).

A weakness of this study is that it excluded the patient's experience and concentrated on a professional underpinning knowledge. The patient's experience is important as it guides their own goals and aspirations. What a professional perceives as important may not be the same for the patient. It did look at outcome measures, but did not explore them in great depth. The study did reveal significant levels of diversity nationally in the development of intermediate care and showed how the official DoH definition had been implemented in local systems (DoH 2001). This diversity was not helped by the fact that many service providers had difficulty supplying the research team with simple descriptive data on their intermediate care service provision.

The research suggested that it would take some considerable time for services to overcome the legacy of the ad-hoc, evolutionary developments characterised in its early development. The views on the benefits and challenges of implementing intermediate care acknowledged partnership working and the drive to reduce pressures upon acute beds. The main concerns centred upon capacity and funding issues. Baseline data revealed that older people were the main recipient. In relation to cost and outcome, the study found that admission avoidance services were associated with cost savings whilst a supported discharge service tended to lead to increase costs. This statement is a generalisation. Comparing costs is very difficult because there is not one single charge for every length of stay. Individuals are coded depending on their diagnosis and the diagnosis will identify the length of stay. In conclusion, this first study has reinforced the concerns previously raised in the literature (intermediate care is difficult to evaluate).

The second study led by Professor Wistow to undertake an audit of expenditure on intermediate care was published by his research team in April 2005 (Institute of Health Sciences and Public Health Research 2005). The research team equally had difficulty in obtaining comprehensive data from intermediate care services. The original intention was to estimate expenditure on intermediate care. The NHS Plan (DoH 2000, page 71) stated that there would be an extra £900 million investment by 2003/4 in intermediate care and related services to promote independence and improve quality of care for older people. The research team had difficulty identifying the funding streams. The major restructuring of health services during the data collection period and the fact that monies allocated by the government were not ring-fenced nor given a budget line complicated the issue of identification. Other

influencing factors were the geographical coverage of services and that health and Local Authority boundaries were not coterminous.

The team realised early in their study that there was great variation between localities in the organisations and co-ordination of intermediate care services. It soon became apparent that the team would not be able to undertake a full comprehensive audit as previously anticipated, due to these compounding factors. The national audit element of the study was changed to be undertaken in the north of England. The target area was the former DoH North, West, and Northern & Yorkshire regions. This geographical area included 92 PCTs which represented approximately 30% of the total English PCTs (DoH 2002 b). The research team acknowledged reservations about the data reported, but felt confident that the responses illustrated a range of experiences in implementing and running intermediate care services. Unfortunately, the difficulties in obtaining accurate data have resulted in a generalisation on expenditure. The research team were unable to track all expenditure from total government allocations in any one financial year. This study further supports the literature and concludes that intermediate care is difficult to evaluate, because of the ad-hoc way it was implemented and directed by government policy.

The third study was a multi-centre study of the effectiveness of community hospitals in providing intermediate care for older people led by Professor John Young. Professor Young's research team published their results in July 2005 (Green et al 2005). This was a much focused study looking at only one element of what contributes a transitional service between acute hospital care and a transitional stage before home. It excluded multi-agency working.

This study concluded that care in a locality based community hospital was associated with greater independence for older people than care in wards for elderly people in a district general hospital. The study also focused on patient outcome and has therefore contributed to new knowledge. The only reservation is that the study's parameters were restricted. It only looked at one element of what contributes an intermediate care type experience, but did not look specifically at intermediate care per se. This study did however contain three complementary elements. It included a single blind RCT, prospective trial to investigate medium term (six months) patient and carer outcomes (490 frail older people in need of rehabilitation following an acute illness that had necessitated an acute stay), a qualitative study designed to provide information about the similarities and differences between Community Hospitals (CH) and District General Hospitals (DGH). This was to provide information about the extent to which there is a shared understanding of CHs and DGHs care between staff, patient and the carer(s). (Interviews with staff CH n= 22 and DGH n=20, patient CH n=15 and DGH n=11 and Carers n=8) and an embedded health economic study to investigate cost-effectiveness. This study involved the same 490 frail older people as above. The health outcome measure used were the EuroQol EQ-5D recorded at baseline, one week after hospital discharge and at three and six months.

This study's conclusion was that post-acute care for older people who are medically stable, but in need of rehabilitation can be adequately cared for in community hospitals. Intermediate care guidance does advocate delivery in discrete step-down facilities (DoH 2001). However, the reservation to this study's outcome is that it explores in-patient care within two defined locations (residential acute and primary care). The study is not exploring intermediate care in the true sense. It is trying to

justify the existence of community hospitals as a suitable location to deliver transitional care between acute hospital and home.

Although, the researchers undertook three separate complementary studies their outcome measures related to patient function and quality adjusted life years. The result was that these outcomes were better for those who received their rehabilitation in a community hospital compared to an acute site. Length of stay was similar (median 22 day for community hospitals and 20 days for an acute site). Carer burden was comparable, but the carer preferred the homely environment of the community hospital. The researcher's conclusion was that compared to acute only based care, people receiving their care in a community hospital had at least as good or possibly superior independence at six-months. The cost-effectiveness of post-acute rehabilitation in a community hospital was comparable to the gold standard acute service. The research team made too many generalisations and assumptions to draw to this conclusion.

The three complementary elements of the third study only scratched the service of what contributes to actual intermediate care. Their weakness is that they did not include partnership working with other agencies. They were too narrow in their area of exploration. The study is not really about intermediate care, it is reviewing the difference between acute and step-down care. Although, the study does review the patient post discharge from the step-down facility it does not review dependency and care needs. It reviews quality adjusted life year issues, but not care infrastructures. In support of the study they did achieve their aim. The missed opportunities quoted above really rest with the Policy Research Programme and the Medical Research

Council for not commissioning a more over arching study of a multi-agency/disciplinary intermediate care service to compliment the other two studies.

A conclusion can be drawn from the three commissioned studies. The conclusion is that it is almost impossible to undertake a national evaluation of intermediate care. The three studies support the nebulous nature of the vocabulary used to describe an intermediate care service and that it is not easily categorised. Other studies have made assumptions, without robust evidence because they have evaluated singular elements and are not whole systems. There is an acknowledgement that intermediate care is complex and multi-faceted (Stevenson & Spencer 2002, Martin et al 2004). The diversity of intermediate care is challenging and as raised by Martin et al (2004) there is a need for careful monitoring and evaluation of the effectiveness of the different approaches to intermediate care in general. The idea of intermediate care is still considered in the literature to be new (Young & Stevenson 2006). It is felt to still be facing many testing challenges before it can firmly establish itself as a fully integrated mainstream service and to fully realise its full potential (Barker 2004).

As highlighted in the document NSF for Older People - Supporting Implementation, Intermediate Care: Moving Forward (DoH 2002) page 3 there are still things that need to be addressed and these include the importance of ensuring that people with mental health problems, including cognitive impairment, have access to intermediate care services. There must be effective clinical governance frameworks in place to ensure the safety of the patient and that standards of care remain high. There needs to be an appropriate level of medical assessment and support for the patient and the role of housing in promoting independence must not be forgotten.

Intermediate care was initially piloted across the country without any clear guidance or clarity on what constitutes an intermediate care service (Vetter 2005). There can be benefits in this approach for local commissioners, the strength being that local services are 'needs led' rather than nationally imposed. The difficulty with setting up pilots without sound foundations is that services are often developed within tight restraints or resource implications. This results in either fragmentation or restricted access. The key limitation in the literature is effective and concise evaluation of intermediate care. Stevenson & Spencer (2002) confirms that there is a large and growing body of research evidence to support proposals to introduce intermediate care. The main limitation is that it does not compare like with like, because there are still gaps in the understanding of what contributes to an intermediate care service.

The evidence is starting to demonstrate positive outcomes, but this evidence is limited in its approach and coverage of a 'whole systems' intermediate care services. The difficulty in evaluating similar examples of intermediate care is that they do not appear to exist and evaluations have been unable to compare like for like. Intermediate care services have evolved, part of this evolution has been influenced by policy direction, but equally they have responded to local need.

A national intermediate care survey undertaken by the District Audit was published in 2002 (District Audit 2002). The District Audit is an agency of the Audit Commission appointed by the DoH to monitor public expenditure and help those responsible for public services to achieve economy, efficiency and effectiveness. Between November 2000 and May 2001, the District Audit carried out a survey of Intermediate Care schemes to review current practices, identify service type peer groups and to compare the costs of service provision (District Audit 2002). The DoH

considered that a national survey would shed light upon the current examples of service provision and identifying key developmental themes. What they did not envisage is the true diversity of variations to service models. The majority of services had been set up before any guidance. Many services had been set up as projects using only local available resources and very little funding resulting in services being unable to maintain capacity and met local need. The key points from the district audit further support the complex nature of intermediate care:

- Providers of intermediate care range from large acute teaching trusts through to small district general hospitals, along with social services departments and newly evolving primary care trusts.
- The vast majority of intermediate care services (70%) seek to prevent hospital admissions or residential care placements and support patient discharge from hospital.
- Joint social service and NHS funding arrangements are increasingly the norm, supporting 46% survey respondents.
- Intermediate care services are typically small in capacity. The average level of activity for intermediate care services is 246 service users per year.
- The comparative revenue costs of services indicate a variation in size with the lower quartile at £80,000 per year and upper quartile at £300,000.
- Only a small portion of intermediate care services (10%) specialise in a single medical condition or disease group.
- Despite current wide spread pressures on A&E services, only 10% of intermediate care services were based in, or closely linked with an A&E department.

- Intermediate care services appear largely successful in returning service users to their own home environment. Surveyed services showed that an average 82% of services users returned home.
- Over half of all intermediate care services provide both social care and health care
- Dedicated medical staff input to intermediate care is not widespread, only 39% of responding services reported a specific medical input.
- A key theme of intermediate care is rehabilitation and 76% of schemes surveyed had at least some therapy input.

District Audit 2002 page 4

It is not surprising that it is so difficult to define the true diversity of intermediate care. There is such variation in location and infrastructures. The District Audit's report (District Audit 2002) has been helpful in directing this study's focus. It is clear from the literature that the concept of intermediate care is an important element of modernisation within NHS (Pencheon 2002). Formally placing intermediate care as one of the key standard within the NSF for Older People (DoH 2001a) has placed the focus of the future developments around older people's services rather than purely adult services.

Since 1996, the concept of intermediate care has led to a wide and diverse set of services. Intermediate care services have been developed to meet the individual needs of the local population. Clearly, resources and financial restraints have influenced these developments. Although this diversity has been one of its strengths, by giving intermediate care the ability to adapt to a wide range of circumstances and by meeting individual needs (DoH 2002). Equally, this diversity has also led to confusion and fragmentation by causing inequality of provision and access,

duplication of effort, reduced cost effectiveness and loss of impact. The assumption is that many services preceded national guidance and then did not meet the definitions within the policy directive (DoH 2001). However, the literature is supportive and there is evidence that intermediate care services are promoting access to other groups (DoH 2002a).

1.8 Challenges for Intermediate Care

One of the five aims of the government's national evaluation of intermediate care was to explore the views of intermediate care leads/coordinators on the benefits and challenges of implementing intermediate care policy (section 1.7). One of the milestones in the NSF for Older People was to have in place a designated and jointly appointed intermediate care coordinator to ensure continuity across agencies (DoH 2002, Stevenson 2001a). Hilda Parker (Lead researcher, Leicester-Birmingham National Evaluation of Intermediate Care team) wrote to all intermediate care coordinators to help with a national survey of intermediate care policy implementation and service provision. The researchers wanted to ascertain what were the 'barriers and levers' faced by those responsible for implementing intermediate care. Their rationale was that what was occurring locally would inform future policy developments.

The outcome presented the researchers with a web of entangled constraints, influences and challenges. The complexity of intermediate care presented individuals and organisations with many difficulties when designing, planning and implementing their intermediate care service. Clearly these constraints would need to be resolved or understood before implementing a local intermediate care service. There is evidence in the literature that reinforced these concerns (Steiner & Vaughan 1996, Pollock

2000, Martin et al 2004, Pencheon 2002, Stevenson & Spencer 2004, Wade 2004).

To assist in understanding the issues raised by the national research and the literature a 'spider graph' has been developed (figure 1.2).

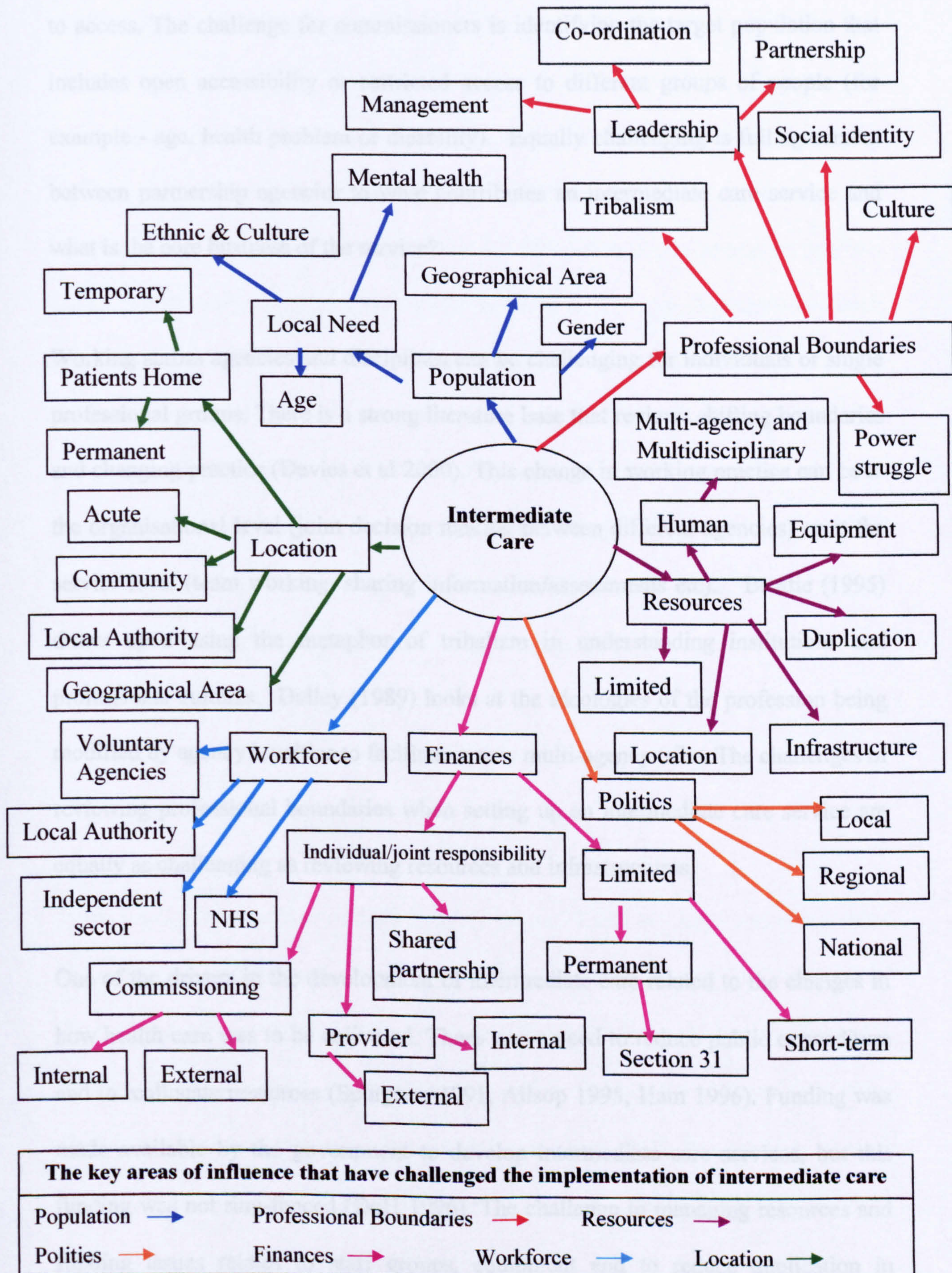


Figure 1.2 – The key areas of influence that have challenged the implementation of intermediate care

The spider graph has been developed using seven board influences that includes population, professional boundaries, resources, politics, finances, workforce and location. Intermediate care services have predominately been set up for older people to access. The challenge for commissioners is identifying the target population that includes open accessibility or restricted access to different groups of people (for example - age, health problem or disability). Equally challenging is full agreement between partnership agencies to what contributes an intermediate care service and what is the core business of the service?

Working across agencies and disciplines can be challenging for individuals or single professional groups. There is a strong literature base that reviews shifting boundaries and changing practice (Davies et al 2000). This change in working practice can be at the organisational level (joint decision making between different agencies) or at the service level (team working, sharing information/assessments etc). Beattie (1995) draws upon using the metaphor of tribalism in understanding institutions and professional cultures. Dalley (1989) looks at the ideologies of the profession being modified by agency loyalties to facilitate a new multi-agency tribe. The challenges of reviewing professional boundaries when setting up an intermediate care service are equally as challenging as reviewing resources and infrastructures.

One of the drivers in the development of intermediate care related to the changes in how health care was to be delivered. There was a need to reduce public expenditure and to reallocate resources (Spurgeon 1991, Allsop 1995, Ham 1996). Funding was made available by the government to develop intermediate care services, but this funding was not ring-fenced (DoH 1996). The challenge in managing resources and funding issues relates to staff groups, equipment and to reduce duplication in

working practices and the allocation of these resources. This could relate to options of co-location of staff and sharing of equipment not just with different disciplines within the same organisation, but different agencies. There were options for agencies to pool budgets (DoH 1999b).

From the wealth of information illustrated in figure 1.2, it is possible to piece together the internal and external influences, all which further demonstrate the complex nature of intermediate care. Meredith (1996) compared community care to a jigsaw, where every piece is individual and has its own different characteristics. Each key influence identified in figure 1.2 must support the next. Intermediate care is a jigsaw and you need to know how each piece interlinks in order to understand the next stage. Placing all the pieces into a visual spider graph helps to visualise and comprehend the true complexities rather than reading an endless list. In the development of any service, any partnership organisation will bring with it its own set of values, priorities, preferences and ideas and this further complicates the implementation process.

1.9 Gaps in the Literature:

There are clearly a number of gaps in the literature. There is a large knowledge base on promoting intermediate care developments. The lack of and inconsistency of direction by government policy has resulted in fragmentation and variation in service models. This has resulted in limitations within the evidence base. There is evidence that intermediate care has evolved since 1996 (Pencheon 2002, Stevenson & Spencer 2002, Martin et al 2004, Wade 2004). Intermediate care has responded to a range of different pressures as illustrated in figure 1.1.

The term intermediate care has adopted a variety of different meanings and service configurations (Stevenson & Spencer 2002, Young & Stevenson 2006). There are clearly high expectations of intermediate care to promote independence and improve the quality of life of older people and to reduce pressures within secondary care (DoH 2001, Barker 2004). Concerns are raised about the exclusion of people with memory impairment (Nuffield Institute for Health 2002, Dementia Voice 2004). One of the greatest gaps in the literature is the issue relating to access for older people from different ethnic or cultural backgrounds. This includes people from the travelling community (gypsy community or new age travellers) and homeless people.

1.10 Critical Understanding of the Literature

As discussed in section 1.9 there are gaps in the literature. On closer analysis, the intermediate care literature falls into one of eight general categories.

- **Policy development**
(reference example - DoH 1996, DoH 1997, DoH 1997a, DoH 1998, DoH 2001, DoH 2001a, DoH 2001c)
- **Partnership working across agencies**
(reference example - DoH 1990, Allsop 1995, Ham 1996, DoH 1997a, DoH 1998a, DoH 2000, DoH 2001a, DoH 2002c)
- **Early (supported) discharge from hospital initiatives**
(reference example - Nixon & Whitter 1997, Mistiaen et al 1997, Richards et al 1998, Rudd et al 1998)
- **Prevent admission to hospital schemes**
(reference example - Maughan 2001, Peet et al 2002)
- **Hospital at home schemes**

(reference example - Wilson 1999, Gunnell et al 2000, Coast et al 1998, Shepperd et al 1998, Shepperd & Illiffe 1998, Donald et al 1995)

- **Economic evaluations**

(reference example - Hyde et al 2000, Hitchins 2000, Griffiths et al 2000, Brooks, Maughan 2001, Trappes-Lomax et al 2001, 2002, Chell & Incs 2003, Housing 21 2003, Roe et al 2003, Stevenson & Spencer 2004, Walsh et al 2005)

- **Opportunities for other professional groups and agencies**

(reference example - Unsworth et al 2000, Wiles et al 2001, Nuffield Institute for Health 2002, Stevenson & Spencer 2002, Nancarrow & Mountain 2002, Cornes et al 2003, Crouch 2003, Manthorpe et al 2003, Young & Stevenson 2004, Martin et al 2004, Wade 2004)

- **Patient outcomes**

(reference example - Audit Commission 1997, Kings Fund 2000, DoH 2001, DoH 2001a, Housing 21 2003, Andrews et al 2004, DoH 2006)

Early initiatives were set up very quickly in response to the policy decisions that were not consistent (DoH 1996, 1997, 1998, 1999, 2000, 2001, 2001a). These policies did not include effective monitoring or evaluation (Martin et al 2004, Wade 2004, Young & Stevenson 2006). Some of the early evaluations methodologies were not robust enough to accommodate the complexity of the intermediate care provision (Stevenson & Spencer 2002).

One criticism of the early studies is that they focused on intermediate care schemes that addressed a single problem or discipline (e.g. Shepperd and Illiffe 1998, Steiner et al 2001a). The majority of early evaluations involved the use of a RCT (e.g. Sheppard et al 1998, Richards et al 1998, Gunnell et al 2000, Griffiths et al 2001, Steiner et al 2001, Green et al 2005). There are merits in incorporating a RCT

approach, but there are also weaknesses. The main weakness of using a RCT in evaluating intermediate care is that it is not possible to evaluate a full system (all elements that contribute to an intermediate care service) or compare like for like. The issue of RCTs is further discussed in chapter 3, section 3.7.2.

Much of the early literature relates to opportunities of working differently (Steiner & Vaughan 1996, Stevenson 2001). The development of intermediate care has been policy driven (Stevenson & Spencer 2002, Wade 2004). There is minimal evidence in the literature of involving older people in the development of intermediate care (Andrews et al 2004), utilising the voluntary agencies (Cornes et al 2003), harnessing the volunteer workforce (Manthorpe et al 2003) or the independent sector (Independent Healthcare Association 2002). There is evidence in the literature of developing the professional and statutory workforce (Nuffield Institute for Health 2000, Clegg 2001, Royal College of Physicians 2001, Wiles et al 2001, Stevenson 2001a, Herbert & Painter 2002, Nancarrow & Mountain 2002, Crouch 2003, Low 2003). A review of the workforce has included the role of specialists groups such as pharmacists (Gray 2002) and geriatric medicine (MacMahon 2001).

1.11 Chapter Summary

The literature on the developments of intermediate care is disorganised and early research studies fragmented (Wade 2004, Martin et al 2004). The lack of government direction further complicated the situation. The array of examples of intermediate care services and inconsistent commissioning arrangements has not assisted the development of intermediate care. However, intermediate care has adapted and met local needs. The flexibility of the intermediate care is its strength. Later research

studies, although not comprehensive in their approach have shown that intermediate care is effective (Martin et al 2004, Wade 2004, Stevenson & Spencer 2002, Roe et al 2003, Young & Stevenson 2006). The literature has shown that there were specific influences on the development of intermediate care and these include political influences (government policy and local implementation), financial implications (high demand verses tight budgets), human resources (changes to the population demographics, staff infrastructures and expectations), general resources (demand and fragmentation between agencies), patient outcome (reduce demand on long-term care and future aspirations) and organisational barriers (lack of shared assessments, resources, trust between agencies and agreement to work differently).

There is clearly diversity in this literature. However, in all this diversity there is one common outcome measure and that is to reduce demand on the already over stretched services. This demand relates to enhancing the patients outcome in relation to:

- Quality of life
- Independence

The promotion of health and independence has been a driver in the modernisation agenda for the NHS (Wade, 2004). However, this chapter has concentrated on the development and evolution of intermediate care. It has not reviewed quality of life or independence. Chapter two will address this deficit and will explore these two elements.

CHAPTER TWO THE CONCEPTS OF HEALTH, QUALITY OF LIFE AND REHABILITATION

Chapter two examines the concepts of health, quality of life and promoting independence (rehabilitation). Within the intermediate care literature there are a number of underlying themes and assumptions made about an outcome of an intermediate care intervention. The promotion of health and independence was a key driver in the modernisation agenda for the NHS (Wade, 2004). The key influence to support that agenda has been intermediate care (DoH 2001, 2001a, 2002, 2002d). It is prudent to look at these concepts as they interlink into the intermediate care relationship between policy and outcome. A review of the literature at this point assists in understanding the underpinning values and theoretic influences on an individual's interface with intermediate care.

2.1 Introduction

It has become increasingly fashionable in health research to equate all non-clinical data with 'Quality of Life' (Bowling 2005, Bond & Corner 2004). However, this concept of quality and health is not something that can be easily measured or quantified (Rapley 2003). The literature illustrates a number of different emerging themes to why this had occurred:

- **Maintenances** - a general shift in medical preoccupation from the management of acute care to long-term conditions. No cure - therefore need to manage or slow down disease progression.

- Outcome measure - Government targets used as a tool to measure service outcomes comparing the effectiveness and efficiency of new and/or existing interventions.
- Business ethos – changes in the structure and management of the NHS. Attempts by consecutive governments to shift the power from medical profession to a business culture.
- User involvement – services-users consulted and fully involved in service decisions and developments.

Adapted from Bond & Corner 2004, chapter 6

The points raised by Bond & Corner reflect values that have influenced policy decisions and directions of travel, this is further illustrated in figure 1.1 (chapter 1). It is possible to associate these themes with the development and evolution of intermediate care. The literature outlines two main objectives for intermediate care. Firstly, a corporate demand and secondly, a person-centred approach (DoH 2001, 2001a). The corporate demand is directed by financial constraints, reducing demand on the acute sector and combining resources. In comparison, a person-centred approach involves enhancing an individual's quality of life and delaying reliance on future care needs. This further reinforces the decision to review these concepts in greater depth. It is felt that if these concepts were not reviewed, then the interpretation of the results in this study would have been put at risk.

2.2 Health and Quality of Life

Health is not a simply biological entity that survives in isolation from the real world, it overlaps with many psychological and social dimensions, not all of which can function in isolation (Thompson 1998). In reality, a positive perception of health is

difficult to measure. Its complexity and the lack of agreement over its definition have caused this dilemma (Bowling 2005). In measuring health, the subjectivity is complicated by whether the researcher is measuring actual or perceived and who is making that measurement. Does a quality life mean that an individual has good health? If an individual is considered as healthy, does this mean that they have quality of life? These statements are open to interpretation and require further debate and exploration. In a previous study, it was noted that there were many different opinions on what contributed to health and quality of life (Barker 2002). There were differences of opinion between the professionals and the patient as illustrated in figure 2.1. This difference of opinion is supported in the literature (Renwick et al 1996, Rapley 2003, Walker 2005). As noted by Wanless (2004) a considerable amount of research evidence has been amassed on the difference of opinion between professionals and the patient.

Scenario: An elderly gentleman lives alone in his own home. He is immobile and requires assistance with washing, dressing, meal preparation and takes two to transfer.	
Patient perspective:	The elderly gentleman says, "I have quality of life, because I am living in my own home. I am independent with help".
Nurse perspective:	This gentleman cannot have quality of life with all his health problems; he needs help every day with all his daily tasks. He has chronic health problems and is immobile.

Figure 2.1: Health and quality of life scenario (Barker 2002, page 93)

The traditional definitions of health appear to include aspects of the absence of disease or disability. It has been argued that these two elements although important are inappropriate for older people (Minichiello & Coulson 2005). An older person

can experience disability, but can still achieve improved quality and health. An individual's health appears to be determined by the world around them and how they interact with it. These include cultural factors, economic status, personal values, gender, race, age and geography (WHO 2002). Other elements to take into consideration should include the changing advances in technology and the changing demographics of our society.

2.3 The Measurement of Health

There appears to be an increasing interest in the measurement of health and health related quality of life in recent years (Brooks 1995). The question is 'what is health' and how can it be measured? A well known definition of 'health' is by the World Health Organisations (WHO) 1946 quoted by Brooks 1995 page 7, which states:

"Health is a state of complete physical, mental and social well being, not merely the absence of infirmity".

This is a problematic definition, because it assumes that someone cannot be healthy if that individual has some degree of physical or mental disability. The WHO did respond to this criticism and in 1984 and redefined Health as being:

"The extent to which an individual or group is able, on the one hand to realise aspirations and to satisfy needs and on the other hand to change or cope with the environment. Health is therefore seen as a resource for living, it is a positive concept emphasising social and personal resources as well as physical capacities".

Quoted in Ewles & Simnett 1995, page 8

Although a slight improvement, there are still assumptions in this definition. For example, some individuals are not aware of being able to satisfy their own needs, so does this mean that they cannot have good health? An individual with a mental impairment may not be able to satisfy their needs or cope with a changing environment. People have different perceptions of health and this makes the concept extremely difficult to define. Perceptions of health may be influenced by many factors, all which may vary in proportion to each other. These may be due to a mixture of mental or physical capability, age, sex, culture, religious faith, interests, personal experiences, society pressures or their own beliefs (WHO 2002). What was not reflected in the literature until 2002 was the concept of ageism and individuals perceptions of their life cycle (Minichiello & Coulson 2005). The WHO adopted the term 'active ageing' instead of 'healthy ageing' in the late 1990's because it recognised factors other than health influencing an individual's life. The WHO defined 'active ageing' as:

"The process of optimising opportunities for health, participation and security in order to enhance quality of life as people age".

WHO 2002, page 12

The WHO definition recognised that there were different influencing factors affecting an older person compared to the general population. However, there appears to be two ways to define health. Firstly, an official definition which is held by health organisations and professionals and secondly, a more popular or lay definition held by the individual. The literature supports the notion that most people focus the measurement of health on disease, illness and negative concepts (Bowling 2005). The relationship between health and quality are related, but quality to one person can be very different to another. As previously stated this makes defining

health extremely difficult. For many years, statisticians have routinely collated statistical information about the general population including mortality and morbidity. There appears to be in the literature a general shift of interest in health outcomes over the last few decades (Wade 2004). In order to measure health outcomes, there needs to be a measure of health status. In the absence of a satisfactory definition Bowling (2005) states that the concept of positive health is more than:

“The absence of disease or disability and implies ‘completeness’ and ‘full functioning’ or ‘efficiency’ of mind and body and social adjustment”.

Bowling 2005, page 5

Yet again, this definition looks at fully functioning humans and does not look for any variation. The only agreement in the literature is that defining health is difficult and measuring it is much harder (Abelin et al 1986, Jamieson & Victor 2002, Minichiello & Coulson 2005, Walker 2005, Bowling 2005). What the literature has highlighted is that government policy can ignore or not take into consideration the implications of health on an individual’s personal perspective. For example, the White Paper – Our Health, Our Care, Our Say: A new direction for community services (DoH 2006) supports and promotes this notion of enabling health, independence and well-being for older generations. What it does not do, is clarify what constitutes being healthy. It does however assume that we each have a responsibility for our own health and well-being throughout our lives. People however, do not generally choose to be unhealthy or have a disability. Some people within their life span can and do make inappropriate or risky choices, for example smoking and high alcohol consumption. This risky behaviour could affect their future health and well-being, but many will make that choice and will have to live with the consequences.

2.4 Health or Disability

Health appears to be referred to in a rather negative manner, by measuring it against an absence of illness or disease. All health status measures take health as a baseline and then measure deviations away from it (Bowling 2005). The different definitions of health have similar themes relating to having a level of aspiration, having a state of need, to be free from disability or ill health. This constitutes the concept of a 'need'. A lay definition defines a need as:

"A want or requirement... a condition of lacking something or a must".

Collins 1993, page 331

Although an old reference, Bradshaw (1972) is quoted in the literature. Bradshaw outlines four different types of needs. A *Normative need*, *Felt need*, *Expressed need* and *Comparative need*. Every individual will have a different perception of what is a need to him or her. What is a need to one person may not be of the same importance to another. It is possible to relate this concept of need within the theoretical perspective of the sick role theory. The sick role was a concept invented by Talcott Parsons in 1951. The theory outlines two rights of a sick person (the sick person is exempt from normal social roles and is not responsible for their condition) and two obligations (the sick person should try to get well and should seek technically competent help and cooperate with medical professionals) quoted in Fulcher & Scott 1999.

Contemporary society is organised in terms of roles that establishes norms of behaviour for the sufferer and for others, which could be family, friends or

professional etc. (Fulcher & Scott 1999). If an individual considered themselves to be poorly, then medical professionals would hospitalise them. This would be an expected outcome and considered to be the norm. The turnaround in health policy is promoting that people do not necessarily need to be hospitalised when they are considered poorly. Where people were once automatically hospitalised, policy is now promoting care closer to home and delivered in the community. Some minor hospital procedures are no longer undertaken in secondary care, many are now considered appropriate for the home environment or in GP surgeries.

There is confusion in the literature about the different terms used to express a change in a person's state of health. Bowling (2005) page 3, quotes the WHO, who defines 'impairment', 'disability' and 'handicap' and links them together. This is illustrated in figure 2.2.

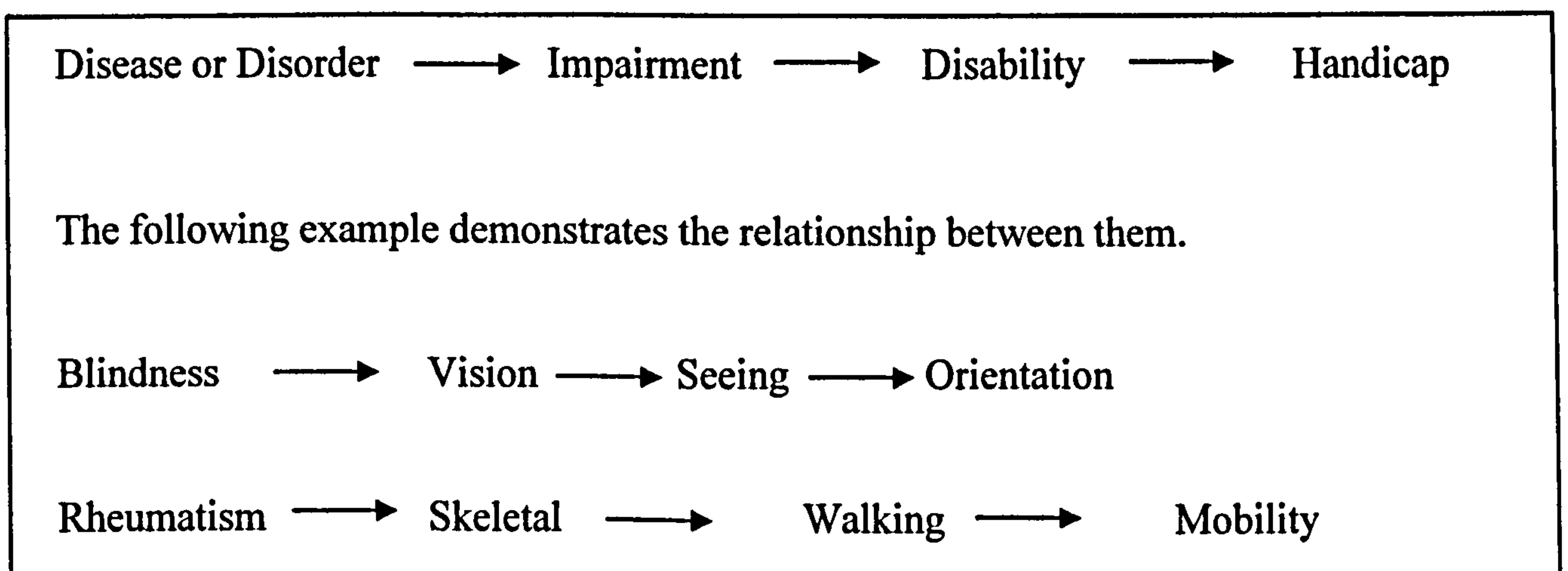


Figure 2.2: Illustration of the process of linking individual's state of health

To further support figure 2.2, Bowling (2005) page 3/4 defines impairment, disability and functional handicap and handicap:

“Impairment is defined as: In the context of health experience, an impairment is any loss or abnormality of psychological, physiological or anatomical structure or function”

“Disability is defined as: In the context of health experience, a disability is any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being”

“Functional handicap: represents the social consequences of impairment or disability. It is thus a social phenomenon and a relative concept”.

“Handicap is a disadvantage for a given individual, resulting from an impairment or a disability, that limits or prevents the fulfilment of a role that is normal (depending on age, sex, and social and cultural factors) for that individual”

Within Bowling’s definitions, there are many assumptions. Not everyone with a disability would consider themselves as handicapped. Human nature allows people to adapt and accept certain limitations on their functionality in life. These assumptions only stereotype people (Bytheway 1995). There appears to be a shifting expectation of health experience and health related behaviour at different stages of an individual’s lifespan. Davey (2001) argues that as an individual’s life course unfold, people emerge from high dependency from birth to a state of interdependence where individual autonomy expands. However, as we grow older, so autonomy declines and dependence often increases again. Many factors can influence this change, for example physical or mental capacity. This shifting dependency could be influenced by cultural expectations or the availability of carer support.

Leventhal (1984) looked at older people and their perceptions of illness. Leventhal found that older people associated less shame or fear of illness compared to younger people. There appeared to be no evidence why older people were able to cope with problems and had fewer expectations. Life experiences may have an influence on that concept. Young people may have more financial responsibilities compared to older people (mortgage etc). People at all ages appear to have different perceptions of health and illness (Fennell et al 1991, Byrne & Byrne 1992).

When an individual, who has previously led an active life, then experiences without warning a sudden change caused by illness or disability. Then this sudden change of life style is likely to have a dramatic affect on that individual's daily existences, including their family, social networks and environments (Folta & Deck 1979, Victor 1987, Byrne & Byrne 1992). The images of becoming child like again retreating backwards and losing their station or credibility in life is not going to be accepted easily. It is hard to imagine the affect on an adult who becomes incontinent following an illness and how this must affect their coping mechanisms. The worry of a change of image is supported by the literature. Paton & Brown (1991) concludes that this type of experience can have a dramatic affect on a person and can change their perception of their status in society.

Within the concept of health and illness, there is an accepted theory of knowledge and acceptance of 'power'. The doctor holds the scientific expertise (the power), because the continuing occupancy of the sick role rests upon the acceptance of the medical authority. Fulcher & Scott (1999) further explore this theory by saying that those who deny the authority must give up the claim to have legitimate sickness. For example, if an individual is off sick from work, then they must have a signed

certificate advocating the reason for absence. The very definition of ‘patient’ describes someone who exercises patience and is otherwise passive.

Patient *“enduring difficulties calmly”*

Patience *“quality of being patient”*

Collins 1993, page 360 (lay definition)

The NSF for Older People (2001a) is a government document that is shifting the balance of power and giving choice by making the patient feel that they hold a degree of power. The patient may feel that they hold a degree of power, but it is still the government policy, which is influencing the changes to health care delivery. Like all reforms, there are outcomes both positive and negative. This is to do with knowledge and who holds the power of knowledge (Fulcher & Scott 1999)

2.5 Quality of Life

“Is quality of life an objective (real) experience or is it a subjective experience mediated and described through the gaze of a particular individual?”

Bond & Corner 2004, page 101

Bond & Corner ask what does ‘*quality of life*’ actually mean. Quality of life has been discussed in various forms throughout the history of philosophy and has been embraced by social scientists (Baldwin et al 1990). The first recorded reference to ‘*quality of life*’ and medicine was in 1966 (Elkinton 1966). Since 1966 the question remains the same – what is it and how does it exist in the real world? A lay

definition sees quality as leading to excellence, this perception only further confuses understanding its dimensions and interpretation.

Quality: A degree or standard of excellence

Life: State of living beings, characterised by growth, reproduction, and response to stimuli

Collins 1993, pages 399/289

The term quality of life is quite vague and open to interpretation. There is no agreement to what quality is or what quality of life can mean. As stated by Draper (1997 page 6) there are a number of key debates relating to the concept of quality of life. They include whether quality of life is best seen as a subjective or an objective phenomenon, whether it is a characteristic of individual people or a group or whether or not it is amenable to manipulation and change by a third party.

One of the guiding principles of effective quality of life as stated by Brown & Brown (2003) is that all humans are entitled to enjoy quality lives. The difficulty in measuring this is that each individual will have a different perception of what is quality to him or her and that makes measuring quality of life extremely difficult. Brown & Brown (2003) outline a simple three level framework. They state that by applying a simple framework, it is possible to help an individual to focus on ways to live their life fully and enhance their quality of life. This can be achieved by meeting any one or all of the three levels below:

Level 1: Attaining the basic necessities of life

Level 2: Experiencing satisfaction with aspects of life that are important to the person

Level 3: Achieving high levels of personal enjoyment and fulfilment

Brown & Brown 2003, page 28

The three levels above are ambiguous and difficult to measure. What are basic necessities to life to one individual can be vastly different to another. For example, an individual's aspiration to a quality of life could be to breathe independently and to another person it could be to drive a fast sports car. This ambiguity has made it difficult to develop and implement quality of life tools that are consistent and reliable. The ambiguity of this concept is acknowledged in the literature:

“The term ‘quality of life’ is ambiguous. On the one hand there is the quality of the individual’s life, a reflection of how well his life is going; but there is also a broader concept, capturing roughly the quality of the living conditions around an agent, where these can be picked out independent of how the agent’s own life goes”.

Baldwin et al 1990, page 28/29

Within the literature, there is no consensus over the definition of what ‘quality of life’ is or how it can be measured. Each definition appears to encompass a range of different components and dimensions for example, pain, physical function, social function etc. Each component could equally interlink with functional ability or psychological dimensions. The only agreement in the literature is that any tool selected to measure quality of life outcomes must be undertaken and/or completed by professionals such as nurses, therapist, and medical physicians or by the individual themselves (Tinker 1996, Bowling 2004). As highlighted by Tinker (1996) research

based on perceptions of professionals may save time and achieved an outcome in a more standardised format, but it can be:

“Dangerously misleading as a way of finding out how older people themselves really feel”

Tinker 1996, page 260

The argument about who is best placed to complete the measurement is not resolved within the literature. It appears to show that there are discrepancies between a professional and the patient when measuring outcomes after specific treatments (Barker, 2002, Orth-Gomer et al 1979, Jachuck et al 1982). It could be questioned whether quality of life can even be measured in the first place (Draper 1997). A study carried out in a residential home concluded that appearances could be very deceptive. When residents were observed, sitting apathetically in a row an assumption is made that they have no quality of life. However, when interviewed, nothing could be further from the truth (Power 1981).

“When we talk about positive quality of life, we are talking about having a life that is very meaningful to individuals and that provides them with resources”.

Brown & Brown 2003 page 19

What is meaningful to one person may not be to another. Resources to one individual or group might be completely more important than to another. A patient with chronic health problems from a nursing point of view could be described as having a poor quality of life, but in the patient's opinion, they have good quality because they are living a life to the best of their ability in the environment of their own choice. During the 1980's, the search for indicators to demonstrate positive health outcomes was

initially influenced by the work of the WHO (Abelin et al 1986). The WHO defined quality of life as:

“The individual perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals”.

WHO quality of life group 1995

This definition clearly places the patient’s point of view as the deciding factor to the outcome measure and not the professional point of view. It places the requirement on individual position in life, an earlier definition by Shin & Johnson (1978 page 6) places the need on resources available to satisfy that need:

“The possession of resources necessary to the satisfaction of individual needs, wants and desires, participation in activities enabling personal development and self actualisation and satisfactory comparisons between one self and others”.

The assumption made here is dependent on previously held knowledge and experience. The two previous definitions clearly demonstrate some of the diversity within the literature. To define quality of life is extremely difficult. What the literature illustrates is that there is a general agreement that as a concept it exists, although the universal agreement is that it is difficult to define and characterise (Rapley 2003). The difficulties associated in measuring it should not be taken as an excuse for inaction by policy delivery. When drafting policy documents the following universal facts should be considered:

- Health measured both subjectively and objectivity, strongly influences the well-being of elderly people

- Psychological factors, such as personality factors, loneliness and feelings of powerlessness influence well-being
- Physical functioning matters for quality of life
- An accessible home and community environment has a positive influence on quality of life
- Social factors matter with social isolation having a negative effect on quality of life
- Self-respect and dignity are important elements in everyone's life, irrespective of age
- Economic deprivation seriously damages the life chances and quality of life of individuals.

O'Shea, 2002, pages 19/20

The previous bullet points are relatively straightforward and self-explanatory. The difficulty arises in how to measure such a simple but extremely complex entity? It appears from the literature that health-related quality of life tools are commonly used to determine the effects of medical and community based health interventions within the general public (Pickles et al 1995, Bowling 2005, Pryor 1999, Audit Commission 2000, Stevenson 2000, Hek 2003). These tools can be used to measure the impact of disease, the outcome of an intervention (e.g. hip replacement) or as in this study the impact of an intermediate care episode (Bowling 2005). A large number of tools have been developed to measure health. These can be administered in a clinical or primary care setting (e.g. hospital or patients own home) to measure the impact of disease or an outcome intervention.

As highlighted by Pickles et al (1995) the content and process of any assessment needs to be tailored to the individual being assessed. Within the confines of this study, the intermediate care core episode revolves around promoting independence and reducing reliance on future long-term care needs. This is achieved through a joint multi-agency/disciplinary assessment and agreeing a rehabilitation care plan, with an aim to assist recovery (maintain or improve health) and independence (quality of life). The intermediate care criteria states that an intermediate care experience should be based on a *“comprehensive assessment, resulting in a structured individual care plan that involves active therapy, treatment or opportunity for recovery”* (DoH 2001). Active therapy and allowing time for an opportunity for recovery means that this study needs to look at the fundamentals of rehabilitation.

2.6 Rehabilitation

The general principles of rehabilitation form the core element of the intermediate care service. There is strong evidence that a comprehensive assessment, followed by the implementation of an individual rehabilitation care plan reduces the risk of older people being readmitted into hospital or inappropriately placed in long-term care (Audit Commission 2000). The word ‘habilitation’ and ‘rehabilitation’ as translated from their Latin roots means ‘making able’ and ‘making able again’ (Glanville 1976). The literature makes various attempts at defining rehabilitation.

“A programme of therapy and re-enablement designed to restore independence and reduce disability”

NSF for Older People, DoH 2001, page 158

“The general principles of rehabilitation may be summarised as maintaining and improving the mobility of the patient’s joints, preserving and improving the muscle power and actively restoring and developing muscle power.”

Storrs 1976, page 155

“Rehabilitation is a dynamic process of planned adaptive changes in life-style in response to unplanned change imposed on the individual by disease or traumatic incident. The focus is not on cure, but on living with as much freedom and autonomy as possible at every stage and in whichever direction the disability progresses”

McEachron 1986, cited in Dittmar 1989, page 8

The three previous attempts at defining rehabilitation demonstrate how the focus has changed from a medical perspective towards a more individualised approach of maintenance. As highlighted by Nocon & Baldwin (1998) there still appears to be fairly widespread confusion about the meaning of rehabilitation. It has been referred to as an approach, a philosophy, an attitude and a process (Dittmar 1989, Pryor 1999). The central focus of rehabilitation appears to be more concerned with enabling people to return to optimum function, rather than simply doing for people and involves restoration to the maximum degree possible, a mixture of clinical, therapeutic and social intervention and/or responsive to individual need (Dittmar 1989, Pryor 2000, Foote & Stanner 2002). Rehabilitation is not just about a specific disease or a singular disability. It is multifunctional and has to be a whole systems approach. As raised by Foote & Stanner (2002 page 331), rehabilitation is more than functional status of the individual. It involves their minds as well as their bodies. It is about rehabilitating the older person and their environment. It includes rehabilitating their family and/or carer(s) by providing respite as well as new and shared skills to enable the patient to cope. The rehabilitation process also includes the staff caring for the patient, in the sense of learning from the older person and the event.

The Australian Rehabilitation Nurses Association (1999) page 14 suggests a slightly different viewpoint. They state that rehabilitation involves the maintenance of existing abilities and roles by the promotion of health. This is achieved through the prevention of further impairment and reduction of disability, by the restoration of function and roles and the minimisation of handicap.

An interesting viewpoint in the literature is that the individual must own the rehabilitation process or it will be ineffective (Pryor 2000). For rehabilitation to be effective, the individual must be willing to participate and be actively involved in all stages of planning and delivery:

“The driving force (of rehabilitation) must come from within the patient”

Waters 1986, page 17

The above statement discriminates against those with mental incapacity and memory impairment. It was noted in the intermediate care literature that there was little support for those with memory impairment (Nuffield Institute for Health 2002a). The patient could still benefit from rehabilitation if there was a carer(s) to facilitate the process with them (Marshall 2005). It is acknowledged in the literature that, although the ideal is to aim for full recovery, this cannot always be achieved (Pryor 2000). It might be more realistic to achieve a modified outcome (a more practical level), rather than the optimum level of improvement that is needed to restore the individual to independence (Shukla & Brooks 1997).

There is strong evidence in the literature to state when people are properly assessed and given the right level of support then they are less likely to be readmitted into

hospital (Steiner 1997, Pryor 1999, Vaughan & Lathlean 1999). They are most likely to survive longer and have improved social and physical functioning (Sinclair & Dickinson 1998, Audit Commission 1997/2002, Kings Fund 2000, Nazarko 2001, Sander 2002, Hek 2003). The District Audit (2002a) draws together a number of leading documents to recommend the importance of effective rehabilitation services within primary and secondary care. It states that quite often rehabilitation services are failing to make the necessary impact. It concludes that they do not engage older people as an individual and this resulted in services that do not meet their needs. If this is the case, then this is an area that needs further investigation in this study.

2.7 Chapter Summary

This chapter has examined the general concepts of health, quality of life and the promotion of independence (rehabilitation). The rationale was facilitated by the intermediate care literature (reviewed in chapter one). The intermediate care literature made a number of assumptions about what an outcome of an intermediate care intervention should be (Steiner 1997, Stevenson & Spencer 2002, Wade 2004, Martin et al 2004, Young & Stevenson 2006). The promotion of health and independence within intermediate care was driven by the modernisation agenda of the NHS (Wade, 2004). A review of the literature in this chapter has assisted the researcher to appreciate the underpinning values and theoretic influences on an individual within the concepts of health, quality of life and the promotion of independence.

This chapter describes the methods used to carry out this study. The chosen methods gave structure and defined the steps, procedures and strategies for gathering and analysing the data. These were continually monitored throughout the time span of the study to ensure that the processes put into place were fit for purpose. This gave the researcher flexibility to adapt or change a method if required as the study progressed.

This chapter begins with a brief introduction, followed by the research aim and objectives. It sets out the research design including justification why this is not a RCT, gives a general overview of the study site, stakeholders, consent and ethical approval, study constraints (e.g. budget, data storage), sampling, data collection and data analysis. The chapter concludes with a methodology discussion, including a rationale for a mixed methods study and closes with a summary.

3.1 Introduction

This study is a longitudinal mixed methods study to examine an intermediate care service. The method of examination provided data about the same individual at different points in time. This allowed the researcher to track change at the individual level. The individual level relates to the patient's journey. In this study the patient's journey is an exploration of the distance travelled in a specified period and all the significant events that occurred during that time period. The points in time relate to different stages during the patient's journey (prior to admission, during the intervention and following transfer from the service at two set intervals). The rationale was to use the patient's experience as the key driver to examine service effectiveness in the broadest sense. This approach was used as a method of

exploration to identify whether intermediate care could be effective in enhancing independence, quality of life and to reduce dependency on future care services.

A longitudinal study is designed to collect data at more than one point in time, in contrast to a cross-sectional study (Polit & Beck 2004). When a study is longitudinal there are difficulties of sample attrition because of the length of time data is collected (in this study between eight and twelve months). There can be difficulties of participants withdrawing at late stages, death, ill health or people moving out of area. A positive aspect of a longitudinal study is that this type of study is concerned with illuminating social change and improving the understanding of causal influences over time (Bryman 2001). The longitudinal design is better to deal with problems of 'ambiguity', because it is generally recognised that research problems involving trends, looking at changes or developments over time are best addressed through longitudinal design (Cormack 1996, Bryman, 2001, Polit & Beck 2004).

The researcher acknowledges that there are limitations to any chosen method and that there are many different theoretical perspectives to guide a study. It is acknowledged by the researcher that this is a small and isolated study. However, by ensuring that the methods used were set within a theoretical framework will assist in replication and integration of the research findings. The key challenge in defining the research design has been to ensure reliability (accuracy and consistency of information obtained) and validity (the the soundness of the study's evidence). The threat of bias was taken very seriously, because of the risk of any potential influence on the study's validity and trustworthiness. Biases can affect the quality of evidence in both qualitative and quantitative research (Polit & Beck 2004). The ultimate goal

of this study was to develop, refine and expand the body of knowledge. That is why the research design in this study has been so important.

3.2 Research Aims

The purpose of this study was to ascertain whether an intermediate care service could be effective in enhancing an individual's independence, quality of life and reduce reliance on future care services. To achieve this ambitious goal the researcher set five key aims.

- 1. What factors influence the care and outcomes for individuals who are in receipt of an intermediate care intervention? In particular an exploration of the degree of care required and a review of basic demographics including age, gender, length of stay and living arrangements.**
- 2. Is there a change in quality of life following an intermediate care intervention? The focus of this aim was to compare pre and post intervention.**
- 3. Is there a change in functional ability following an intermediate care intervention? The focus of this aim was to compare pre and post intervention.**
- 4. What are the experiences of the patient and their carer(s) as they receive care from the intermediate care service? Particular attention was paid to the transition prior to accessing the service, during the intervention and future aspirations.**
- 5. What are the experiences and expectations of staff groups, including intermediate care staff and those staff groups who refer into the intermediate**

care service? The intention of this aim is to ensure that there is multi-agency/disciplinary representation to explore personal experience and aspirations.

3.3 Research Objectives

To achieve the aims of this study a number of objectives were set.

1. To investigate whether levels of dependency have been reduced by receiving intermediate care. There are many factors that would influence this outcome. General areas reviewed included the type of referral, diagnosis, length of stay and destination pre and post intermediate care. To address the complexity of dependency two additional more in-depth areas of exploration were undertaken.

The level of social care was examined by comparing the level of social care the individual received prior to admission, during the intermediate care intervention and the level of re-provision on discharge/transfer from the service. The patient's personal and social circumstances were examined before accessing intermediate care, during intermediate care intervention and after they had left the service. The time period reviewed on leaving the service was twenty-eight days (national benchmark for readmissions) and six months. This involved looking at patient destinations and personal circumstances on leaving the intermediate care service at twenty-eight days and six months.

2. To investigate any change in patient's quality of life. A validated quality of life tool was used to compare perceptions of quality of life prior to admission and on discharge/transfer from the service.

3. To measure any change in functional ability. A validated functional ability tool was used to compare functional ability prior to admission and on discharge/transfer from the service.
4. To explore what was important to the patient a discharge/transfer questionnaire was designed and distributed to them on leaving the service. To obtain a better understanding of their prior experience, including the influence of the intermediate care service and future aspirations thirty-five patients were selected and interviewed. To obtain a better understanding of carer prior experience, including the influence of the intermediate care service and future aspirations five carers were selected and interviewed.
5. To obtain a better understanding why people chose to work in the intermediate care service. One individual from the ten disciplines representing the intermediate care service in this study (PCT and Local Authority) were selected and interviewed (band six nurse, band five nurse, occupational therapist, physiotherapist, dietician, speech & language therapist, assessment officer, care coordinator, senior care officer, home carer). To obtain a better understanding why people referred a patient into the intermediate care service. Five individuals who had referred a patient into the intermediate care service were selected and interviewed (acute hospital, community hospital, GP, social services, district nursing).

3.4 Study Design:

The study design is a longitudinal study using a mixed methods approach to achieve its aims and objectives. Quantitative methods were used to measure, quantify and to statistically test the data. Qualitative methods were used to gather and produce rich findings. The data were derived from people's lived experiences, behaviour and interactions with their environment. The triangulation of research methods has assisted the researcher to cross reference the findings and to develop the evidence base. There were a number of key considerations to be considered in the planning stages of this study. The researcher had to engage with key stakeholders to ensure ownership and to gain permission. Consent and ethical approval were paramount to protect those contributing to this study. Other considerations included the financial and general management processes to ensure the smooth running of the study, data storage, population and sample identification. All these things had to be agreed and in place before any data were collected.

3.4.1 Rationale for not undertaking a Randomised Controlled Trial (RCT)

When evaluating an outcome or intervention, it is a bold claim to state as part of the research aim that the study is going to investigate effectiveness. Other intermediate care studies have explored effectiveness in terms of singular elements, e.g. Shepperd et al (1998) examined cost to assess effectiveness of an intermediate care outcome. When a study is designed to assess effectiveness, the chosen methodology is usually by a RCT (Wade 2004). This approach is only relevant if there are two or more groups to compare. There are many merits in incorporating a RCT when assessing effectiveness or a defined outcome measure. Randomising two groups gives a

baseline or comparison to test for effectiveness. Randomisation however, does not guarantee that the population randomised is typical of the wider population being studied (Bowling 2004).

It is acknowledged that there is a place for using a RCT to evaluate effectiveness in intermediate care (Steiner et al 2001). However, in this study, the rationale for not incorporating a RCT is that this study is multi-faceted and is exploring the patient's journey and the influences on that journey. It is not making comparisons between two separate groups or elements. It is not evaluating singular elements that can be easily incorporated into the confines of a RCT. Using a RCT for some of the elements in this study would be repeating previous research attempts, e.g. Gunnell et al (2000) looked at carer burden. RCT has successfully been used to evaluate elements of intermediate care and the researcher acknowledges these (Griffiths et al 2001, Steiner et al 2001). However these studies have been restricted in their areas of evaluation and have not been fully inclusive of what contributes an intermediate care service. There are ethical and practical grounds for not randomising individuals. Patients are entitled to high quality care and randomisation should not affect the care they receive or influence their care outcome. There can be professional resistance because it would be unethical to deny a patient a new treatment or surgical intervention.

This study aims to investigate beyond what is visible or can be easily measured or understood, it attempts to explore and understand the patient's entire journey. Vaughan (1998) and Wade (2004) agree that an RCT is limited and could lead to difficulties when reviewing a wider range of uncontrollable factors such as those in intermediate care. This study is exploring a wide range of uncontrollable factors and

placing the purpose of this study within the constraints of an RCT would be too restrictive and would not answer the research aims. The research design would become fragmented and it would lack cohesion. Having decided not to use a RCT in this study, it is still possible to claim effectiveness by the very nature of this longitudinal study using the patient's journey as its method of exploration.

3.4.2 Study Site and Engagement of key Stakeholders.

The study was undertaken in a large geographical area covering 933 square miles (241,000 hectares). The area is predominantly rural with a population of approximately 325,000. There are three major urban towns, each with an approximate population of 25,000. The rest of the population lives in small, scattered and geographically isolated locations. An estimated 21% of the people are over pension age, compared with 18.1% in the UK (Office for National Statistics 2001). Although the study area is predominately rural, there was representation of urban populations. A mixing of rural and urban areas gave a fuller picture (representation) and enhances the rigour of the research.

The study was undertaken with fully agreement of key stakeholders in two Primary Care Trusts, a Local Authority and one acute hospital. Permission was granted by the Chief Executive of the PCT who had overall responsibility for the coordination of the intermediate care service. The intermediate care staff were key players in the development and delivery of this study. In the last three months of the study due to unforeseen circumstances (intermediate care staff sickness) a second researcher was used to ensure that the sample target was reached. Additional training and shadowing was given to this person to ensure that they were conversant with the study's

schedule and methods. The researcher acknowledges the risks of bring in a second person at this late stage, but there was no other option to ensure that the study met its schedule and was completed on time as agreed with key stakeholders and the ethics committee.

3.4.3 Consent and Ethical Approval

Participation in this study was entirely voluntary. Selected individuals (see section 3.4.6 for further details) were given verbal and written information about the research study (copy of the patient information leaflet - appendix I). Patients and carers were informed that participation would not affect the care if they decided not to take part and there would be no negative repercussions. There was no direct benefit for participants to take part in the research study. Individuals were told that they might withdraw at any stage with no consequences to the support or care package they were currently receiving from the intermediate care service. Assurance was given to participants that all information obtained would be confidential and anonymity would be maintained at all times. However, if for any reason it appeared imperative to disclose any such information, then permission would be sought from the respondent. This dilemma is caused by the interface between being a nurse and a researcher at the same time. Under the Nursing & Midwifery Councils code of conduct and the protection of vulnerable adults there may arise clinical issues of abuse or neglect (NMC 2004, RCN 2004).

To protect identities and maintain confidentiality, all participants were allocated an individual identification number. There are a number of requirements that must be met in order to maintain confidentiality. It is paramount that participants are

informed of the intended use of the information they provide and offered choice of whether to agree to participate in the research study or withhold their consent (copy of consent form - appendix II). Ethical approval was required to protect the rights and interests of those participating in this study. The local Research Ethics Committee was approached for approval to undertake this study. An application was submitted in June 2003. The application was considered and deferred for further clarification on a number of aspects relating to the study.

The Ethics Committee sought clarification on the following aspects of the study. In the application it stated that the Short-Form 8 questionnaire should take appropriately 15 minutes to complete. The Ethics Committee wanted reassurance that individuals would be given more time if required. The Ethics Committee suggested a change of vocabulary in the patient information leaflet. To exchange the word 'leave' with 'withdraw'. The Ethics Committee requested clarification on the involvement if any of the carer and suggested that the study would benefit from the use of a control group. To clarify the above issues, an invitation was sent by the local Research Ethics Committee panel to attend one of their meetings to discuss the above concerns. There was much debate about the merits of RCT being the only method to produce robust evidence. Clearly, some panel members favoured a medical approach to generating evidence. The case for incorporating both a quantitative and qualitative element was put forward and the debate came to an agreeable conclusion and permission to undertake the research study was granted (copy of Ethics Committee letter - appendix III).

3.4.4 Budget

There was no nominal budget or allocated sponsorship for this study. Costs incurred were absorbed via the daily operation and management of the service or the researcher. Having no nominal budget was challenging at times. In certain circumstances it required careful negotiations to resolve specific dilemmas and incurred costs (e.g. financing the cost of the 90 postage stamps for the return discharge questionnaires).

3.4.5 Data Storage

All data collected during the study will be kept for five years before being destroyed. All data collected throughout this study will remain confidential. All data will remain stored in a secure environment (locked room when unoccupied). This includes all data stored on computer (password protected) and in original format. Except the tapes that were used to record the interviews, as these were recycled. To ensure user confidentiality each participant was allocated an individual identification number. The master list of participants is kept in a locked draw separate from the data.

3.4.6 Population Identification

There is no defined agreement in the literature on what constitutes an older person as discussed in chapter two. The NSF for Older People (DoH 2002) does not define or agreed what constitutes an older person. Age Concern supports all individuals 50+ whereas many statutory organisations have an age limit of 60 or 65 years. The consensus were to include those individuals at retirement age, the dilemma was that

in the UK there is a split retirement age for male and females (male 65 years and female 60 years).

It was felt having a split age criterion would become too confusing in the sampling procedure. Therefore the age limit of 60 years was selected for males and females. This meant that only those individuals who were aged 60 years and over, and who had accessed the intermediate care services were considered to be eligible. Exclusion from the study included people under 60 years of age and those who had not accessed the intermediate care service. The gender split in this age group was taken into consideration, to ensure that the sample was representative of the geographical area being studied. The anticipated split was two thirds female to one third male. This would ensure that the study supported the local demographics of the geographical area (Office of Population Censuses and Surveys 1991, Directors of Public Health Annual Report 2004). It is not essential that the ratio be kept the same, if each sub-sample is representative.

Power analysis was used to estimate the necessary sample size. Many authors advocate the use of power analysis as the procedure to explore sample size before designing their study (Lewis 2006). Statistical power is a measure of how likely the study is to produce statistically significant results and to detect a true difference without affecting the validity of the study. Statistical power analysis exploits the relationship among the four main variables - sample size, significance criterion, population effect size and statistical power. The sample size was established using Cohen's tables (Cohen 1992, table two), by assuming that the study's analysis would involve mainly correlations at the conventional power of 0.8, assuming a medium effect size and power $p < 0.05$. This required a minimum sample size of 85 subjects

(N=85). There are difficulties for the researcher in any study to ensure that the study's sample size is representative of the population being studied or there is an increased risk of bias and/or un-representation. Using power analysis to decide on the sample size in this study will reassure quantitative researchers, but it will not be seen as important by qualitative researchers. Qualitative researchers are concerned about measuring attributes and relationships within the population being studied. Their aim is to discover meaning and to uncover multiple realities so the sample size can be smaller (Polit & Beck 2004).

3.4.7 Sampling Procedure

Within the constraints of this study, it is not possible to use the total target population (every individual supported by the intermediate care service). Results obtained from a representative sample are more likely to represent the population being studied (Burns 2000). The more representative the sample is the greater probability that the results have validity. The challenge has been that this study has included both quantitative and qualitative research methods. Researchers in quantitative and qualitative research have different approaches to sampling (Tashakkori & Teddlie 1998). Quantitative researchers use probability sampling methods and qualitative researchers tend to use non-probability sampling methods (Polit & Beck 2004).

In the planning phase of this study, it was agreed that the sampling framework would be flexible enough to change if it was considered to be unrepresentative at any time during the data collecting phase. The researcher wanted to monitor the representation of the patient sample group to ensure that people across the geographical area were included in the study (a mixture of rural and urban), the type of referral (prevent admission into an acute hospital and early discharge from an acute hospital) and that

each staff discipline was represented in the staff interviews. The researcher to the best of their ability endeavoured to ensure that the views of all individuals involved in this study were taken into consideration. Sampling is an important element for both quantitative and qualitative research.

To address the quantitative element of this study a simple probability sampling process was selected. The selection process took place by the intermediate care team at point of referral. The selection process involved the intermediate care team and the researcher remained totally uninvolved. The selection allowed every sixth individual access to the study. This approach is the most basic probability sampling method using a simple sampling framework (Polit & Beck 2004). It was important to monitor the selection process to ensure that the sample was representative and that participants met the eligibility criteria. Selected individuals were approached for permission to include them in this study by the intermediate care staff. To address the qualitative element of the study the sampling approach was considered separately. Within the constraints of the study, there was not enough time or resources to interview all participants. To ensure that this element of the study met its objective, the chosen sampling method was a non-random sample using purposive sampling methods.

To identify the patient interviewees, the intermediate care teams identified and recommend appropriate individuals. Inclusion in the study involved those individuals who were in their final week of their intermediate care intervention. The exclusion of individuals was to eliminate those who would not be able to contribute to the interview. For example a patient with a memory impairment or individuals who were too poorly to contribute to the interview process. The researcher had allocated time

within the data collection timeframe to undertake the interviews (section 3.4.7). The intermediate care staff simply forwarded details of anyone in their final week and if these people fitted the interview timeframe, then they were selected and interviewed (figure 3.2). The researcher made a conscious decision to monitor the selected of people to ensure that there was equal representation of individuals living in rural and urban areas. However, on closer inspection it was not necessary for the researcher to intervene.

The five carer interviewees were identified by the intermediate care staff. Inclusion was that the person they cared for had been interviewed. This would allow additional cross referencing to enrich the data source. Exclusion was that the person they cared for had not been interviewed and they were not within the timeframe for interviews (figure 3.2).

The researcher made a conscious decision to interview one member of each discipline working in the intermediate care service in this study (incorporating both PCT and local authority staff - band six nurse, band five nurse, occupational therapist, physiotherapist, dietician, speech & language therapist, assessment officer, care coordinator, senior care officer and home carer). When there was more than one member of staff representing a discipline, the researcher simply allocated them a number and the interviewee was randomly selected (numbers placed in a hat and one number pulled out).

To select interviewees for the referrer interviews the researcher made a conscious decision to interview a representation of the agencies referring into the intermediate care service (acute hospital, community hospital, GP, social services, district

nursing). Interviewees were randomly selected from the patient data collection forms. Intermediate care staff documented where the referral had come from. The researcher then contacted the intermediate care team to identify who the referrer was and to obtain contact details.

The researcher acknowledges there is more risk of sampling error when a conscious decision is made to identify the sample. The researcher acknowledges that the sample population is relatively small and that the view of individuals is their own. Individuals had been selected from different locations across the study's geographical area to ensure representation of urban and rural areas. However, it is not possible to include the total target population in this study and sampling bias to some degree is inevitable. To address the issues raised the researcher has endeavoured to ensure that the sample is as representative as possible under the restrictions of this mixed methods study.

3.4.8 Timeframe

An examination of the preceding twelve-month period did not show any particular variation in quantity or type of referrals into the intermediate care service. There did not appear to be any seasonal variation. It was decided to select participants over three different time-periods within a full year to ensure representation and to ensure that supporting this study did not impact too highly on the intermediate care team's daily routines. Each time-period was over three months (as illustrated in figure 3.1). The selected time-period would be reliant on the readiness of the research area. There were delays in obtaining ethical approval. There were internal difficulties affecting the readiness of the intermediate care team. For example, ensuring that everyone had received the training (see section 3.4.8 for further details of the training

given) and that the patient's information and data collection packs were ready and given to the intermediate care staff.

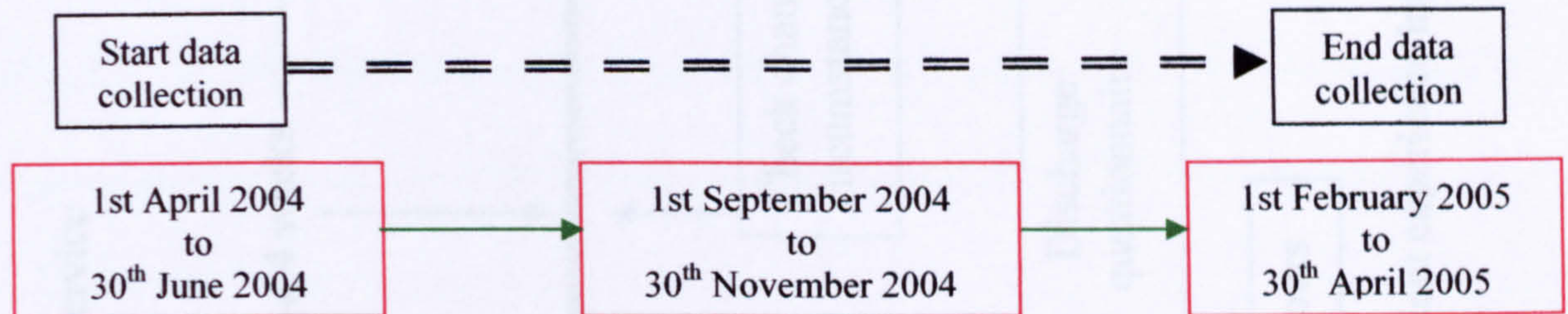


Figure 3.1: Agreed data collection timetable

During the second data collection period (1st September – 30th November 2004) a number of intermediate care patients were excluded from the study because the data collection forms were incomplete (n=39). The data collection process was suspended due to intermediate care staff sickness. To maintain the viability of the study data collection period was changed as illustrated in figure 3.2. During the data collection period all fifty-five interviews were undertaken (thirty-five patient interviews, five carer interviews, five referrer interviews and ten intermediate care staff interviews).

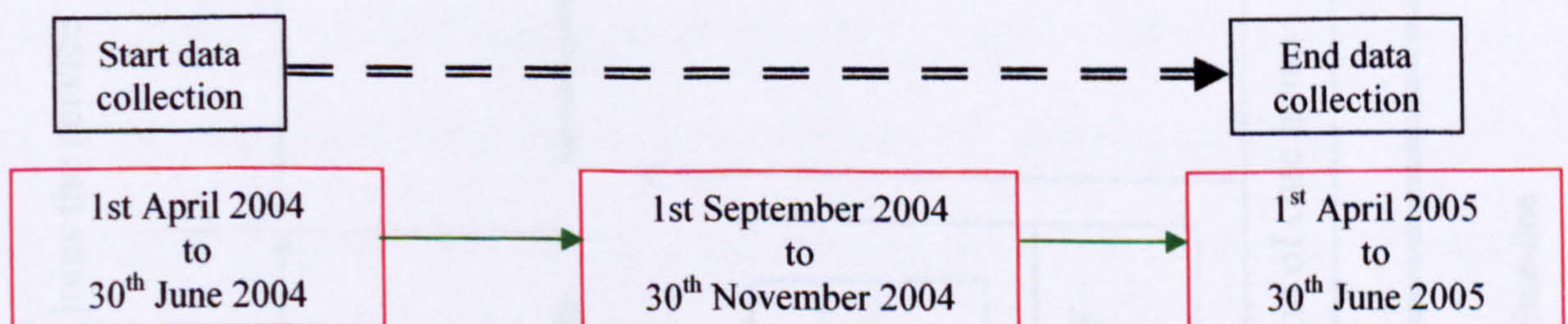


Figure 3.2: Study's final timetable for data collection.

Data are the raw material from which conclusions can be drawn. It is vital that data were collected thoroughly and accurately. Figure 3.3 illustrates the timeline of the patient's journey and shows when the data had to be collected.

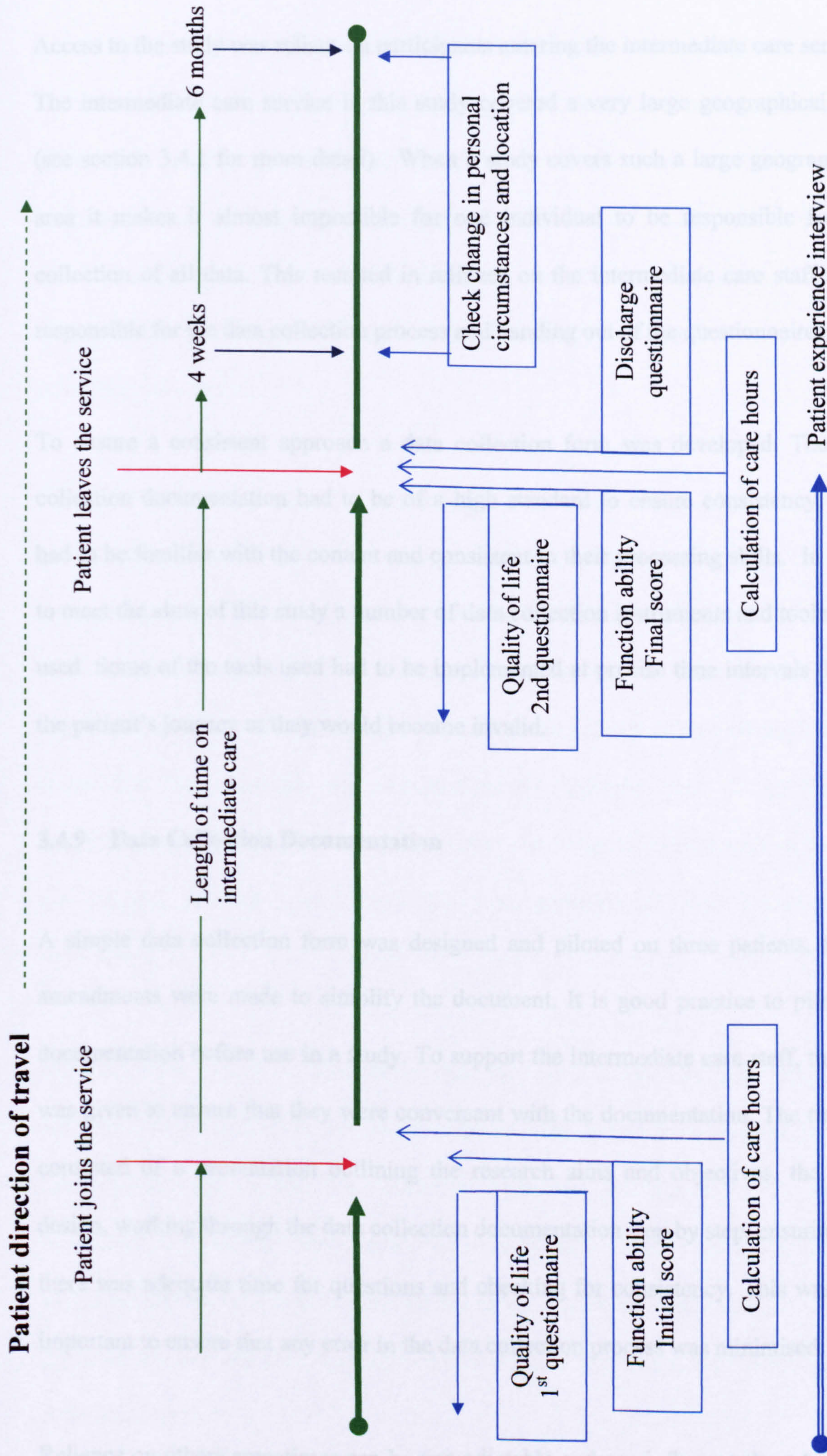


Figure 3.2: Data collection time-line

Access to the study was reliant on participants entering the intermediate care service. The intermediate care service in this study covered a very large geographical area (see section 3.4.1 for more detail). When a study covers such a large geographical area it makes it almost impossible for one individual to be responsible for the collection of all data. This resulted in reliance on the intermediate care staff to be responsible for the data collection process and handing out of the questionnaires.

To ensure a consistent approach a data collection form was developed. The data collection documentation had to be of a high standard to ensure consistency. Staff had to be familiar with the content and consistent in their processing skills. In order to meet the aims of this study a number of data collection instruments and tools were used. Some of the tools used had to be implemented at precise time intervals during the patient's journey or they would become invalid.

3.4.9 Data Collection Documentation

A simple data collection form was designed and piloted on three patients. Minor amendments were made to simplify the document. It is good practice to pilot any documentation before use in a study. To support the intermediate care staff, training was given to ensure that they were conversant with the documentation. The training consisted of a presentation outlining the research aims and objectives, the study design, working through the data collection documentation step by step, ensuring that there was adequate time for questions and checking for consistency. This was very important to ensure that any error in the data collection process was minimised.

Reliance on others sometimes can be unpredictable and can influence the robustness of the research process. To help reduce any inconsistency the intermediate care staff

were given a pack for each patient accessing the study. Each pack had its own individual identification number and contained a consent form, patient information leaflet and patient letters, quality of life assessment tool, functional ability assessment tool, discharge/transfer questionnaire and a data collection form. The data collection form included standard patient demographics (unique identification number, name, address, date of birth, gender, living arrangements) and included the following information.

The type of referral into the intermediate care service was included because individuals can be referred to the intermediate care service to prevent an acute hospital admission or following an early discharge from an acute hospital. The type of referral was included for two reasons. Firstly, the type of referral might be an influencing factor in the patient's journey. Secondly, it was considered important to ensure that there was fair representation of the different types of referral. The intermediate care service had a 2:1 ratio (early discharge to prevent admission). It is not essential that the ratio is kept the same, provided that each sub-sample is representative.

Who made the referral to the intermediate care service was included because this allowed the researcher to see what agencies and individuals referred into the intermediate care service. This helped to identify individuals for the referrer interviews. On referring the patient, the referrer was asked in their opinion what would happen to the patient if they did not access the intermediate care service? The rationale for this question was to ascertain whether the alternative would alter the patient's journey.

Diagnosis was included because this related to the reason why the individual were referred to the intermediate care service (medical reason). It was acknowledged that some individuals had multiple medical problems, but it was the actual reason for referral that was explored. The diagnosis decision was made by the referrer. Diagnoses were collected to see whether or not an individual's length of stay was influenced by their diagnosis accessing the intermediate care service.

Time related information was included because this included documenting a start date, discharge/transfer date and review dates (twenty-eight days and six months). Documenting a start and end date allows the researcher to calculate the length of stay on the intermediate care service. Intermediate care guidance (DoH 2001) advocates support for up to six weeks. There is some discussion in the literature whether this is too restrictive (Stevenson & Spencer 2002, Wade 2004). It was felt that individual experience might be influenced by the length of stay in the service. Therefore, this variable was included.

A review of discharge/transfer destination and location at twenty-eight days and six months was important. Intermediate care is tasked with reducing and delaying dependency on future care needs. At twenty-eight days the patient was contacted by phone to ascertain whether there had been any change in their care network and support mechanisms. The rationale for choosing twenty-eight days was that this could be cross-referenced with a baseline readmission rate. The readmission rate from all acute providers in this study's geographical area was 5.5%. The main acute provider contributor to this study had a readmission rate of 6%. Nationally approximately 5% of patients discharged from NHS hospitals are readmitted as an

emergency within twenty-eight days and for older people the figure is about 7%.

The readmission rates information was accessed from:

<http://www.chi.nhs.uk/Ratings/Trust/Indicator/IndicatorDescriptionShort.asp?IndicatorId=1026>.

A second review was conducted at six months. The review was conducted by checking health and social care electronic or paper records to ascertain if there had been any change in location or hospitalisation. Where it was difficult to ascertain this information participants were contacted by phone. Participants were informed at discharge/transfer verbally and by letter. This information was reinforced in the study's information leaflet given to every participant (patient information leaflet appendix IV). Unfortunately, the parameters of this study would not allow an additional third check at 1 year.

Review of care hours was included because an element of the first aim of this study was to review levels of dependency relating to care needs. The care needs reviewed in this section of the study related to social care needs provided by family and/or friends and external care agencies (private agency supplying personal care, domestic care and other care needs for example shopping). The external care agency could be an independent care provider or twenty-four hour residential care. The information gathered was to ascertain whether there was a relationship between the levels of care an individual received prior to accessing the service compared to the discharge/transfer arrangements. In addition, whether this was influenced by the support an individual received from the intermediate care service. This information was collected in the following format (figure 3.4).

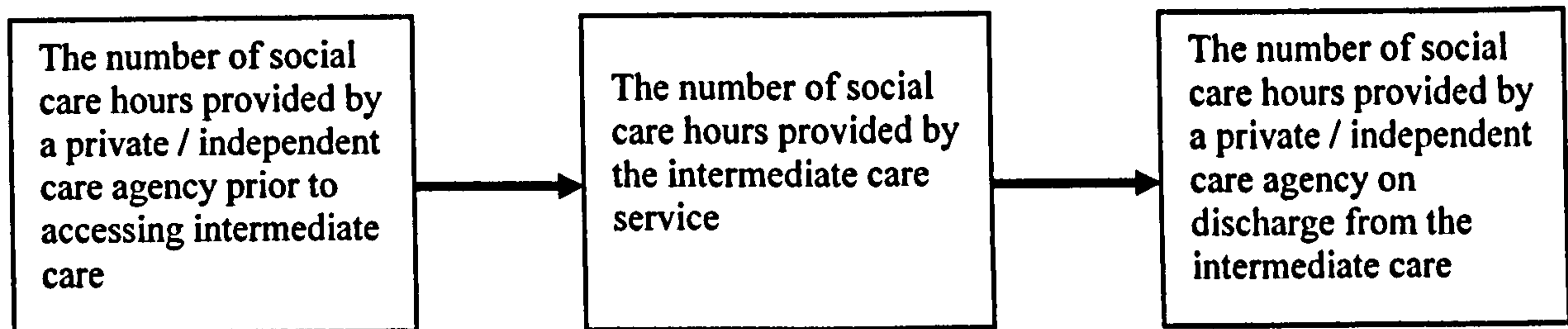


Figure 3.4: The relationship between social care hours.

The level of social care received by the patient during this period was obtained from the care records (prior, during and on discharge/transfer). If the social care element had increased suddenly in response to the crisis prior to accessing the service, it was not included in the calculations when looking at prior care needs. The rationale was that it would be expected that care input would decrease once a crisis had been resolved.

3.5 Selection of Instruments

To assist in answering the research aims three separate assessment tools were used to collect data (quality of life, functional ability and a discharge/transfer questionnaire). The quality of life and functional ability tools used in this study were nationally recognised validated tools (quality of life tool appendix V, functional ability tool appendix VI). The rationale for this decision was that it is appropriate to use an existing validated tool if available. The patient discharge/transfer questionnaire was specially designed for this study because there was not a validated tool for this aspect of the study (patient discharge/transfer questionnaire appendix VII).

3.5.1 Quality of Life

As discussed in chapter two, quality of life is not easily measured. To address this element of the study a number of different quality of life tools were scrutinized to examine their appropriateness for this study's defined population group (figure 3.5).

The European Quality of Life (EuroQol – EQ5D) was considered with its five dimensional health state descriptive system and utility score for each health state (EuroQol 2002). The EuroQol's five dimensions are mobility, self-care, usual activities, pain/discomfort, and anxiety/depression.

The Clifton Assessment Procedures for the Elderly (CAPE) has been extensively tested for dependency, reliability and validity (Bowling 2005). It was initially designed to test client groups living in institutions. It consists of two measures for behaviour and cognitive performance (behaviour rating scale & cognitive assessment scale) that cover physical, psychological, social problems, habits, functional status and utilisation of services (Fallowfield 1993)

The Short Form – 36 (SF-36) with its eight dimensions of health (physical functioning, social functioning, role limitation – physical, role limitation – emotional, well-being, vitality, pain, general health perception) was considered but eliminated due to the results of a previous study (Barker 2002). The SF-36 does have its place as a measure to assess quality in the general population (Ware & Donald 1992, Brazier et al 1992, McHorney 1993, Wight et al 1998, Walters et al 2004), but not necessarily for a retired, older and frail population who have experienced a crisis experience with their health. It was felt to be a partly inappropriate outcome measure for the defined population group accessing an intermediate care service. There were a number of anomalies and limitations to certain questions within the tool. For example, question three, where 3 out of the 10 domains were inconclusive and predictable:

Question 3: The following items are about activities you might do during a typical day. Does your health now limit you in these activities?

ACTIVITIES		Yes limited a lot	Yes limited a little	No not limited at all
A	Vigorous activities such as running, lifting heavy objects, participating in strenuous sports	1	2	3
D	Climbing several flights of stairs	1	2	3
G	Walking more than a mile	1	2	3

To ask elderly and frail individuals who had been in receipt of an intermediate care service the answer to the above question can quite often be known without asking the question. It is easy to predict the outcome before the question is asked. Any change to health status will influence the ability to undertake certain daily activities. The researchers felt that these questions were beyond what would be generally expected of this age group. This is not being ageist statement, but a realistic one. The second concern raised was that the sample group felt not just uncomfortable with some of the questions but annoyed that they were asked something that the researcher already knew the answer to that question.

Nottingham Health Profile based on perceptions of health – energy level, pain, emotional reaction, sleep, social isolation, physical abilities (Bowling 2005, The medical algorithms project 2002).

Figure 3.5: Quality of Life Tools considered.

Initially the review of available tools considered longstanding tools to assess their appropriateness. After much deliberation, it was decided to incorporate the Short

Form 8 (SF-8) in this study (copy of SF-8 appendix V). There were a number of influences in drawing to this conclusion. In a previous study (Barker 2002) the Short Form 36 (SF-36) was used, the conclusion from this study was that only certain elements of the tool were appropriate for the use with an intermediate care defined population. The SF-8 is a modified version of the SF-36 and incorporates the elements from the SF-36 that appeared appropriate. This study seemed to be the ideal opportunity to evaluate its appropriateness rather than using a tool that has been used before in an intermediate care sample.

3.5.1.1 The Short Form 8 (SF-8)

The SF-8 is a generic multipurpose survey of health status with only eight question domains, which can be completed in a few minutes (copy of SF-8 appendix V). It was initially developed for use in large-scale general and specific populations. The eight questions were collated from a pool of empirically tested items (physical, function, role limitations due to physical problems, bodily pain, general health perceptions, vitality, social function, mental health and role limitations due to emotional problems). The SF-8 tool has been adapted from the SF-36 and Short Form 12 (SF-12) tools. Permission to use the SF-8 tool was granted by the Medical Outcomes Trust (PO Box 1917, Boston, Massachusetts, USA 02205). The University of Hull - Faculty of Health and Social care had gained access and permission to use the SF-8 questionnaire and manual from the Medical Outcomes Trust, therefore this resource was utilised. The SF-8 and SF-36 both measure the same eight domains.

There are three option of recall for the SF-8. Recall means that the tool can be used for an additional time and a comparison is made with the initial score. The type of recall for the SF-8 includes a 4 week, 1 week and 24 hour recall. This flexibility of

the tool makes the version ideal when focusing on the progression of an acute episode. There is supportive evidence from clinical trials looking at changes in system severity and outcome treatments following acute exacerbations of chronic conditions in the use of the tool (Ware et al 2001). There are however, no published research studies using the SF-8 with an intermediate care population. The rationale to incorporate this tool in this study is that it would build upon a previous study (Barker 2002) and the simplification of the tool was felt to be appropriate for the defined population in this study and would assist in addressing this study's aim and objectives.

3.5.2 Functional Ability

When measuring a change in functional ability the effectiveness of the tool has to be reliable and consistent (Bond et al 1994). There are a number of tools available to measure functional ability, they can be physical and/or observational tests or by interview. Generally, they are self-reporting, respondents are asked to report limitations on a range of different activities. Activities that focus on simple basic function such as mobility or they can be extended to other daily activities such as meal preparation or housework etc. To address the requirements of this study a number of functional ability tools were scrutinized (figure 3.6).

Bowling (2005), highlights that one of the major difficulties in using a functional ability tool is that people may react differently to apparently similar levels of physical impairment depending on their own expectations, priorities, goals and social networks. Equally, individual responses will be viewed differently depending on people's viewpoints on how well others are performing. It is important to decide whether the study is interested in the professionals view point or the patients. For

instance, a patient may consider them self totally independent, because they can walk with the assistance of an aid. A professional may consider the patient is only partially independent because they can mobilise with the assistance of an aid and is not fully independent.

Townsend Disability Scale: comprises a defined list of daily activities. The activities are divided into two distinct categories activities relating to personal existence and those that fulfil them, e.g. drinking, eating, toileting, exercise, sleeping, hearing, washing, dressing, obtaining food, preparing meals, providing and cleaning a home (Townsend 1962, Bowling 2005). Over the years there have been many adaptations to this tool e.g. Bond & Carstairs (1982). Some of the items incorporated in the tool do not have relevance to frail older client groups e.g. running for a bus. On reflection, it is a good tool as a pre-discharge tool and for planning future care needs, but is not suitable for the defined group in this study as there is no reliable evidence for its reliability and validity.

Katz ADL Score: a hierarchical scale using the principle that ability is lost in a defined order. Concluding if an individual can perform one function, then they can perform all the others below it in the hierarchy. Patients are classified according to the number of activities they are able to perform independently (Katz & Apkom 1976). It is for an older population and has little value to non-older client groups. A trained observer completed the tool and reports on clinical purposes on the independence in relation to – feeding, continence, transferring, toileting, dressing and bathing. The negative aspect of the index was the lack of evidence for reliability and validity (Sturgis et al 2001, Bowling 2005).

The UK FIM + FAM (FIM - functional independence measure / FAM - functional assessment measure): Santa Clara Valley Medical Centre (SCVMC), San Jose, California, developed the original tool. Initially the tool was designed for use with brain injury patients. A number of units in the UK introduced the measure as common language measure. Concerns were raised about some of the items in FAM being too vague and subjective. FIM is an 18 item global measure of disability. Each item is scored on seven ordinal levels. The FAM tool adds a further twelve items to the FIM. These twelve items specifically address cognitive and psychosocial function The UK FIM + FAM users group was set up to develop a UK version in collaboration with SCVMC. The UK version kept the seven-level structure, but attempted to improve the objectivity of scoring. The tool is very comprehensive. My concerns are that there is a cost implication to using the tool and that extensive training would be required. It has not been used in this studies defined sample group before and the time it would take to complete would make it impracticable (Turner-Stokes 1999).

Figure 3.6: Functional Ability tools reviewed.

The researcher acknowledges that all tools have their limitations in either the content or method of application. When choosing a tool there are a number of key factors to take into consideration and these include reliability & validity, time, training, cost, method, content, scoring, the need to be unobtrusive and the ability to detect change (Bowling 2005). When choosing a tool to measure functional ability any anomalies or inconsistencies need to be taken into consideration. Many tools measure in one

form or another 'activities of daily living' (ADL). Concerns are raised in the literature that even if an individual scores top marks on an ADL scale, the assessor should not automatically assume that they are free from disability (Philp 1994). Functional status is an important behavioural dimension of health and illness, one that can equally reflect the needs for service assistance and the outcomes resulting from that service intervention (Katz & Akpom 1976). On reviewing existing tools, a decision was made to use the Barthel Index (for a copy of the Barthel see appendix VI). The content of the tool met the expectations of this study, it is quick and easy to implement. The Barthel Index is well-referenced and permission to use the Barthel Index is not required. (Wade & Collins 1988, Eakin 1993, Wyller et al 1995, Laake et al 1995, Bowling 2005, Ellul et al 1998).

3.5.2.1 Barthel Index

The Barthel Index was developed in 1965 (Mahoney & Barthel 1965). It was based upon observed functions (feeding, mobility, hygiene, getting on and off the toilet, bathing, walking, stairs, dressing, continence). In 1988, it was modified to form the now standard accepted format (Wade & Collins 1988). Initially the tool was designed to be used with long-term acute patients with neuromuscular or musculo-skeletal disorders (Mahoney & Barthel 1965, Bowling 2005). It has been widely appraised and adopted as the standard measure of disability (Philp 1994). It is considered by many professionals to be the preferred method to assess patient activities of daily living (Eakin 1993, Wyller et al 1995, Laake et al 1995, Ellul et al 1998) and is currently the recognised tool for use with stroke patients (The Intercollegiate Working Party for Stroke 2000).

The tool is designed to measure a function before and after an intervention or treatment. It is relatively easy to administer and has been tested for reliability and validity (Wade & Collins 1988, Bowling 2005). Bowling (2005) lists a number of studies that have been undertaken to demonstrate validity and reliability. A study by Granger et al (1979) gave it a correlation of 0.74 to 0.90. Collin et al (1988) reported Alpha reliability coefficients of 0.95 to 0.97, suggesting that the scale is consistent. However, there are limitations. It has been criticised for its potential inconsistency and its limited ability to describe the full range of changes in functional ability (Bowling 2005). It omits tasks of daily living such as cleaning, cooking and shopping. The limitations are acknowledged in the literature and this includes the 'floor & ceiling' effect and that it does not always detect changes in function in some patients during the early and late stages of recovery (Ellul et al 1998).

The Barthel is designed to provide a rating score to demonstrate the level of independent functioning in ten activities over a set period - bowels, bladder, grooming, toilet use, feeding, transfer, mobility, dressing, stairs and bathing. The scale should take approximately thirty seconds to score each element, which makes the tool quick to complete. A score of zero is given where the patient cannot meet the defined criteria. The researcher acknowledges the limitations and strengths of this tool. The Barthel has been successfully implemented in intermediate care research studies (Griffiths et al 2001, Steiner et al 2001). The simplification of the tool was felt to be appropriate for the defined population in this study and would assist in addressing this study's aim and objectives.

3.5.3 Interview

To assist in answering the fourth and fifth aim of this study a number of semi-structured interviews were undertaken with thirty-five patients (patient interview schedule appendix VIII), five carers (carer interview schedule appendix IX), ten intermediate care staff interviews (intermediate care staff interview schedule appendix X) and five referrer interviews (referrer interview schedule appendix XI). The semi-structured interviews gave some structure to help keep the process focused, but at the same time allowed flexibility to probe and make sure that the interview experience was purposeful for both the contributor and the researcher. The interview is a useful instrument for data collection, but the robustness of the data is influenced and shaped by the way the questions are posed and by the context in which they are asked (Gomm 2004). Selection of participants is discussed in the sampling section (section 3.4.6). It was not possible due to time constraints to interview everyone contributing to this study.

The rationale for including interviews in the study is that they can enrich and allow the researcher to probe for better understanding of the phenomenon being studied (Polit & Beck 2004). The objective was to obtain valid responses and to record those responses accurately and completely. A face-to-face interaction helps to build a rapport with the respondent and most individuals are willing to contribute verbally rather than written. Interviews do not discriminate against those who are not literate or are not motivated to complete a questionnaire (Burns 2000). There is more control with an interview compared to other methods, as the interviewer is able to control the sequence of events and can record verbatim the respondent's exact words (Bowling 2004). As with any procedure there are risks, there is a risk that interaction with the

respondent may influence the responses and jeopardise the accuracy of the results. Individuals may feel threatened or pressured by the experience, these are all things that must be taken into consideration. It is important that the interviewer has the inter-personal skills and competence not to put the reliability of the results at risk.

3.5.3.1 Interview Design

During the design stage, care was needed to ensure that the interview format was robust enough to guide the process and that the questioning sequence would produce enough information to assist in answering the research aim. The patient questions were developed to trace the patient's journey. The questions were adapted to meet the needs of those individuals residing at home or in hospital (patient interview schedule appendix VIII). The carer interviews were designed to address issues relating to carer burden (carer interview schedule appendix IX). The intermediate care staff questions were designed to explore for reasons why individuals worked in the intermediate care service (intermediate care staff interview schedule appendix X). The referrer questions were designed to ascertain why individuals were referred into the service compared to other mainstream services (referrer interview schedule appendix XI). The questions were initially piloted on three patients, one carer and four members of staff (2 x referrers and 2 x staff members). Minor amendments were made to the format. These amendments were more in relation to the sequencing than content. Piloting of questions was crucial to assess interpretation of the questions and to ensure that they achieved their objective.

All interviews were taped recorded. Tape-recorded interviews ensure that the interviewer or interviewee are not distracted by scribing of the responses and most

importantly allows the interviewer to return to the data in its original form as many times as is required or necessary to interpret the data. It is important to capture the respondent's exact words verbatim while they are responding or there is a risk that important information could be lost. None of the interviewees were concerned or refused to be tape-recorded, although care was needed to ensure that the interviewee was not preoccupied by the tape recorder and not concentrating on their responses.

3.5.4 Discharge/transfer Questionnaire

To further explore patient experience of the intermediate care service (study's fourth aim) a discharge/transfer questionnaire was designed and implemented. The patient discharge/transfer questionnaire was included in this study to capture what was important to the patient and whether they felt that their needs and/or concerns were met (patient discharge/transfer questionnaire appendix VII). This element was to capture crucial information that was not recorded within any other data collection processes. The rationale of including questionnaires in the study is that there are many methods of gathering information and whatever method is selected the researcher must acknowledge that each method will have strengths and weaknesses.

A questionnaire is a method of gathering information from respondents through self-administration of questions in a written format (Polit & Beck 2004). Questionnaires have been incorporated in this study for a number of reasons. They complement other approaches already used, offer structure and are an alternative method to capture missing information. Questionnaires can offer anonymity and allow respondents to document open and honest responses without influence or bias of an interviewer. There are risks and these will be increased or reduced depending on the

quality, layout and content of the questionnaire. To ensure these risks are minimised, when incorporating a questionnaire in a study it is essential to ensure thorough planning (Bowling 2004).

3.5.4.1 Discharge/transfer Questionnaire Design

The primary aim of the discharge/transfer questionnaire was to collect data about the respondent. The questions incorporated in the discharge/transfer questionnaire were written in a format that the respondents understood. This was checked by piloting the discharge/transfer questionnaire before implementing in this study. The success of introducing a self-completion questionnaire is fully reliant on interpretation and the central role of language. This includes the general context in which the questions are set (the frame of reference), and the nature of the responses the researcher expects back (the information level) from the patient. (Cormack 1996). Designing a questionnaire involves a number of inter-related stages including deciding what information is required (relates to the focus of the study), most appropriate means of eliciting this information (structured or semi-structured), the kind of questions that need to be asked (linking into the kind of responses wanted by determining the basic format and context of the questions and answers), the wording of the questions and the layout and sequencing of the questionnaire (Cormack 1996, p238).

The patient discharge/transfer questionnaire consisted of a mixture of open and closed questions. There is criticism in the literature of incorporating both open and closed questions. Gomm (2004) warns that the use of closed questions can force respondents to express ideas they may not have, or in words they may not normally use. Bryman (2001) discusses the use of open and closed questions and points out

that the advantages and disadvantages need to be acknowledged. Burns (2000) concludes that response options offered to respondents will affect their answers, quite often confusing options will lead to unreliable results and possibly low response rates. All these factors were taken into consideration in the planning stage of this study.

Every patient involved in this study was given a discharge/transfer questionnaire on leaving the service. The questionnaire was given by hand by a staff member of the intermediate care team with an accompanying explanation and thank you letter (copy of explanation letter appendix IV). A return stamped addressed envelope was given to help increase the return rate and eliminate any cost to the patient. The discharge/transfer questionnaire was designed for self-completion. There was an option for the patient to include their name and address. This option was given to the patient in case they wanted to raise a question and the researcher would be able to feedback or respond to any issue raised. The questionnaire included eight questions (discharge/transfer questionnaire appendix VII). Each question was linked to the patient's 'quality experience', the 'effectiveness' of the service and clinical governance. The questionnaire was piloted on three patients. Minor amendments were made before implementing in this study.

3.6 Analysis

Analysis is simply a process of organising and synthesizing data to answer a research question(s) and/or to test hypotheses (Polit & Beck 2004). The actual data does not answer the research question. It is the interpretation of the results and the examination of their implication that will assist in answering the research question.

To achieve this data must be processed and analysed in an orderly and coherent manner.

Quantitative data was analysed through a number of statistical procedures. A conscious decision was made to undertake a number of parametric statistical tests. Parametric statistical tests are tests in which assumptions are made about the parameters of the frequency distributions of the variables (Watson et al 2006). A specialist computer software package called SPSS (Statistical Package for the Social Sciences version 14 for windows) was used to undertake the chosen procedures. The data were explored by undertaking a number of statistical tests. Analysis of the data for correlation was significant at 0.05 level (2-tailed). When the sample size was determined (see section 3.4.5 population identification) a decision was made that the significance of the tests would be two-tailed. A two tailed test examines the relationship in both directions (for example, better or worse). Bowling (2004), argues that although one-tail testing reduces the required sample size, it is better to use two-tail tests, as one-tailed testing makes a subjective judgement that testing in the opposite direction would be of no interest and important information might be missed. If there was any change in a patient's quality of life or functional ability in this study, then the researcher wanted to know whether that change was for better or worse. Otherwise, the interpretation of the results would have been jeopardised and the purpose of this study would not have been achieved.

Using the data, it was possible to identify relationships between the different variables (independent and dependent). The rationale for undertaking a number of statistical tests was to look for relationships or significance between the outcome scores. This would assist in identifying any significant difference between the start

and end scores of the SF-8 and Barthel. The difficulty for the researcher is choosing which statistical test to use and how many statistical tests should be included to undertake the analysis. Choosing which statistical tests to include was made easier because the researcher wanted to answer two key questions. Firstly, was the start and end score of the SF-8 and Barthel significantly different and if there was a difference was it for better or worse? Secondly, what was the strength of the relationship between the two scores and how significant was that strength?

To assist the researcher to answer the above two questions a paired t test was chosen because it allowed the researcher to undertake a parametric statistical test to test the difference between two means (Polit & Beck 2004). The two means explored in this study was the start (patients initial score on accessing the intermediate care service) and the end score (when the patient left the intermediate care service) of the SF-8 and Barthel. A t test is used when testing for significant difference between two samples which are related, especially when subjects (the patient) is tested twice in the same intervention (Burns 2000). The t test did make full use of the interval data and has been used in intermediate care research statistical analysis (Plochg 2005). Undertaking a t test allowed the researcher to identify whether the change between the two scores shifted significantly (better or worse). A substantial shift between the two scores would indicate that the difference between start and end score is statistical significant.

If the t test had not addressed the needs of this study, an alternative test could have been used. For example, an Analysis of Variance test (ANOVA). An ANOVA is also used to test the means of independent variables (Polit & Beck 2004). However, the researcher made a conscious decision to use a t test as first choice and would have

only explored other tests if the results were not supportive of this study's requirements. If the distribution was markedly non-normal, then a nonparametric test would have been considered, for example a Mann-Whitney test that tests the difference in ranks of scores of two independent groups or a Wilcoxon test that tests the difference in ranks of scores of two related groups (Burns 2000).

Three additional statistical tests were incorporated in this study to compliment the t test and to give the researcher a graphical illustration of the data distribution and summary. A scatter plot was incorporated in this study to show the summary of a set of two variables (start and end score of the SF-8 and Barthel). It gave a good visual picture of the relationship between the two variables, and aided the interpretation of the correlation coefficient (Polit & Beck 2004). The difference between scores is plotted but not joined. The resulting pattern indicates the type and strength of the relationship between the two variables and whether any cases are markedly different from each other (Burns 2000). A scatter plot graph is an easy method to illustrate the values of two distinct variables in this study by showing a linear correlation.

A box plot was incorporated in this study because it was a helpful tool for indicating whether the distribution of the data (start and end score of the SF-8 and Barthel) were skewed and whether there were any unusual observations (outliers) in the data set. Box plots are very useful when large numbers of observations are involved and when two or more data sets are being compared (Burns 2000). A box plot was undertaken by calculating the difference between the start and end scores of the SF-8 and Barthel. A box plot is a way of summarising a set of data measured on an interval scale. It is often used in exploratory data analysis. The plot box consists of the most extreme values in the data set (maximum and minimum values), the lower and upper

quartiles and the median (Polit & Beck 2004). The box plot compliments the other tests used and gave a good visual illustration of the distribution of the data in this study, but its main strength was that it showed the outliers in the data set and could be split between genders for an additional comparison.

A histogram was incorporated in this study because it provided a graphical summary of the shape of the data distribution. A histogram represents the frequency distribution of continuous data (Watson et al 2006) and is a way of summarising data that are measured on an interval scale (either discrete or continuous). It is often used in exploratory data analysis to illustrate the major features of the distribution of the data in a convenient form (Burns 2000). It divides up the range of possible values in a data set into groups and for each group a rectangle is constructed with a base length equal to the range of values in that specific group, and an area proportional to the number of observations falling into that group. This means that the rectangles might be drawn of non-uniform height (Polit & Beck 2004). Incorporating a histogram in this study allowed the researcher to visually see a lot of information instantly. To visually see the data presented in a histogram allowed the researcher to detect any unusual observations, outliers, or any gaps in the data set.

Just testing the mean values of two sets of scores is not thorough enough for the analysis in this study and there needed to be additional testing to fully explore what the data were presenting. A pearson correlation coefficient was undertaken. A pearson correlation coefficient is a parametric measure of correlation (Watson et al 2006). A pearson correlation was used to measure the linear association between two variables. For example, to test whether there was any relationship between age and reduction in service when a patient leaves the intermediate care service or length of

stay on the intermediate care service and any reduction in service provision on discharge. A Pearson correlation is a statistical test that allows the researcher to validate if there is a significant relationship between scores and is employed when both variables are expressed as interval data (Burns 2000). Spearman's rho rank order correlation could have been used, but this method is best suited when there are only a few subjects involved and on closer examination it was decided that a Pearson correlation would be the best method for this study. The reason for this decision is that a Pearson correlation is the most widely used method when undertaking a correlation coefficient (Burns 2000).

To further explore the data a number of partial correlations were undertaken. Partial correlations were used because they allow the researcher to look at the relationship between two variables when the effect of a third variable is held constant (Polit & Beck 2004). A partial correlation is often used to help sort out alternative theoretical explanations for the relationship among variables (Burns 2000). The reason for incorporating a partial correlation in this study was that this statistical test allowed the researcher to explore additional variables other than the SF-8 and Barthel start and end scores. The researcher acknowledges that there are other statistical tests that could have been incorporated. However, the chosen tests were chosen because they were felt to be sufficient to meet the aims of this study. Additional tests would have been incorporated if the chosen statistical tests did not meet the needs of this study's quantitative element.

The final statistical test undertaken in this study was a cross-tabulation of the SF-8 and Barthel start and end scores. A cross-tabulation is a two dimensional frequency distribution table in which the frequencies of two variables are cross-tabulated (Polit

& Beck 2004). A cross-tabulation was undertaken to determine the number of cases occurring when the two variables (start and end scores of each of the SF-8 eight questions and the Barthel) are considered simultaneously. The results of a cross tabulation are presented in a table with rows and columns divided according to the values of the variables. The result of the tabulation allows the researcher at a glance so see whether there has been any change between scores. A cross-tabulation has been a valuable tool to further explore and understand the difference between scores.

To address the qualitative element of this study, qualitative material was manually examined by conceptual ordering and theorising of the content through a microscopic examination of data. This microanalysis as defined by Strauss & Corbin (1998) page 57, is purely a:

“Detailed line-by-line analysis necessary at the beginning of a study to generate initial categories (with their properties and dimensions) and to suggest relationships among categories; a combination of open and axial coding”.

The process was to see how the interviewee had used single words, phrases and sentences and in what context, to look for relationships and to distinguish if there was any consistency or patterns in the text. This could only be achieved by taking the data apart. The microanalysis was conducted by continually comparing the data to determine if there were patterns and/or similarities. This procedure was guided by using Glaser & Strauss’s and Strauss & Corbin techniques and procedures for developing a grounded theory approach (Glaser & Strauss 1967, Strauss & Corbin 1998).

Strauss (2003) argues that grounded theory is purely a style of conducting qualitative analysis and that it is simply a process to aid a better understanding of social phenomena. This does not mean that this is a grounded theory study. To achieve a better comprehension of the social phenomena the analysis of the data was achieved through coding, this was done early and continuously. In conjunction with the coding, analytic memos were made to support the process. During the extensive coding process, a number of key themes were identified. The key themes were either key words or phrases within a time-line of the individual experiences. The term 'theme' in the context of this study is defined as

“An abstract entity that brings meaning and identity to a current experience and its variant manifestations”

(Polit & Beck 2004 page 578).

To summarise, the analysis process in this study took a step-by-step microscopic examination of the patient's, carer, intermediate care staff and referrer interview transcripts. The step-by-step microscopic examination was achieved by undertaking a number of open and axial coding. The information highlighted during this process was then related to categories within the text and these categories were then written as memos. In the final stage of the analysis process themes were drawn from the memos. The memos gave the foundations for the structure to form theory building. Figure 3.7 illustrates the steps that the researcher took in more details and shows the logical order taken. The themes identified were then developed and presented to show a visual interpretation of the data and these are presented in chapter four (see section 4.5 and 4.6)

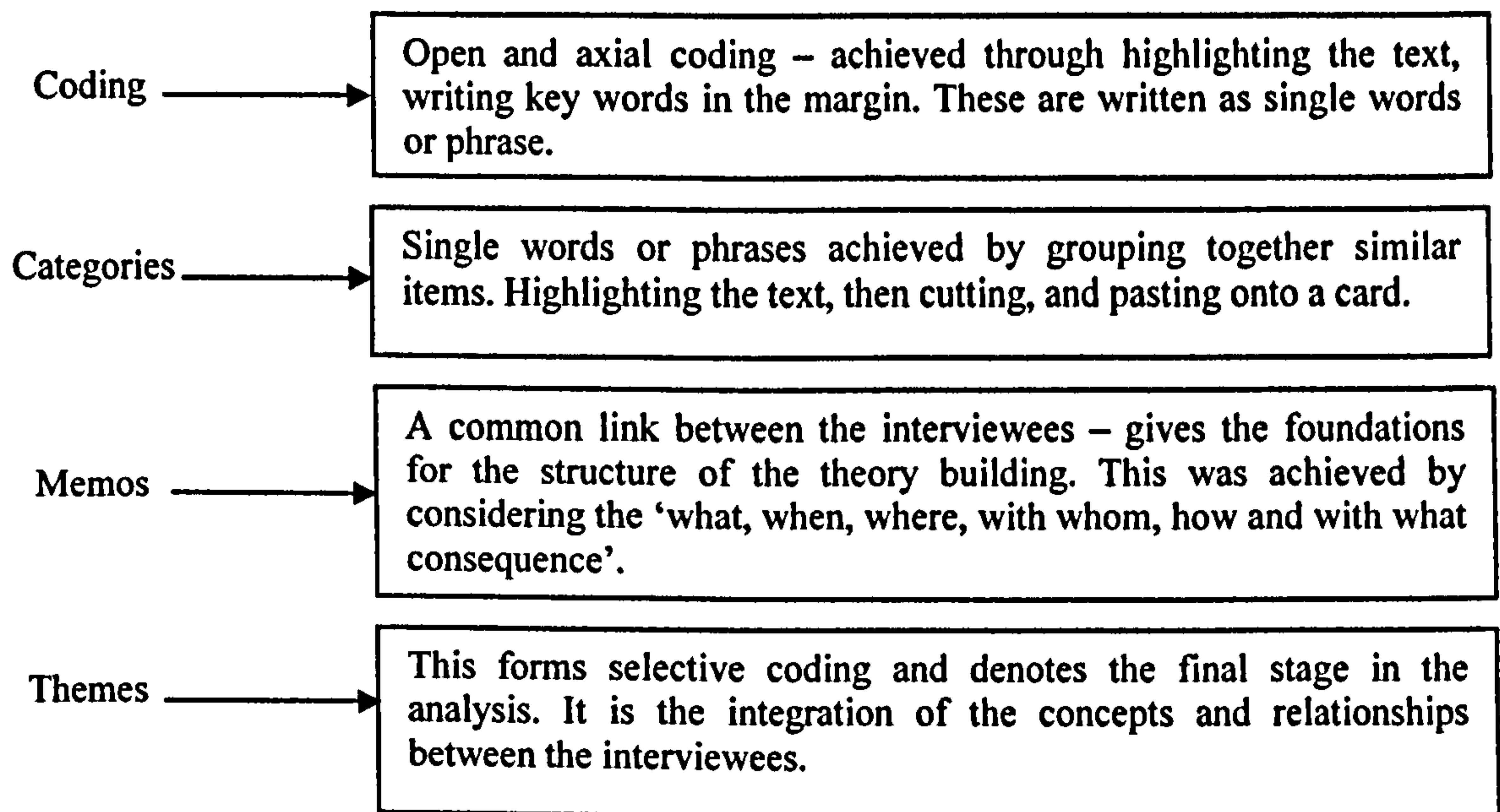


Figure 3.7: The process of qualitative analysis

3.7 Methodology Discussion

This chapter has outlined the study design and the methods used in this mixed methods longitudinal study. The study was designed to evaluate an intermediate care service using the patient’s journey to evaluate effectiveness in the broadest sense. The chapter has been presented in a logical order as defined by the study’s aims and objectives. In the planning stages of this study one of the key questions asked was ‘what research methods should be used to answer the research aims’. Research methodologies should not be seen in isolation from each other when addressing the many different possible facets of a research aim. As stated by Punch, the researcher must be clear on what the study is trying to achieve or else the study will lose focus and be unmanageable.

“Are we interested in making standardized comparisons, sketching contours and dimensions, quantifying relationships between variables and accounting for variance? Or are we more interested in studying a phenomenon or situation in detail, holistically and in context, focusing on interpretations and/or processes?”

The multifaceted nature of intermediate care makes it difficult for a single research methodology to address the needs of this study. In addressing the complexity of this study two vital decisions were made in the initial planning stages and these were to undertake a mixed methods study and that this study would not be an RCT. The rationale for this decision is discussed below in section 3.7.1.

3.7.1 Rational for Combining Research Methods

In undertaking any piece of research there are potentially many different approaches for collecting and analysing data. Sometimes the logic of the study will direct itself towards either a quantitative or qualitative method. Punch (2000) states that this logic should flow through naturally into the design, sampling, data collection and data analysis. An assumption drawn from the intermediate care literature is that the complexity of intermediate care cannot be evaluated comprehensively using a single method approach.

Mixed methods approaches have been used successfully before in evaluating elements of intermediate care (Plochg et al 2005). Single methods approaches have been used to evaluate sections of what contributes to an intermediate care service, but these have been restricted in the areas of investigation (Shepperd et al 1998, Brooks 2002, Steiner et al 2001). The intermediate care knowledge base lacks thorough consistent approaches to its evaluation (Steiner et al 1997, Stevenson 2001, Stevenson & Spencer 2002, Martin et al 2004, Wade 2004). The intermediate care model is complex and there is a need to understand the human side of change and equally to explore the internal and external factors influencing that change as discussed in chapter two, or the robustness of the study would have been put at risk.

There are merits to incorporating either method of investigation, any chosen method should be viewed as lenses, lenses that shape our focus and not become blinkers (Polit & Beck 2004). Punch (2005, page 235/6) states that researchers should not become too opinionated. Each approach has its strengths and weaknesses and over-reliance on any one method is not appropriate. The task is to understand both the strengths and weaknesses, to analyse any particular research situation taking into account its strengths and weaknesses, and to select the approach, or combination of approaches, on the basis of the analysis (Williamson 2005). Mixed methods approaches have been used successfully in nursing research (Cowman 1993, Sim & Sharp 1998, Williamson 2005, Plochg et al 2005, Dibb & Yardley 2006, Murphy et al 2007, Groleau et al 2007, Stewart et al 2008). Therefore considering the arguments for or against incorporating a mixed methods approach in this study it was felt using a single methodology would be a blinker and would not assist in answering this study's research aims. The rationale is to capitalise on the strengths of each approach and by doing this it will compensate for their weaknesses (Cowman 1993, Bradley 1995, Wendler 2001, Williamson 2005).

Elements of this study's research design did favour a more quantitative approach. Quantitative data were included in this study to assist in answering the research aims and to provide a numeric description of the data that could be measured and quantified by statistical analysis. The rationale for incorporating qualitative research methods in this study is summarised by Punch (2005) who argues that qualitative research is not a single entity, but an umbrella term that encompasses enormous variety and diversity. Using this type of approach in a study allowed deeper understanding of the subject being explored. In contrast to quantitative methods, it allowed further exploration and did not rely purely on statistical analysis. Qualitative

methods can assist the researcher to explore the topic area in more depth especially when the theory base is immature (Morse 1991). As supported by Tashakkori & Teddlie (1998) there is a variety of methods that can be harnessed to assist in answering the research aim and although both traditions have ardent supporters, there are clearly 'bridges' between the two.

No research method is without bias and as argued by Denzin (1978), the triangulation of methods can help to elevate the researcher above personal biases arising from the use of a single method and the deficiencies that come from using either one investigator or method. When combining methods there is still a risk of bias and care was required to reduce that risk or the rigour of this study would have been put at risk. The research aims in this study are complex, combining methods in this study has broadened the horizon, allowed depth to the evaluation and has enriched the quality of the analysis. Previous evaluation studies have not been comprehensive in trying to understand the patient's entire journey and the influences on it (Stevenson & Spencer 2002, Martin et al 2004, Wade 2004). The mixing of approaches is supported in the literature (Clark 1998, Tashakkori & Teddlie 1998, Creswell 2003). However, as stated by Polit & Beck (2004), there is an argument that the two methods are totally incompatible methods and this must be acknowledged. Each approach can clearly stand on its own merits and scholars should not argue which is better than the other, but acknowledge that it is possible to incorporate the two in a study of investigation (O'Rourke & O'Rourke 2000).

There is much debate as to the merits of using either a single or mixed research method (Tashakkori & Teddlie 1998, Gomme 2004, Punch 2005, Williamson 2005). It is clear in the literature that the qualitative-quantitative debate has not been

resolved and will continue among scholars (Tashakkori & Teddlie 1998, Creswell 2003, Gomme 2004, Punch 2005). Jick (1979) argues that quantitative and qualitative methods should be viewed as complementary rather than rivals. Using dual investigation and combining different methodologies assists in the triangulation of results, cross-validating and corroborating the findings. Combining approaches can result in well-validated and substantiated findings (Creswell 2003). As with any approach, there can be limitations. Any anomalies must be acknowledged and any deficits identified to ensure that the research is thorough and comprehensive. The rationale for combining methods is obvious, as stated by Punch (2005, page 239) the question should not be how or why, but to ask - "*What, exactly, are we trying to find out*". In answer to this question, this study's comprehensive exploration of the patient's journey could not be achieved using a single method approach.

3.8 Chapter Summary

This chapter has explained the methods used to answer this study's aims and objectives. The study design was chosen to illustrate the general principles of investigation and to give structure to the study. The chapter has explained how data were collected and analysed. It has given a rationale why the mixing of qualitative and quantitative research approaches has enriched this study. It has argued the case for not undertaking a RCT to ensure consistency in its research design. The next chapter presents the results obtained by the methods described in this chapter.

This chapter documents the results of all data collected during this longitudinal mixed methods study. The chapter is organised in terms of the study's aims (for more detail see section 3.2). To assist with the appreciation of the analysed data, the results are published and presented in the form of summaries, individual quotes, tables, graphs and diagrammatic flow charts to illustrate key themes.

4.1 Introduction

Combining quantitative and qualitative approaches has given insights that would not have been possible without the integration of different methods. Analysing the raw data generated by the mixed methods approach has assisted the researcher to explore the data in far greater depth than would be possible using a single method approach. Taking a statistical approach has helped the researcher to organise the raw data and provided the essential tools and processes to develop the evidence base.

The overall purpose of the study was ambitious and the five key aims were comprehensive. The aims in this study related to service effectiveness in the broadest sense. The study gave a chronological account of the patient's journey within an intermediate care service and included patient, carer and staff opinions (intermediate care staff and referrers). The patient's journey is defined as an exploration of the distance travelled in a specified time period and documents all the significant events that occurred during that period. The journey began prior to the patient accessing intermediate care service and included their experience of the service, post service intervention and follow up at twenty-eight days and six months. The analysis drew

on the collective examination of all significant events, influences (internal and external) and individual experiences during the patient's journey as illustrated in figure 3.3. The purpose of the study was to explore whether an intermediate care service could enhance an older person's independence and quality of life. The researcher acknowledges that this study was limited to a defined geographical area, and one example of what contributes an intermediate care episode. However, the research design is logical, consistent and can be transferred to other examples of intermediate care.

4.2 Factors Influencing Patient Care and Outcome

The first aim of this study was to ascertain what factors influenced the care and outcomes for individuals who were in receipt of an intermediate care intervention. The objective was to investigate a number of key factors that could have influenced care and outcomes for the patient. Particular attention was given to exploring the degree of care required by patients and a review of basic demographics including age, gender, length of stay and living arrangements.

4.2.1 Age Ranges and Gender

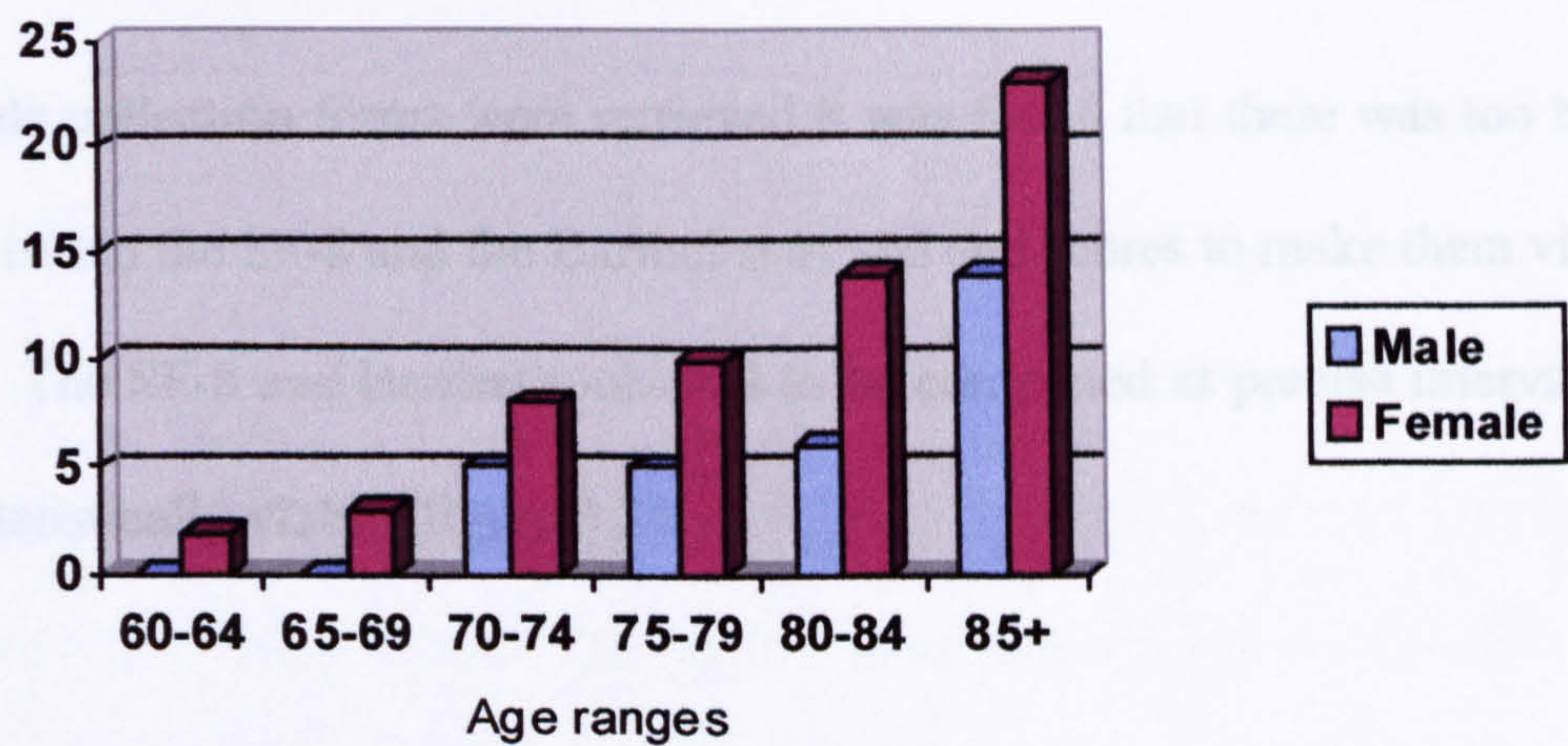
A review of age ranges and gender was considered important for three reasons. Firstly, age and gender are both influencing factors on outcomes (Bond et al 1994). Secondly, a comparison can be drawn with local and national population demographics (Office of Population Censuses and Surveys 1991, Directors of Public Health Annual Report 2004) and thirdly, because older people are expected to be the main client group to access intermediate care services (Wade 2004).

The age ranges for patients participating in this study were between 63 and 101 years. The youngest male participant was 70 years old and the youngest female participant was 63 years old. The eldest male participant was 98 years old and the eldest female participant was 101 years old. Table 4.1 shows the age measurement of central tendency. It shows that the mean age for all patients was 81.26 years. The mean age was computed by summing all scores and dividing by the number of subjects (N=90). The exact middle value in the age distribution was 81.50. Within the distribution scores for patients the age that most frequently occurred was 86 years of age. It was not anticipated that the mean and median would be so close in value.

Mean	81.26
Median	81.50
Mode	86

Table 4.1: Age Measurement of Central Tendency

The review of ages concluded that the vast majority of people accessing the intermediate care service were in their latter years (over the age of 80 years). This is supported by the literature (DoH 2001a, Wade 2004). Graph 4.1 illustrates the age and gender split of patients participating in this study. The graph shows clearly that the majority of patients accessing the intermediate care service were over the age of 80 years. That the number of women outweighed the number of men in this study and secondly that the gap between male and female appears too increased with age. The gender split matched the national prediction for gender split in the population (Office of Population Censuses and Surveys 1991, Office for National Statistics 2001). It was coincidental that the gender split in this study represented local and national population trends (2 to 1 ratio).



Graph 4.1: The study's age range by gender

The study's sample was N=60 female and N=30 male. A review of age ranges was significant in this study because there is evidence that disability increases with age (Bond et al 1994). As previously stated the majority of patients accessing this study were in their latter years (over 80 years of age) and all had degrees of disabilities'.

4.2.2 Sample Size

The minimum sample size for the study was N=85, using power analysis to ensure that the sample was statistically significant (section 3.4.5). The final sample size for this study was N=90. There were a number of contributing factors that delayed reaching this target and these are outlined in table 4.2.

Influencing factors	Total
Lost data due to incomplete information	39
Refused permission to participate in research study	6
Disqualified	1
Left service before completing	2
Cross boundary issues, care taken over by another intermediate care service	1

Table 4.2: Influencing factors delaying sample target.

Intermediate care staff sickness resulted in thirty-nine partially completed data collection forms being rejected by the researcher. When the thirty-nine partially

completed data collection forms were retrieved it was found that there was too big a time lapse between the SF-8 and the Barthel start and end scores to make them viable in this study. The SF-8 and Barthel tools had to be completed at precise intervals to make them statistically viable (figure 3.3).

Six individuals selected to participate in the study did not give their consent to take part and were therefore excluded from the study. These six individuals did continue to receive a service from the intermediate care team. Another individual was disqualified from taking part in this study because they did not meet the access criteria, they were not aged 60 years and over. Two individuals left the intermediate care service before completing their intermediate care episode. The reason why they left the study was that one individual was admitted to hospital (routine waiting list for a surgical procedure) and the second person moved out of the area. Another individual had their care taken over by another intermediate care service out of the area and they had to leave the study. The reason why they had to leave the study was because the researcher did not have ethical approval to undertake a research study in their new geographical area. Within the time restraints of this study, to gain additional ethical approval from a new organisation would not have been viable or practical.

4.2.3 Number & Type of Referral

Patients can access the intermediate care service directly from home as a 'prevent admission into an acute hospital' referral or directly from an acute hospital as an 'early discharge from an acute hospital' referral. Referrals into the service are accepted from anyone, including statutory, voluntary, private/independent agencies and the general public. The majority of patients accessing this study were early

discharges from hospital referrals (70%). The early discharge from hospital element of the intermediate care service enabled individuals to be discharged from an acute hospital earlier to continue their rehabilitation at home. Patients who were in a crisis at home (30%) were supported to prevent them from going into an acute hospital in the first instance. This option allowed the patient to remain at home in a time of crisis and to relieve pressure on acute hospital beds (see section 1.4 for more details on why this is important). A review of the previous year's admissions into the intermediate care services showed that one-third of people were referred into the service to prevent an admission to an acute hospital and two-thirds were early discharge from an acute hospital. Unknowingly this was reflected in the sample of the study.

Who actually made the referral to the intermediate care service is reflected in table 4.3. The information collated in table 4.3 informed the researcher what areas were referring into the intermediate care service and assisted the researcher to identify possible individuals for the referrer interviews.

Who made the referral	Total
Acute Hospital	40
GP	15
Community hospital	14
Social worker	7
Other, private care agency (1), day hospital (1), acute assessment unit (2), acute therapist (2).	6
Community nurse	3
A&E	3
Self/family	2
Community therapist	0
	Total
	N=90

Table 4.3: Who made the referral?

The majority of referrals were received from acute hospitals (40 referrals) and community hospitals (14 referrals). Surprisingly only three referrals came from Accident & Emergency (A&E) to prevent an admission into hospital. The main community source to prevent an acute hospital admission were from GPs (15 referrals).

To understand elements of the patient's journey one of the questions asked of the referrer by the intermediate care team was 'what would happen to the patient if they did not access the intermediate care service'. Table 4.4 illustrates what would have happen to the patient if they were not referred to the intermediate care service. The information was established by the intermediate care team at the point of referral. There are a number of conclusions that can be drawn from table 4.4. As outlined in chapter one, the policy drivers for intermediate care places a number of expectations on the service. This includes reducing pressure on acute beds, cost savings by preventing admissions into an acute hospital, and reducing reliance on long-term future continuing care needs of the patient.

What would have happened to the individual if the intermediate care service had not intervened	Total
Remained in hospital longer	26
Referred to social services	22
Admitted to an acute hospital	20
Admitted to respite care	13
Other – Remain in permanent residential care (1), remain in the Stroke rehabilitation unit longer (4), family to come and stay (1).	6
Admitted to community hospital	2
Referred to the primary health care team	1
Sent to A&E	0
Total	N=90

Table 4.4: What would have happened with no intermediate care intervention?

As discussed in section 1.4, the changes in how health care is delivered were based on a need to reduce public expenditure and the reallocation of resources (Spurgeon 1991, Allsop 1995, Ham 1996). Twenty patients in this study would have been admitted to an acute hospital. Preventing these individuals from being admitted into an acute hospital is an estimated cost saving of £36,000 (DoH 2004 a). This figure covers the actual cost for an admission and excludes ambulance transport and a charge for length of stay in an acute hospital (linked to their individual diagnosis). Any alternative outcome for a patient could facilitate an additional cost to the Primary Care Trust (PCT - health organisation responsible for the care of its registered GP patients), the Local Authority social services department (statutory agency responsible for commissioning social care needs) or the patient.

4.2.4 Living arrangements and housing information

This element of the study reviewed patient's living arrangements and included what type of housing they lived in. The rationale was that individuals living arrangements might be an influencing factor on a person's outcome. The majority of people lived in a house (forty-four patients - 48.9%) or in a bungalow (twenty-nine patients - 32.2%). The remaining lived in a flat (seventeen patients - 18.9%). Six of the people who lived in a flat were living on the ground floor and the others either had one or two flights of stairs to climb.

The majority of people lived alone in their own home (fifty-two patients – 57.8%) or lived in their own home with another person (twenty-eight patients – 31.1%). Six of the patients who accessed the intermediate care service lived in sheltered housing, two lived in a residential home and two lived with relatives.

There did not appear to be a relationship between living arrangements and type of housing. Where people lived did not appear to influence their care outcome. Mechanisms can be put in place to reduce or eliminate any influence on the patient and their environment. The majority of individuals did live in a house and alone, but care support mechanisms can be put in place to reduce isolation and support activities of daily living. Where there was difficulty with stairs, then the patient's bed was brought down stairs. If toilet facilities were up stairs and these could not be easily reached, then they were given a commode. If patients did not have the functional ability to prepare meals, then a private care agency was commissioned to prepare meals.

The conclusion is that mechanisms can be put into place to reduce influences on the home environment in order to allow individuals to remain at home. A dilemma can occur for those individuals who live in a flat and are unable to manage the stairs. The risk is of social isolation and a potential fire hazard. Individuals can be recommended not to return home, but sometimes the patient and their family accept those risks and if it is patient choice they may return home. Fortunately, in this study this problem did not occur, but there was a potential risk for eleven patients.

4.2.5 Length of Stay

Government policy advocates a maximum length of stay in an intermediate care service of six weeks (42 days) or a minimal length of stay of one week (7 days) (DoH 2001). The majority of participants in this study fell into the timescale set by the government policy of six weeks. There is some discussion in the literature that the government policy of a maximum length of stay of six weeks is not realistic

(Wade 2004). There clearly needs to be some flexibility so that the intermediate care intervention is patient focused and not policy driven. The longest length of stay by a patient in this study was 98 days and the shortest length of stay was 5 days. The patient's length of stay was influenced by their own rehabilitation goals and their individual ability to improve following their initial crisis. Length of stay was not influenced by the type of admission into the intermediate care service (prevent admission into an acute hospital and early discharge from an acute hospital). Length of stay did not appear to be influenced by their housing arrangements. Age and gender in isolation did not appear to influence the patient's length of stay either. The main contributing factor appeared to be the patient's individual rehabilitation goal and subsequent outcome measure.

Table 4.5 shows the length of stay measurement of central tendency. It shows that the mean length of stay was 36.76 days, this was computed by summing all scores and dividing by the number of subjects (N=90). The exact median value in a score distribution was 35 days. Within the distribution scores the total days that most frequently occurred was 42 days (33.3%) – exactly 6 weeks as advocated by government policy (DoH 2001).

Mean	36.76
Median	35.00
Mode	42

Table 4.5: Length of Stay Measurement of Central Tendency

There are far too many underlying influences that could affect a patient's length of stay and as a single variable length of stay was weak. However, collectively when reviewed with other variables its influence changes. The majority of patients (33%)

did stay on the intermediate care service as advocated by government policy (DoH 2001). However, as raised in the literature length of stay does need to be flexible and patient focused rather than enforced by policy (Wade 2004).

4.2.6 Diagnosis

The diagnosis recorded in this study related to the medical reason why the individual was referred to the intermediate care service. Table 4.6 illustrates the type of diagnosis that was recorded and the total number of each diagnosis.

NUMBER	DIAGNOSIS
32	Fall
16	Stroke
9	Hip replacement
9	Knee replacement / Knee surgery
4	Spinal compression / back pain
2	Heart failure / heart disease
2	General deterioration
2	Parkinsons disease
2	Arthritis / Osteoporosis
1	Chest infection
1	Coronary artery bypass graft
1	Fracture
1	Amputation
1	Nephrectomy
1	Foot surgery
1	Arthroplasty
1	Hysterectomy
1	Multiple Sclerosis
1	Urinary infection
1	Digestive system problem
1	Dehydration
N = 90	

Table 4.6: Diagnosis

The diagnosis decision was made by the referrer. Patient's diagnosis was recorded to see whether or not an individual's length of stay with the intermediate care service was influenced by their diagnosis for accessing the intermediate care service.

A relationship between diagnosis and length of stay could not be identified as there were too many other underlying influences to take into consideration. For example, patient four was recovering from a chest infection and had a length of stay with the intermediate care services of 21 days and patient thirty-two was recovering from a stroke and had a length of stay of 22 days. Comparisons between these two patients cannot be made, because there are too many underlying influences on their individual outcome and personal goals. The many underlying influences related to patient past medical history, current health problem, expectation, personal goals and the reason why they accessed the intermediate care service.

On further analysis of the data collection forms, it was noted that all patients had multiple medical problems. The conclusion drawn is that there is a multitude of reasons that could have influenced length of stay and in isolation this variable is not robust enough to form a strong relationship. However, what can be drawn from this data is the variety of influencing medical problems that result in people having to access the intermediate care service.

4.2.7 Level of Social Care

A review was undertaken of the care needs of the patient. This review related to social care provided by external care agency (private agency supplying personal care, domestic care and other care needs for example shopping). The information was gathered to ascertain whether there was a relationship between the levels of care an

individual received prior to accessing the service compared to the discharge/transfer arrangements. The results of this review are illustrated in table 4.7

Social Care on discharge/transfer	Total
No services	43
No services before, but now requires some support	13
Required services before and still requires services	23
Had services before accessing intermediate care, but now no longer requires support	11
Total	N=90

Table 4.7: Social care on discharge/transfer

The review of care needs did take into consideration the influence of other care sources including family and friends. A total of fifty-six patients were receiving a level of social care (paid care) prior to accessing the intermediate care service. The social care was provided by an external social care agency. The level of support varied between a comprehensive package including personal care and domestic support or a simple weekly shop. This compared to thirty-four patients who were not receiving any prior social care support before accessing the intermediate care service. The care input was not being supplemented significantly by family or friends.

On discharge/transfer from the intermediate care service fifty-four patients did not require any further social care support from a care agency. This is an increase of twenty patients compared to the initial figure of thirty-four. Eleven of the fifty-four patients had received social care services from a care agency before accessing the intermediate care service, but no longer required that support on discharge/transfer from the intermediate care service. The reason for this change related to a positive change in their coping mechanisms to manage without support. This support had not been replaced by another source (e.g. family).

In total thirty-six patients required a level of social care support on leaving the intermediate care service. Thirteen of the thirty-six patients required additional social care support, but previously had received none. Twenty-three patients had been in receipt of care services prior to accessing the intermediate care service and still require social care support from an external care agency on discharge/transfer. From the thirty-six patients who require support, twenty-one patients had a reduction in their social care needs and this was from minor ($\frac{1}{2}$ hour reduction) to significant (7 or more hour's reduction per week). On further examination of those who had not experienced a reduction, it was noted that fifteen patients did have very complex health and social care needs. These complex needs were influenced by their long-term medical conditions (e.g. Stroke, Parkinsons disease, Multiple Sclerosis).

One of the external policy drivers in the development of intermediate care was to reduce long-term care needs. This is the reason why social care input is such an important variable to include in this study. It was calculated that patients in this study received a total of 502 care hours per week before accessing the intermediate care service. However, when re-calculated on discharge/transfer from the intermediate care service the total was reduced to 234 care hours per week. This reduction is significant because there is a saving of 268 care hours per week.

From a cost analysis viewpoint this is a significant reduction in the number of care hours provided on discharge/transfer from the service. At the time of this study the average cost per hour for care was £7.20. Care on discharge/transfer was reduced by 268 hours, resulting in a cost saving of £1,929.60. This element of the study did take into account the contribution of family and friends, but the input was not significant. It was noted that the reduction in care hours was not significantly influenced by

family or friends taking over that role. Only five patients had their care reduced by the increased contribution of their family. This resulted in a saving of nine hours (9 out of a total of 268 care hours).

4.2.8 Discharge /transfer Destination

As discussed in the first chapter, one of the political drivers for the implementation of intermediate care services was to reduce the reliance on long-term continuing care needs (Enderby & Stevenson 2000). On discharge/transfer from the intermediate care service it was noted that the majority of patients (eighty-eight patients) completed their episode of care in their own home. One patient remained in permanent residential care and another had moved into a relative's home.

This result is significant for the study's participants, because the majority of them did not require access to alternative accommodation and were able to remain in their own home (97.78%). Only one individual required permanent residential care. The researcher acknowledges that this is a small sample, but any delay on the reliance of scarce resources and any intervention that assists individuals to maintain independent living are significant.

4.2.9 Date of Discharge/transfer from the Service

When the intermediate care staff documented the patient's date of discharge/transfer from the intermediate care service they were asked to record whether or not there were any delays in the patient leaving the service. Any postponement in transfer would impact on the service readiness to respond to a crisis to prevent an individual from being admitted to an acute hospital or to facilitate an early discharge from an

acute hospital. Staff recorded that fifty-two patients did not experience a delay in discharge/transfer from the service. However, thirty-eight patients did experience a delay.

Thirty-one patients were delayed because their social care package could not be re-provided with an independent care agency. The delay in re-provision was caused by the lack of capacity to provide the package of care by the new care agency. Two of the patients had a complex package of care and the new care agency staff required a period of handover and training. Delays in supplying equipment affected five patients. The delay in supplying equipment was caused by transport issues and actual access to the equipment required by the patient. Equipment is not an infinite resource, financial implications and provider budgets can influence its timely availability. Any delay in discharging/transferring patients will affect the robustness of the intermediate care service to response to patient needs.

4.2.10 Discharge/transfer Destination and Location at Twenty-Eight Days and Six Months

Patients were followed up on leaving the intermediate care service at twenty-eight days and six months. The examination included any change in location and whether there were any changes in their personal circumstances. The time period of twenty-eight days were reviewed because there was comparable data for a baseline. The time period of six months was considered as a comparable length of time post discharge/transfer.

All acute hospitals have to report all re-admissions as an emergency within twenty-eight days post discharge to the DoH. The national figure for acute hospitals

readmission rates as an emergency within twenty-eight days is approximately 5% and for older people the figure is increased to 7%. The readmission rate from all acute hospital providers in this study's geographical area was 5.5%. The main acute hospital contributor to this study had a readmission rate of 6%. The readmission rate for the intermediate care service used in this study was 3.3%. However, the readmission rate for the study sample was 2.2% (table 4.8).

There is a considerable difference between the intermediate care service and the acute hospital readmission rates (locally and nationally). The readmission rates for both the intermediate care service and study sample is far lower than the national and local acute hospital rates. Intermediate care predominately supports older people. A readmission rate of 2.2% is considerably lower than the national older people's readmission rate of 7%.

Readmission rate at 28 days following discharge	Total
Studies sample (N=90)	2.2%
Intermediate care service (target population)	3.3%
All local acute providers	5.5 %
Main acute contributor to this study (93.3% of the acute hospital referrals into intermediate care)	6%
National – age 16 years and over	5%
National – older people	7%

Table 4.8: Benchmark for readmission at 28 days (www.chi.nhs.uk)

When the patient was contacted and questioned about any changes in their location at twenty-eight days (location relates to where the patient was currently residing and whether there had been any change in their living arrangements since leaving the intermediate care service), a total of eighty-seven patients reported that there was no change since they had left the intermediate care service. However, three people had

reported a change in location at twenty-eight days. Two patients had reported that during this period they had been readmitted into an acute hospital. The reason for their readmission did not relate to their initial reason for accessing the intermediate care service. One patient was readmitted because of an extension of their stroke (initial stroke was not the reason for accessing the intermediate care service). Another patient was readmitted for an acute assessment, because there had been a change in health and required further investigation. The third patient had been admitted into residential care. This change in location was required, because the individual could no longer manage at home and required twenty-four hour supervision in a care environment. There had been a general deterioration and their package of care and the independent social care provider could no longer support them at home safely.

Patients were also asked if there had been any change in circumstances since they had left the intermediate care service. The patient's discharge/transfer destination might remain the same, but there can still be a change in circumstances. The examination of any change in circumstances related to any change to their support mechanisms or health status. A total of eighty-five patients reported that there was no change in their circumstances following their discharge/transfer from the intermediate care service.

However, five patients had reported a change in circumstances. The two patients who had been admitted into hospital had required an increase in social care. The patient who had been admitted into residential care could no longer be supported at home and required twenty-four hour supervision in a care environment. Two patients had improved since leaving the intermediate care service and have had their social care

package reduced. One of them had their social care package reduced from four calls a day to three calls a day (they no longer required a teatime call). The other patient had reduced their care package from two calls a day for social care to twice weekly for shopping and domestic support.

The second review of location and change in circumstances took place at six months. Sixty-four patients reported no change in location at six months. Twenty-six patients had reported a change in location at six months. In comparison to change in location at twenty-eight days there is a slight increase at six months. Five patients reported a change at twenty-eight days compared to twenty-six patients at six months. There are many external influences that could affect this difference. An assumption made is that the longer the time since an intervention, the less likelihood that the intervention remains effective (Bond et al 1994). As previously stated, one of the main political drivers of the DoH was to develop intermediate care services to reduce the reliance on future continuing care services. From the government's perspective it could be assumed that this is a positive outcome for the patient, because the majority of them had remained at home and less dependent

There were a number of reasons why there was a change of location for the twenty-six patients at six months. Four patients were being cared for by the intermediate care service for a second time. Six patients had died since being discharge/transferred from the intermediate care service. One patient could not be traced, there appeared to be no record of them. It is assumed that they had moved out of area. Although there had been a change in location at six months, what was interesting is why that change had occurred. None of the reasons for the change could be attributed to the patient's previous experience on the intermediate care service. The six patients who had died

could not be traced because their care records were no longer available. Seven patients had experienced deterioration in their general health, six patients had fallen and this had affected their mobility, one patient had undergone a knee operation, two patients had suffered a stroke, three patients had experienced an extension to a previous stroke and one patient had undergone a gall bladder operation.

There are many influencing factors that cannot be measured to make a robust comparison between the intervention of the intermediate care service and outcome at twenty-eight days and six months. An assumption is that the aging process and other external influences on the patient's health and well-being have influenced the outcome and putting previous strategies (actions) in place could not always predict or influence their future outcome. As discussed in chapter 2, there are many interpretations to what does and does not constitute health and well-being. Equally, there are many factors other than health that can influence an individual's quality of life.

4.2.11 Relationships between Influencing Factors

The first aim of this study was to determine what factors influence the care and outcome for individuals who were in receipt of an intermediate care intervention. To achieve this aim a number of statistical tests were undertaken. The rationale was to explore the degree of care the patient required and to identify whether there was a relationship between a number of different variables. The first relationship explored was between the length of stay on the intermediate care service and the level of care an individual required on discharge/transfer from the service. The statistical test chosen for this task was a pearson correlation coefficient. A pearson correlation is a

statistical test that allows the researcher to validate if there is a significant relationship between scores and is employed when both variables are expressed as interval data (Burns 2000). A Pearson correlation coefficient is used to measure the linear association between the two variables. The first correlation was to explore the linear association between the number of days on intermediate care and the level of services on discharge (table 4.9). This was repeated to explore for any linear association between number of days on intermediate care and the reduction in service input on discharge (table 4.10).

Correlations			
		Number of days on intermediate care	Services on Discharge
Number of days on intermediate care	Pearson Correlation	1	.109
	Sig. (2-tailed)		.304
	N	90	90
Services on Discharge	Pearson Correlation	.109	1
	Sig. (2-tailed)	.304	
	N	90	90

Table 4.9: Pearson correlation – Number of days on intermediate care and services on discharge

Correlations			
		Number of days on intermediate care	Reduction in Service Input on Discharge
Number of days on intermediate care	Pearson Correlation	1	-.198
	Sig. (2-tailed)		.062
	N	90	90
Reduction in Service Input on Discharge	Pearson Correlation	-.198	1
	Sig. (2-tailed)	.062	
	N	90	90

Table 4.10: Pearson correlation – Number of days on intermediate care and reduction in service input on discharge

The Pearson correlation did not show a strong relationship between the number of days a patient remained on the intermediate care service and the level of care they received when discharged/transferred from the service. There was not a strong relationship between the number of days a patient remained on the intermediate care

service and whether there had been a reduction in service input on discharge from the intermediate care service. To indicate a positive correlation using Pearson the closer the score is to 1, the more positive the correlation. Both correlations were weak (.109 and -.198). For significance at 2 tailed, if the p-value is less than 0.05, then the null hypothesis can be rejected. With a large sample size, very weak correlations such as 0.1 will give a p-value of less than 0.05. To conclude that the variables are clearly linearly related there would need a correlation of 0.6 or 0.7 or more. However, the p-value in table 4.9 was 0.304, showing that the correlation was not significant. The p-value in table 4.10 was 0.062, slightly closer to 0.05, but still not strongly significant. In summary there did not appear to be a strong relationship between the length of stay on the intermediate care service and the level of care a patient received on discharge/transfer from the intermediate care service. A tentative conclusion is drawn from these results. There are multiple reasons why this is the case and in isolation the relationship between length of stay and care input is weak. Patient outcome is only fully understood when all the results are collated and triangulated.

To further explore the data another Pearson correlation was undertaken. The correlation was to explore the relationship between age and any reduction in service provision on discharge/transfer from the intermediate care service and table 4.11 illustrates the results of undertaking the Pearson correlation (2 tailed).

Correlations			
		Age	Reduction in service provision
Age	Pearsons Correlation	1	.008
	Sig. (2-tailed)		.942
	N	90	90
Reduction in service provision	Pearsons Correlation	.008	1
	Sig. (2-tailed)	.942	
	N	90	90

Table 4.11: Pearson correlation – Age and reduction in service re-provision

The results demonstrate that the correlation between age and reduction in service provision on discharge/transfer from the intermediate care service is not strongly correlated. The correlation is not significant and the two variables are not linearly related. The analysis of the data showed that there was no relationship between age and reduction in service provision on discharge/transfer from the intermediate care service. Only a tentative conclusion is drawn from these results, because there are multiple reasons why this is the case and in isolation the relationship between age and a reduction in service provision weak. Patient outcome is only fully understood when all the results are collated and triangulated.

To further explore the data a pearson correlation was undertaken to explore whether there was a relationship between gender and any reduction in service provision on discharge/transfer from the intermediate care service. Table 4.12 illustrates the results of undertaking a pearson correlation (2 tailed). The results in table 4.12 demonstrate that the correlation between gender and reduction in service provision on discharge/transfer from the intermediate care service is not strongly correlated. The correlation is not significant and the two variables are not linearly related.

Correlations			
		Gender	Reduction in service provision
Gender	Pearsons Correlation	1	-.079
	Sig. (2-tailed)		.462
	N	90	90
Reduction in service provision	Pearsons Correlation	-.079	1
	Sig. (2-tailed)	.462	
	N	90	90

Table 4.12: Pearson correlation – Gender and reduction in service re-provision

Undertaking a number of pearson correlation coefficient tests in this study did not show a strong linear association between the variables explored. However, these

results are significant. The strength is only fully understood when all results are triangulated to understand their influence on the patient's journey.

It is possible to undertake a correlation that allows the researcher to look at the relationship between two variables when the effect of a third variable is held constant. The statistical test that allows the researcher to do this is called a partial correlation. A partial correlation is often used to help sort out alternative theoretical explanations for the relationship among variables (Burns 2000). The reason for incorporating a partial correlation in this study was that this statistical test allowed the researcher to explore additional variables to further explore the data for relationships between different variables. The first partial correlation undertaken was to identify whether there was a relationship between age and a reduction in re-provision of care services with a change of location at twenty-eight days held constant. Table 4.13 illustrates the results of undertaking the partial correlation. The results show that in the first correlation there is a weak relationship between the variables (.004). There is no evidence of a relationship between the reduction in service on re-provision from the intermediate care service and age after controlling for the variable change of location at twenty-eight days. The conclusion is that there are too many other uncontrollable influences that would influence this outcome.

Correlations				
Control Variables			Reduction in service input on discharge	Age
Change of location at 28 days	Reduction in service	Correlation	1.000	.004
		Significance (2-tailed)	.	.971
		df	0	87
	Age	Correlation	.004	1.000
		Significance (2-tailed)	.971	.
		df	87	0

Table 4.13: Partial correlation of change of location at twenty-eight days with age and reduction in service re-provision

The second partial correlation undertaken was to identify whether there was a relationship between age and a reduction in re-provision of care services with a change of location at six months held constant. Table 4.14 illustrates the results of undertaking the partial correlation. The results show that in the first correlation there is a weak relationship between the variables (.001). The significance element shows the probability that it did not occur by chance. In summary, there are too many uncontrollable influences that could influence the outcome.

Correlations				
Control Variables			Reduction in service input on discharge	Age
Change of location at 6 months	Reduction in service	Correlation	1.000	.001
		Significance (2-tailed)	.	.990
		df	0	87
	Age	Correlation	.001	1.000
		Significance (2-tailed)	.990	.
		df	87	0

Table 4.14: Partial correlation of change of location at six months with age and reduction in service re-provision

The third partial correlation undertaken was to identify whether there was a relationship between a change of location at twenty-eight days and six months with age held constant. Table 4.15 illustrates the results of undertaking the partial correlation.

Correlations				
Control Variables			Change of location at 28 days	Change of location at 6 months
Age	Change of location at 28 days	Correlation	1.000	.073
		Significance (2-tailed)	.	.499
		df	0	87
	Change of location at 6 months	Correlation	.073	1.000
		Significance (2-tailed)	.499	.
		df	87	0

Table 4.15: Partial correlation of age with change of location at twenty-eight days / six months

The results show that in the first correlation there is a slightly higher relationship than the previous two correlations, in fact all the values are very close to 0 (table 4.13 and table 4.14). However, this remains a weak relationship between the variables (.073). The significance element shows the probability that is did not occur by chance. In summary, there is no true relationship.

The fourth partial correlation undertaken was to identify whether there was a relationship between a change of location at twenty-eight days and six months with gender held constant. Table 4.16 illustrates the results of undertaking the partial correlation.

Correlations				
Control Variables			Change of location at 28 days	Change of location at 6 months
Gender	Change of location at 28 days	Correlation	1.000	.064
		Significance (2-tailed)	.	.552
		df	0	87
	Change of location at 6 months	Correlation	.064	1.000
		Significance (2-tailed)	.552	.
		df	87	0

Table 4.16: Partial correlation of gender with change of location at 28 days / 6 months

The results in table 4.16 show that in the first correlation there is a fairly weak relationship between the variables (.064). The significance element shows the probability that is did not occur by chance. In summary, there is no real relationship. Although a number of statistical tests have been undertaken, it is concluded that in isolation the relationship between the variables were weak. There are many factors that would influence patient outcome. No single test is effective on its own. It is only when the results are triangulated that a stronger link begins to emerge. To fully

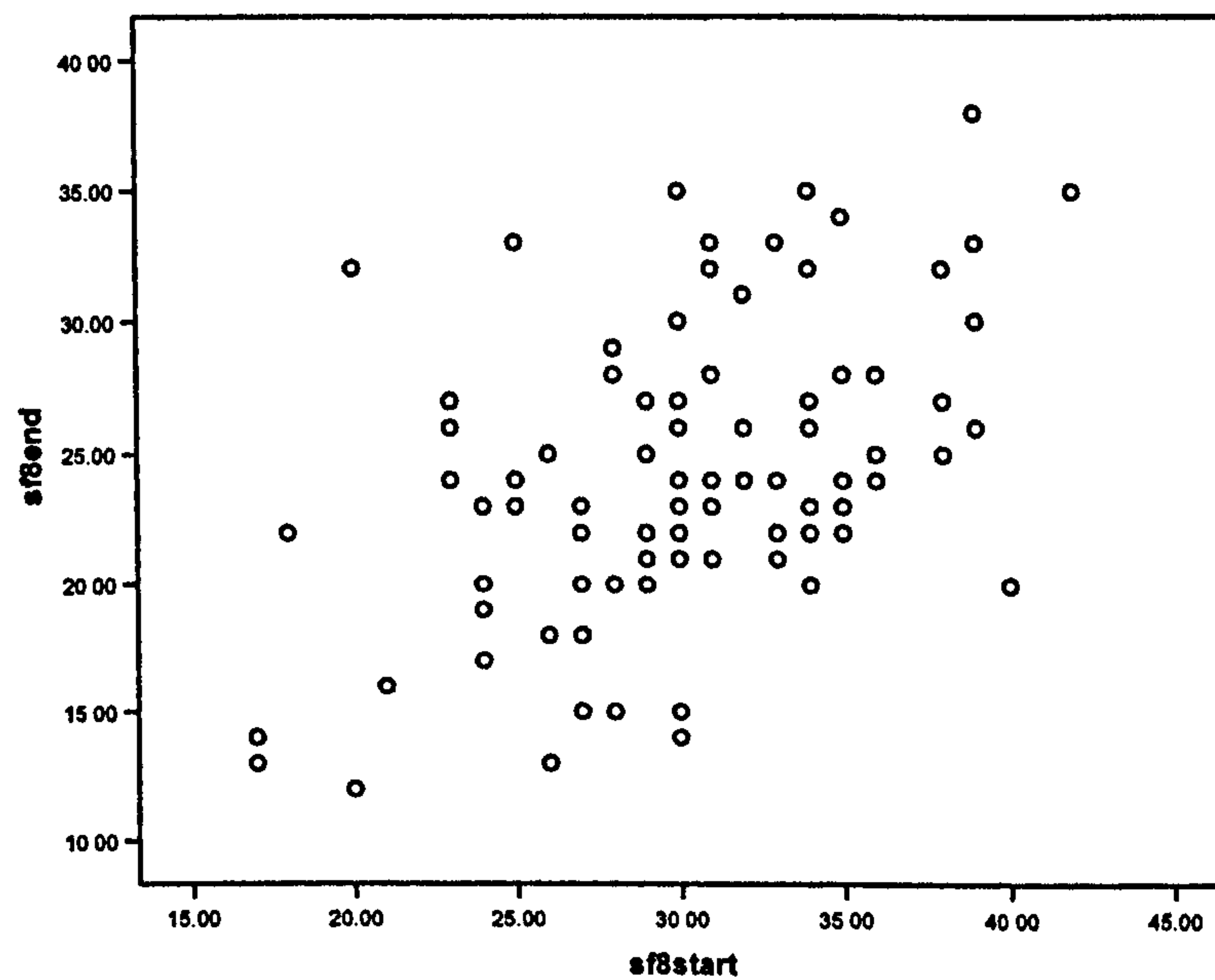
appreciate what the data are showing, the researcher needs to triangulate the results with additional statistical tests and methods of exploration.

4.3 Patient's Quality of Life

The second aim of this study was to ascertain whether there was a change in the patient's quality of life following an intermediate care intervention. The objective was to use a validated quality of life tool (SF-8) to compare perceptions of quality of life prior to accessing the intermediate care service and on discharge/transfer from the intermediate care service. This section of the chapter documents the analysis of the SF-8 patient's questionnaire. The SF-8 questionnaire incorporates eight questions and these have been analysed collectively and by individual question. The collective analysis reviews the results between the start and end score.

4.3.1 The Collective Analysis of the SF-8 Questions

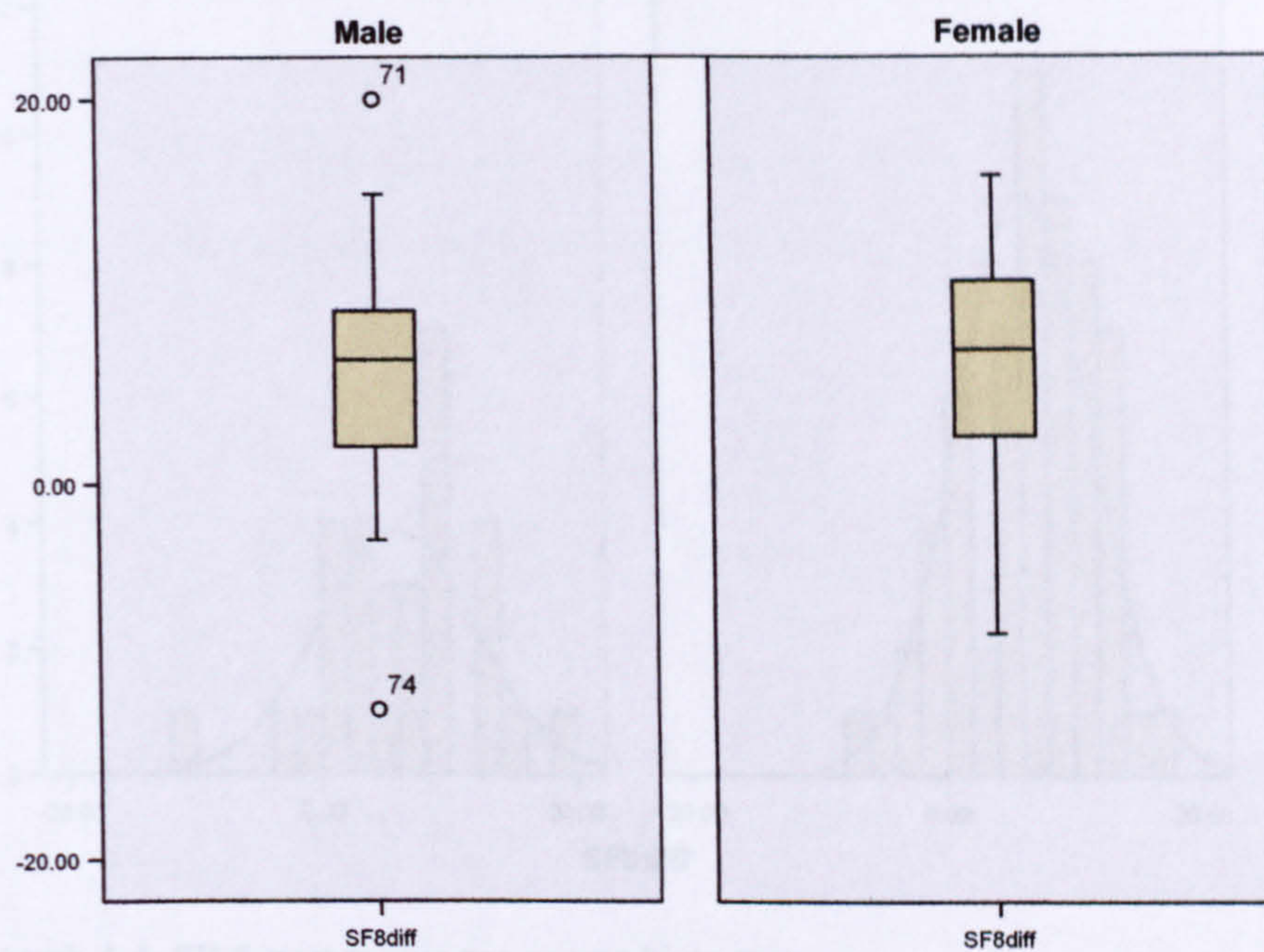
To test the relationship between the start and end score of the SF-8 questions a number of statistical tests were undertaken. The first investigation undertaken was a scatter plot graph. A scatter plot is useful to obtain a summary of a set of two variables (start and end score). It gives a good visual picture of the relationship between the two variables, and aids the interpretation of the correlation coefficient. The difference between scores is plotted but not joined. The resulting pattern indicates the type and strength of the relationship between the two variables and whether any cases are markedly different from each other. Graph 4.2 illustrated the results of undertaking a scatter plot.



Graph 4.2: Scatter-plot graph (relationship between SF-8 start and end scores)

The scatter plot in graph 4.2 demonstrates a moderate positive correlation between the two variables. The moderate positive correlation between the two variables is evident by the direction of the slope. It starts in the lower left corner and extends to the upper right corner. This shows that X and Y are positively related.

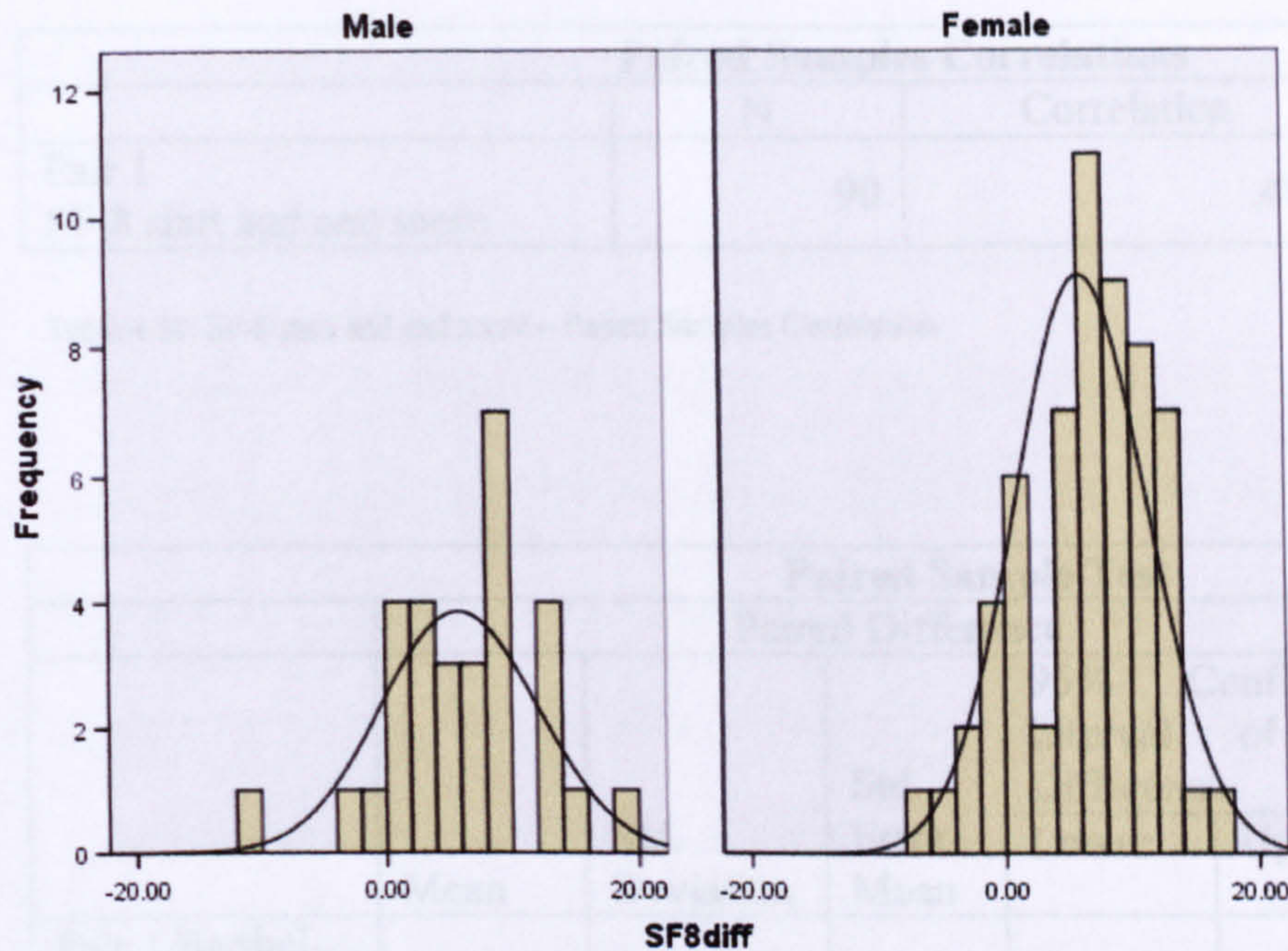
To further explore the data, a box plot was undertaken by calculating the difference between the start and end scores. A box plot is a useful way of summarising a set of data measured on an interval scale. It is often used in exploratory data analysis. The plot box consists of the most extreme values in the data set (maximum and minimum values), the lower and upper quartiles, and the median. A box plot is helpful for indicating whether a distribution is skewed and whether there are any unusual observations (outliers) in the data set. Box plots are also very useful when large numbers of observations are involved and when two or more data sets are being compared. In graph 4.3 the variable is split between genders.



Graph 4.3: SF-8 post minus pre scores box plot

The line in the two boxes represents the median value and this is similar for both male and females. The upper edge of the box indicates the 75th percentile of the data set and the lower edge indicates the 25th percentile. The minimum and maximum data values are indicated by the line end of each box. From the data displayed in graph 4.3 there appears to be two outliers for males and none for females.

The third investigation undertaken was a histogram to provide a graphical summary of the shape of the data's distribution. A histogram is a useful way of summarising data that are measured on an interval scale (either discrete or continuous). It is often used in exploratory data analysis to illustrate the major features of the distribution of the data in a convenient form. It divides up the range of possible values in a data set into groups. For each group, a rectangle is constructed with a base length equal to the range of values in that specific group, and an area proportional to the number of observations falling into that group. This means that the rectangles might be drawn of non-uniform height. The result of the histogram is illustrated in graph 4.4.



Graph 4.4: SF-8 post minus pre scores histogram

Both males and females are normally distributed and the frequency curves are symmetrical. The mean gives the central point of distribution and the standard deviation determines the spread. Both male and female have a similar deviation and mean. The difference is the shape due to variability of distribution. Males have a wider range of scores. Both have a positive change.

A t test was used to test for any significant difference between two samples which are related (SF-8 start and end score). Undertaking a t test allowed the researcher to identify whether the change between the two scores shifted significantly (better or worse). A substantial shift between the two scores would indicate that the difference between start and end score is statistical significant. The following tables display the number of cases, mean value, standard deviation, and standard error for the pair(s) of variables compared in the paired samples t test procedure (table 4.17, 4.18, 4.19).

Paired Samples T Test					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	SF-8 start score	30.1222	90	5.34817	.56375
	SF-8 end score	24.1222	90	5.60062	.59036

Table 4.17: SF-8 start and end score – Paired T Test

Paired Samples Correlations			
	N	Correlation	Sig.
Pair 1 SF-8 start and end score	90	.483	.000

Table 4.18: SF-8 start and end score – Paired Samples Correlation

Paired Sample Test								
	Paired Difference					t	df	Sig. (2 tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 Barthel- Start Score & Barthel- End Score	6.00000	5.56877	.58700	4.83364	7.16636	10.221	89	.000

Table 4.19: SF-8 start and end score – Paired Sample Tests

The paired-samples t test procedure compares the means of two variables that represent the same group at different times (SF-8 start and end score after the intermediate care service intervention). A low significance value for the t test (typically less than 0.05) indicates that there is a significant difference between the two variables – in this example the score is .000, demonstrating a significant difference. In table 4.18 the two variables should represent the same group at different times, the correlation should be fairly high (.483) and the significance value low (.000) typically less than 0.05). Therefore this further supports the decision that the score differences are significant. The confidence interval for the mean difference in table 4.19 does not contain zero, therefore this also indicates that the difference is significant. The conclusion is that the collective analysis of the SF-8 illustrates that there was a general improvement in patient’s quality of life following an intermediate care intervention.

4.3.2 The Individual Analysis of the SF-8 Questions

In section 4.3.1 a collective analysis was undertaken of the eight SF-8 questions (start and end scores). The conclusion was that there was a general improvement in patient's quality of life. To further explore the results of the analysis and to obtain a better understanding of the relationship between the start and end scores of each question a cross-tabulation was undertaken (Cross tabulation of the individual SF-8 questions see appendix XII). A cross-tabulation is a two dimensional frequency distribution table in which the frequencies of two variables are cross-tabulated (Polit & Beck 2004). A cross-tabulation was undertaken to determine the number of cases occurring when the two variables (start and end scores) are considered simultaneously. The results of a cross tabulation are presented in a table with rows and columns divided according to the values of the variables. The result of the tabulation allows the researcher at a glance so see whether there has been any change between scores. A cross-tabulation has been a valuable tool to further explore and understand the difference between scores.

Cross-tabulation of the SF-8 question one, start and end scores were undertaken. The question asked participants 'overall, how would you rate your health during the past 4 weeks'. From the results it is possible to plot the number of cases occurring when the start and end scores are considered simultaneously. There was a mixed response, with some patients improving or remaining the same or deteriorating. The majority of patients did report a positive change in this element of their quality of life.

- Two patients had prior to their crisis reported excellent health and on discharge/transfer reported good and fair health.

- Seven patients had prior to their crisis reported very good health and on discharge/transfer, one had reported good health and three had experienced a negative change and reported fair health.
- Sixteen patients had prior to their crisis reported good health and on discharge/transfer one had reported excellent health and one reported very good health (both an improvement). A total of nine patients had remained unchanged and five had deteriorated (three had reported fair and two had reported poor).
- Thirty-one patients had prior to their crisis reported fair health and on discharge/transfer one had reported excellent health, six had reported very good health and fifteen good health (twenty-two reported an improvement). A total of nine patients had remained unchanged.
- Twenty-one patients had prior to their crisis reported poor health and on discharge/transfer two had reported excellent health, five had reported very good health and thirteen reporting fair health (twenty had reported an improvement). Only one patient had remained unchanged.
- Thirteen patients had prior to their crisis reported very poor health and on discharge/transfer two had reported good health, eight had reported fair health and one reported poor health (eleven had reported an improvement). Only two patients had remained unchanged.

Cross-tabulation of the SF-8 question two, start and end scores was undertaken. The question asked participants 'during the past 4 weeks, how much did physical health problems limit your usual physical activities - walking, climbing stairs'. From the results, it is possible to plot the number of cases occurring when the start and end scores are considered simultaneously. There was a mixed response, with some patients improving or remaining the same or deteriorating. The majority of patients did report a positive change in this element of their quality of life.

- Initially sixteen patients had reported that their physical health problems had limited their usual physical activities somewhat. On leaving the service there was an equal split between a positive and negative change. Six patients had remained the same. Five patients had improved and five patients had a slight deterioration.
- Initially thirty-one patients had reported that their physical health problems had limited their usual physical activities to a point where they could not do any physical activities. On leaving the service the majority had changed. Seven patients had remained the same and twenty-four patients had reported an improvement.
- Initially thirty-seven patients had reported that their physical health problems had limited their usual physical activities to a point where it was limited a lot. On leaving the service the majority had changed. Nine patients had remained the same and twenty-eight patients had reported an improvement.
- Initially one patient reported that their physical health was not affected, but on leaving the service reported the opposite. When this individual records were checked against their Barthel, it was concluded that the participant might have miss interrupted the question and documented an incorrect answer.

Cross-tabulation of the SF-8 question three, start and end scores was undertaken. The question asked participants ‘during the past 4 weeks how much difficulty did you have doing your daily work, both inside and outside the home, because of your physical health’ (initially prior to crisis and at the end of the intermediate care service). From the results it is possible to plot the number of cases occurring when the start and end scores are considered simultaneously. There was a mixed response, with some patients improving or remaining the same or deteriorating. The majority of patients did report a positive change in this element of their quality of life.

- Initially six patients reported a little difficulty. On leaving the service three patients had remained the same, one had improved and two deteriorated.
- Initially eleven patients reported having some difficulty. On leaving the service two patients had remained the same, six had improved and three deteriorated.
- Initially twenty-six patients reported having quite a lot of difficulty. On leaving the service four patients had remained the same, nineteen had improved and three deteriorated.
- Initially forty-seven patients reported they could not do daily work. On leaving the service twelve patients had remained the same and thirty-five had improved.

Cross-tabulation of the SF-8 question four, start and end scores was undertaken. The question asked participants ‘how much bodily pain have you had during the past 4 weeks’. From the results it is possible to plot the number of cases occurring when the start and end scores are considered simultaneously. There was a mixed response, with some patients improving or remaining the same or deteriorating. The majority of patients did report a positive change in this element of their quality of life.

- Initially six patients had reported no pain. On leaving the service one patient reported severe pain and the remaining four patients remained unchanged.
- Initially five patients had reported very mild pain. On leaving the service one patient reported an improvement. One patient had reported some deterioration and three remained unchanged.
- Initially eleven patients had reported mild pain. On leaving the service four patients reported an improvement. Two patients had reported some deterioration and five patients remained unchanged.

- Initially twenty-seven patients had reported moderate pain. On leaving the service sixteen patients reported an improvement. One patient had reported some deterioration and ten patients remained unchanged.
- Initially thirty-one patients had reported severe pain. On leaving the service twenty-five patients reported an improvement. Three patients had reported some deterioration and three patients remained unchanged.
- Initially ten patients had reported very severe pain and all ten patients reported an improvement.

Cross-tabulation of the SF-8 question five, start and end scores was undertaken. The question asked participants 'during the past 4 weeks, how much energy did you have'. From the results it is possible to plot the number of cases occurring when the start and end scores are considered simultaneously. From the results it is possible to plot the number of cases occurring when the two variables are considered simultaneously (pre and post scores). There was a mixed response, with some patients improving or remaining the same or deteriorating. The majority of patients did report a positive change in this element of their quality of life.

- One patient reported that their lack of energy affected them very much and this did not change on leaving the service.
- Initially seven patients reported that their level of energy affected them quite a lot. On leaving the service, three remained the same and four had improved.
- Initially twenty-six patients reported that their level of energy affected them some. On leaving the service, fourteen remained the same, seven had deteriorated and five had improved.
- Initially forty-one patients reported that their level of energy affected them some. On leaving the service, twelve remained the same, twenty-six had deteriorated and three had improved.

- Initially fifteen patients reported that their level of energy was not affected. On leaving the service, one remained the same and fourteen had deteriorated

Cross-tabulation of the SF-8 question six, start and end scores was undertaken. The question asked participants ‘during the past 4 weeks, how much did your physical health or emotional problems limit your usual social activities with family or friends’. From the results it is possible to plot the number of cases occurring when the start and end scores are considered simultaneously. There was a mixed response, with some patients improving or remaining the same or deteriorating. The majority of patients did report a positive change in this element of their quality of life.

- Three patients had stated initially that their physical health and emotional health had affected their social activities. On leaving the service one patient remained the same and two patients had deteriorated.
- Eight patients had stated initially that their physical health and emotional health had affected their social activities. On leaving the service four patients remained the same, one patient had deteriorated and three patients had improved.
- Nineteen patients had stated initially that their physical health and emotional health had affected their social activities. On leaving the service six patients remained the same, four patients had deteriorated and nine patients had improved.
- Twenty-seven patients had stated initially that their physical health and emotional health had affected their social activities. On leaving the service eight patients remained the same, one patient had deteriorated and eighteen patients had improved.

- Thirty-three patients had stated initially that their physical health and emotional health had affected their social activities. On leaving the service five patients remained the same and twenty-eight patients had improved.

Question six is confusing. It asks the patients to rate two separate things with one score. There is a vast difference between physical and emotional health. A tentative assumption drawn from the data is that patients are more likely to score their physical health than their emotional health. The patients in this study appeared to have difficulty discussing their emotional health openly. In conclusion, there are too many external influences to consider the outcome of this question in isolation. There was no consistency in their responses, even with the majority reporting an improvement.

Cross-tabulation of the SF-8 question seven, start and end scores was undertaken. The question asked participants 'during the past 4 weeks, how much have you been bothered by emotional problems -such as feeling anxious, depressed or irritable'. From the results it is possible to plot the number of cases occurring when the start and end scores are considered simultaneously. There was a mixed response, with some patients improving or remaining the same or deteriorating. The majority of patients did report a positive change in this element of their quality of life.

- Initially seventeen patients had reported a slight problem. On leaving the service ten patients stated that there was no change, two patients had deteriorated and five patients had improved.
- Initially twenty patients had reported no problems. On leaving the service only one patient had stated that this had changed.

- Initially twenty-two patients had reported a moderate problem. On leaving the service seven patients stated that there was no change, three patients had deteriorated and twelve patients had improved.
- Initially twenty-three patients had reported that it had affected them quite a lot. On leaving the service four patients stated that there was no change, one patient had deteriorated and eighteen patients had improved.
- Initially eight patients had reported an extreme problem. On leaving the service one patient stated that there was no change and seven patients had improved.

Cross-tabulation of the SF-8 question eight, start and end scores was undertaken. The question asked participants 'during the past 4 weeks, how much did personal or emotional problems keep you from doing your usual work, studies, or other daily activities'. From the results it is possible to plot the number of cases occurring when the two variables are considered simultaneously (start and end scores).

Question eight asked the patient two separate things - how much they were bothered by personal and emotional problems. A similar concern as raised in question six, this question was also asking two things, but with only one answer. However, from the results it is possible to plot the number of cases occurring when the start and end scores are considered simultaneously. There was a mixed response, with some patients improving or remaining the same or deteriorating. The majority of patients do report a positive change in this element of their quality of life.

- Initially fourteen patients reported that their physical and emotional problems did not bother them. On leaving the service eight remained the same and six reported deterioration.

- Initially fifteen patients reported that their physical and emotional problems had affected them very little. On leaving the service four remained the same, two reported deterioration and nine patients had reported an improvement.
- Initially nineteen patients reported that their physical and emotional problems had affected them somewhat. On leaving the service three remained the same, four reported deterioration and twelve patients had reported an improvement.
- Initially twenty-two patients reported that their physical and emotional problems had affected them quite a lot. On leaving the service five remained the same and seventeen patients had reported an improvement.
- Initially twenty patients reported that their physical and emotional problems had affected them quite a lot. On leaving the service two remained the same and eighteen patients had reported an improvement.

Question eight is confusing, because it is asking the patients to rate two separate things with one score. The patient might not see that personal problems and emotional problems are related. In the interruption there can be a difference between personal and emotional problems. A tentative assumption drawn is that patients are more likely to score their personal problems than their emotional problems. The responses were varied, although the majority did report an improvement.

Undertaking a cross-tabulation of each of the eight SF-8 questions has assisted the researcher to identify the weaknesses of individual questions within this questionnaire. Although the overall conclusion is that the analysis of the SF-8 questions demonstrates that there is a general improvement in patient's quality of life. The researcher feels that the language used in some of the questions might have affected the robustness of the tool and patients might have answered differently or

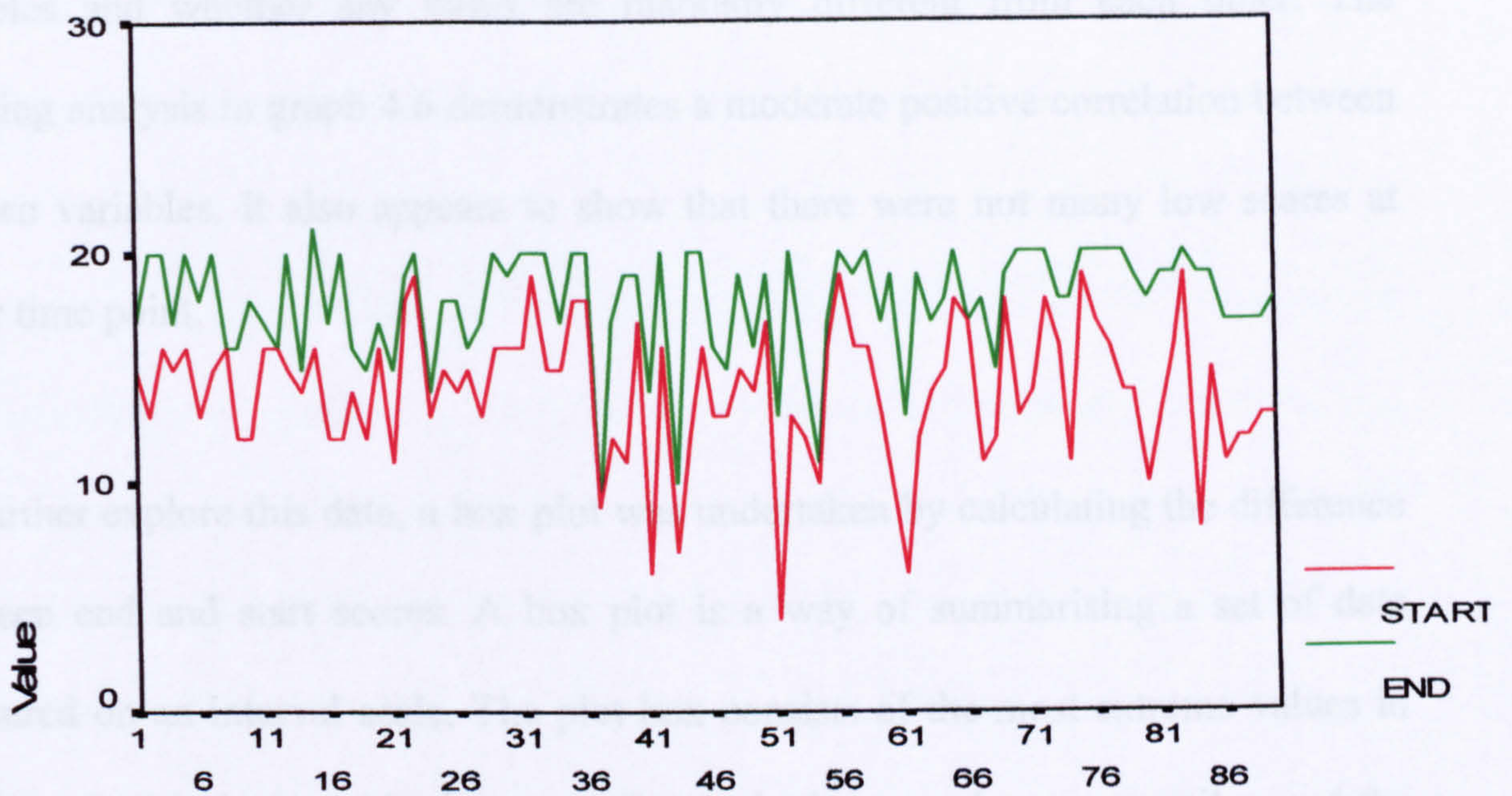
more honestly to some of the questions. There are weaknesses to the tool. The main weakness of the tool is to ask the patient two separate things within one question.

4.4 Patient Functional Ability

The third aim of this study was to determine whether there was a change in patient's functional ability following an intermediate care intervention. The objective was to measure any change in functional ability by using a validated functional ability tool to compare functional ability prior to admission and on discharge/transfer from the service (start and end score). This section of the study documents the analysis of the patient's functional ability and describes the results of the Barthel. A number of statistical tests were undertaken to test the relationship between the start and end score of the Barthel.

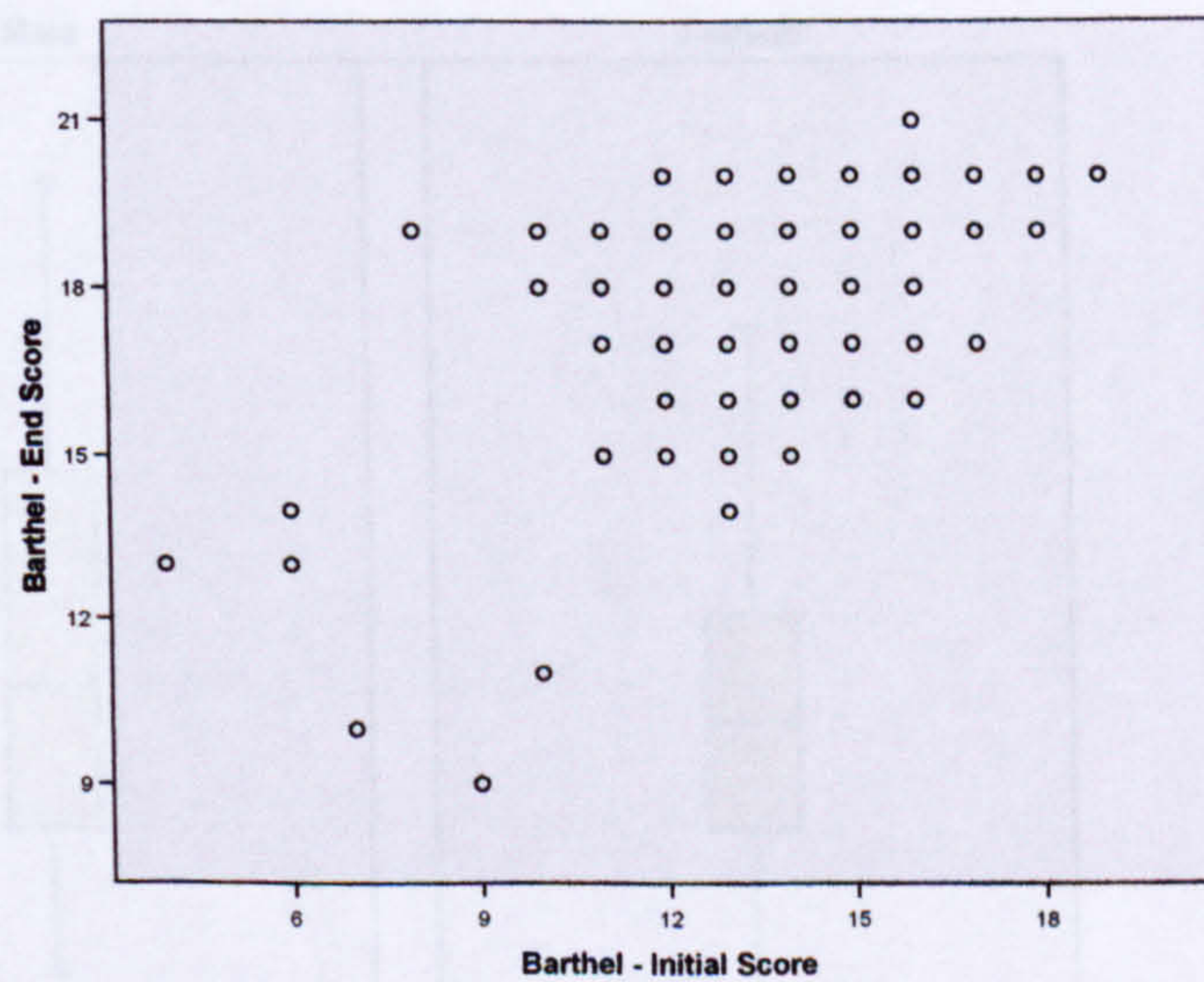
4.4.1 The Collective Analysis of the Barthel Questions

The first step was to analyse the data produced from using the Barthel. This involved collating the start and end scores for all patients participating in this study. The collated scores are illustrated in graph 4.5. The graph visually shows that there is a significant positive shift between the patient's start and end scores. This significant shift is demonstrated by the gap between the two coloured lines in graph 4.5. The red line illustrates the patients start score and the green line illustrates the patients end score.



Graph 4.5: Barthel Index start and end scores

The second statistical test involved undertaken a scatter plot graph (graph 4.6).

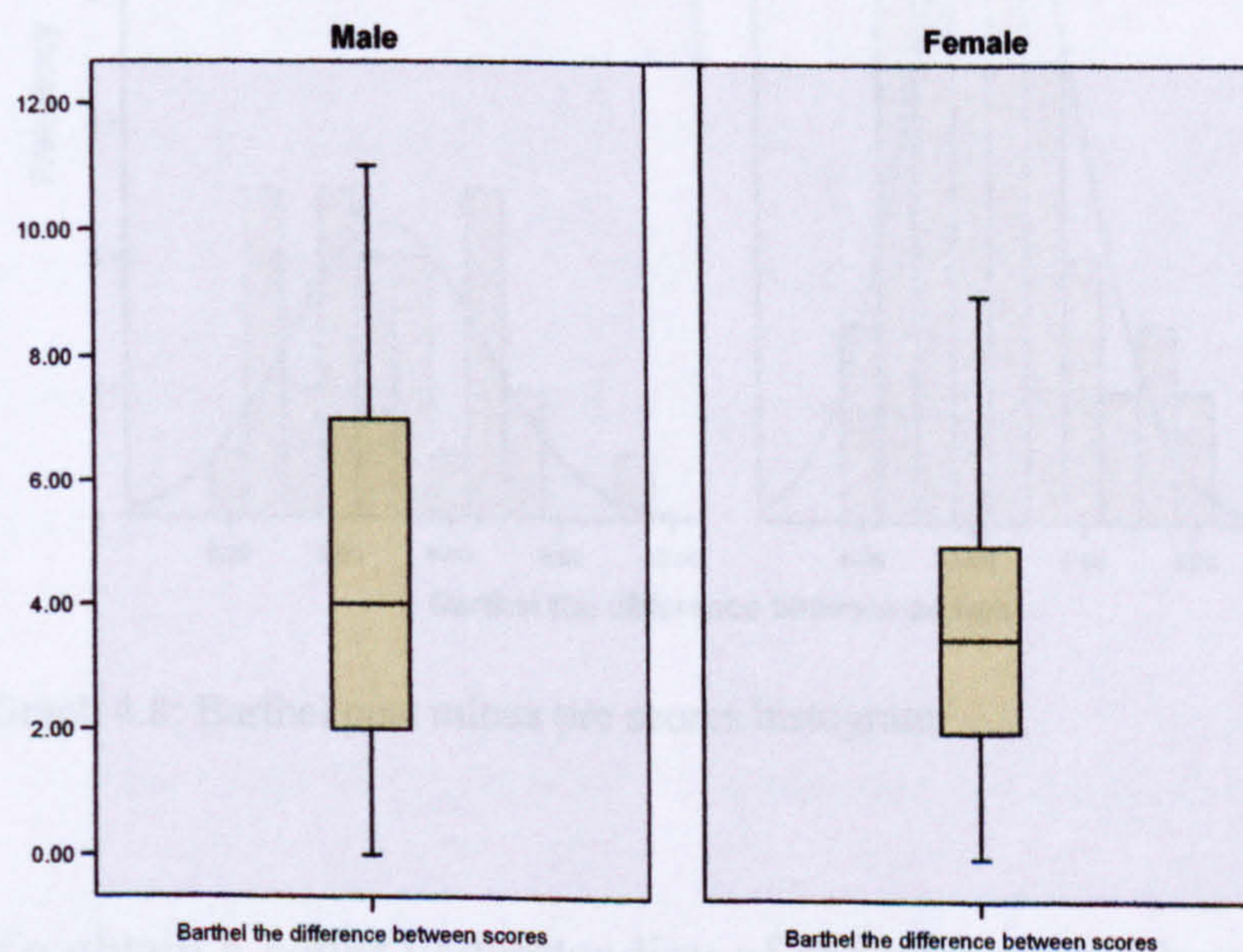


Graph 4.6: Scatter-plot graph (relationship between Barthel start and end scores)

A scatter plot is useful to obtain a summary of a set of two scores from a single variable (start and end score of the Barthel). It gives a good visual picture of the relationship between the two sets of scores, and aids the interpretation of the correlation coefficient. The difference between scores is plotted but not joined. The resulting pattern indicates the type and strength of the relationship between the two

variables and whether any cases are markedly different from each other. The resulting analysis in graph 4.6 demonstrates a moderate positive correlation between the two variables. It also appears to show that there were not many low scores at either time point.

To further explore this data, a box plot was undertaken by calculating the difference between end and start scores. A box plot is a way of summarising a set of data measured on an interval scale. The plot box consists of the most extreme values in the data set (maximum and minimum values), the lower and upper quartiles, and the median. A box plot is helpful for indicating whether a distribution is skewed and whether there are any unusual observations (outliers) in the data set. The results of undertaking a box plot for the Barthel are illustrated in graph 4.7.

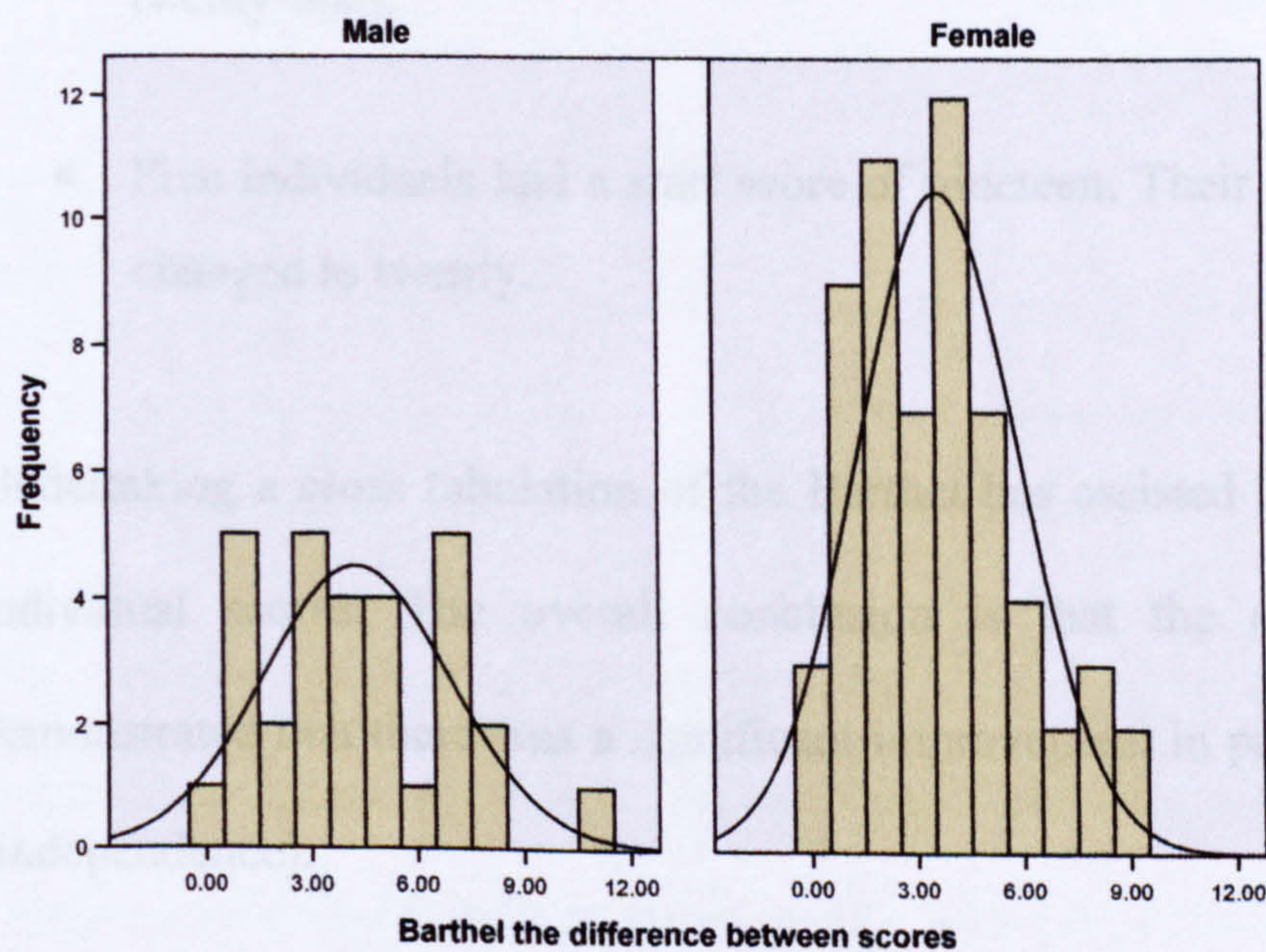


Graph 4.7: Barthel post minus pre scores box plot

In graph 4.7 the variable is split between sexes. The line in the two boxes represents the median value and this is similar for both male and females. The upper edge of the box indicates the 75th percentile of the data set and the lower edge indicates the 25th

percentile. The minimum and maximum data values are indicated by the line end of each box. From the data displayed in graph 4.7 there appears to be no outliers.

A histogram was undertaken to provide a graphical summary of the shape of the data's distribution (graph 4.8). Both males and females are normally distributed and the frequency curves are symmetrical. The mean gives the central point of distribution and the standard deviation determines the spread. Both male and female have a similar deviation and mean. The difference is the shape due to variability of distribution. Males have a wider range of scores. Both have a positive change.



Graph 4.8: Barthel post minus pre scores histogram

To obtain a better understanding of the relationship between the start and end scores of the Barthel a cross-tabulation was undertaken (appendix XIII). A cross-tabulation was undertaken to determine the number of cases occurring when the start and end score are considered simultaneously. Undertaking a cross-tabulation of the Barthel scores has been extremely useful to review these two variables more effectively. The results of a cross tabulation are presented in a table with rows and columns divided

according to the values of the variables and from the table it is possible to see a significant positive change for the majority of patients.

- Twelve individuals had a start score of twelve. Their end score improved and ranged between fifteen and twenty.
- One individual had a start score of four and had an end score on leaving the service of thirteen.
- Eighteen individuals had a start score of sixteen. Two patients remained at sixteen, but the majority (fourteen patients) had an end score above their initial, thus showing an improvement (ranging between seventeen and twenty-one).
- Five individuals had a start score of nineteen. Their end score improved and changed to twenty.

Undertaking a cross tabulation of the Barthel has assisted in the exploration of the individual scores. The overall conclusion is that the analysis of the Barthel demonstrated that there was a significant improvement in patient's functional ability (independence).

A paired t test of the Barthel start and end scores was used to test for any significant difference between two samples which are related. Undertaking a t test allowed the researcher to identify whether the change between the two scores shifted significantly (better or worse). A substantial shift between the two scores would indicate that the difference between start and end score is statistical significant. The following tables display the number of cases, mean value, standard deviation, and standard error for the pair(s) of variables compared in the paired samples t test procedure (table 4.20, 4.21, 4.22).

Paired Samples T Test				
	Mean	N	Std. Deviation	Std. Error Mean
Pair Barthel- Start Score	14.01	90	3.056	.322
1 Barthel- End Score	17.82	90	2.387	.252

Table 4.20: Barthel start and end score – Paired T Test

Paired Samples Correlations			
	N	Correlation	Sig.
Pair 1 Barthel- Start Score & Barthel- End Score	90	.627	.000

Table 4.21: Barthel start and end score – Paired Samples Correlation

Paired Sample Test								
	Paired Difference					t	df	Sig. (2 tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 Barthel- Start Score & Barthel- End Score	-3.811	2.426	2.426	-4.319	-3.303	-14.904	89	.000

Table 4.22: Barthel start and end score – Paired Sample Tests

The paired-samples t test procedure compares the means of two variables that represent the same group at different times (Barthel start and end scores). A low significance value for the t test (typically less than 0.05) indicates that there is a significant difference between the two variables – in this example the score is .000, demonstrating a significant difference. In table 4.21 the two variables should represent the same group at different times, the correlation should be fairly high (.627) and the significance value low (.000) typically less than 0.05). Therefore, this further supports the decision that the score differences are significant. The confidence interval for the mean difference in table 4.22 does not contain zero, therefore this also indicates that the difference is significant.

The collective analyses showed a significant positive shift between the patient's start and end scores. There was a moderate positive correlation between the patient's start and end scores. The distribution between scores was not skewed and there were no unusual observations (outliers) between scores. The scores were both normally distributed between male and females patients and both had a similar deviation and mean. The conclusion is that there had been a significant positive change for the vast majority of patient's functional ability on discharge/transfer from the intermediate care service. There is a strong relationship between the two variables (start and end scores). There is strong evidence that patients functional ability had improved.

4.5 Experience of Patients and Carers

The fourth aim of this study was to investigate the experiences of patients and carers. The objective was to obtain a better understanding of their prior experience, including the influence of the intermediate care service and future aspirations. To achieve this, three separate data collection methods were implemented. A patient discharge/transfer questionnaire for all patients on leaving the intermediate care service, a number of semi-structured patient interviews (N =35) and a number of semi-structured carer interviews (N =5).

4.5.1 Discharge/transfer Questionnaire

To obtain a better understanding of the patient's experience while in receipt of the intermediate care service, a discharge/transfer questionnaire was distributed to all patients on leaving the service. Ninety questionnaires were distributed and fifty-two were returned (57.8%). The discharge questionnaire was designed to be given to the patient by hand on the last day of service input. The intention was that the last person

visiting the patient would give them a copy of the questionnaire and a covering letter by hand to reinforce their verbal explanation. It was noted on return of some of the data collection forms that a number of questionnaires had not been given out (a total of twenty questionnaires). To rectify this inconsistency in the data collection process the study's discharge/transfer questionnaires were forwarded to the patients in the post with an explanation letter and a return stamped address envelope. One of the postal questionnaires was then returned with a covering note:

"I was given one of these questionnaires a while ago and I completed it and sent it back about six weeks ago. My comments remain the same as they were in the questionnaire that I completed: I have had a very positive experience of intermediate care. I do not wish to fill another questionnaire in, simply because I have done it once and I don't have the time to do it again".

Identification code 22

On further investigation it was found that twenty patients had been given the wrong questionnaire. A questionnaire used in a previous quality assurance exercise by the intermediate care service was given by mistake. When relying on others to support a study, there is always the possibility of mistakes occurring. To reduce the risk of a mistake like this, the researcher had given to the intermediate care staff a patient pack for each patient participating in this study. The pack contained all the necessary information, data collection documentation forms (including a copy of the patient discharge/transfer questionnaire), letters etc. The patient pack was designed to prevent this type of dilemma occurring. It is difficult to fully understand why this happened, possibly due to the work pressures of the intermediate care staff. This type of mistake had not been anticipated with the safe guards put in place by the researcher. It was possible to trace eleven of the incorrect discharge/transfer questionnaires. It was decided not to include them in this study's analysis. There

were inconsistencies between the two questionnaires and it was assumed that this could have influenced the accuracy of the data analysis. There would have been inconsistency, because not all patients would have been asked the same questions. If the eleven rejected discharge/transfer questionnaires had been included in the study's analysis, it would have resulted in a 70% questionnaire return rate. A 70% questionnaire return rate would have been a really good response for any study. However, there was one comment on one of the questionnaires that was rejected that was relevant.

"If I could not have had intermediate care I would have had to stay in hospital".

Identification code 19

The discharge/transfer questionnaire distributed in this study had a mixture of open and closed questions. This allowed quick 'yes or no' questions to be incorporated in the questionnaire for straight forward questioning. For example, the first question asked the patients if they had received written information about the intermediate care service. There are only two possible answers to this question, either a yes or no reply. Space was also provided to allow patients to comment freely on different aspects of the intermediate care service. The discharge/transfer questionnaire contained eight questions. The questions were designed to ask the patient about communication (between them and the intermediate care staff), their experience (including what was important to them) and whether they had a need to complain. The final question allowed the patient to provide free text about any other comment they might like to make. Table 4.23 illustrates the collated results from the fifty-two questionnaires returned.

Question		Response	
		Yes	No
1	Did you receive written information about the Intermediate Care Service?	42	10
2	Were you consulted about the level of support you would receive?	48	4
3	Were you kept informed of what was happening throughout your stay on intermediate care?	49	3
4	Did the staff take notice of what was important to you?	52	0
5	What did you like about the intermediate care service you received?	Written response	
6	Is there anything we could do to improve our service?	Written response	
7	Did you have cause to complain?	1	51
8	Any other comments would be truly appreciated	Written response	

Table 4.23: Discharge/transfer questionnaire collated results.

From the collective responses of the patient discharge/transfer questionnaire it is possible to draw a number of themes. The themes are drawn from the responses of each question and are illustrated in table 4.24.

Question		Key Themes
1	Did you receive written information about the Intermediate Care Service?	Easy to understand Useful / helpful
2	Were you consulted about the level of support you would receive?	Had choice, kept in the picture, everything explained – through meetings, discussions and consulted.
3	Were you kept informed of what was happening throughout your stay on intermediate care?	Majority kept informed
4	Did the staff take notice of what was important to you?	Staff took notice
5	What did you like about the intermediate care service you received?	Continuity of care
6	Is there anything we could do to improve our service?	Increase in resources; do not discharge people after 6 weeks.
7	Did you have cause to complain?	No cause for complaint
8	Any other comments would be truly appreciated	Felt listen to, kept informed and did not want to leave the service

Table 4.24: Discharge/transfer questionnaire themes

The feeling of involvement and being listened too were very important to patients. Individuals wanted to be involved in decisions about their care and future aspirations, they wanted choices, continuity of care, to be treated with respect and they did not want to leave the service. Being treated with respect was very important to patients. They wanted the intermediate care staff to listen to them and to have their own opinions taken into consideration.

“They asked me for my opinions and questions and how I felt about what they were doing”

Identification code 57

“They took time to listen to me and appreciated how I felt about staying as independent as possible”.

Identification code 11

“Two way conversations, always asked my views”

Identification code 45

Communication, including written and verbal were significant issues for participants in this study. Individuals wanted access to information and they wanted to be kept informed. Patients felt that two-way communication was important. They wanted the intermediate care staff to listen to them and to allow them to discuss issues with them. This would allow them to take some control over what was happening to them during this difficult time. To support these statements, here are some examples from the written responses:

“They actually listened to what I was saying to them and took things on board. I knew this to be the case because they appeared to pass information on to each other that reinforced completely my needs and wishes”

Identification code 66

“Talked to me and found out what I wanted”

Identification code 1

“The staff listened very carefully to our worries and we felt very reassured by them”

Identification code 14

“Kept fully in the picture....they discussed everything fully with me”

Identification code 18

“Was able to do things for myself from the start which I wanted to, to get back in a routine”

Identification code 25

“I would have become very depressed – living alone – old – and rather helpless, but they were all wonderful”

Identification code 44

“Felt like royalty, family knew when I had been visited”

Identification code 2

“Everything that was discussed was acted upon very quickly, with as little fuss as possible and nothing was too much trouble”

Identification code 62

The feeling of involvement appears to be very important to individuals. The reassurance that there was continuity of care appears to be crucial in how individuals perceive the care they or their family received. Government policy has driven this change in care delivery as discussed in chapter one (DoH 2000, DoH 2001a, DoH 2006). People were once automatically cared for in hospital. Hospitals now

discharging people earlier (DoH 200a). This change in government policy has made individuals feel very vulnerable.

“I am very grateful for the intermediate care. At first I was extremely shy but they all put me at my ease”.

Identification code 18

“When you suddenly become disabled it’s nice to know there are caring people you can talk to and get answers to some of the many concerns you have at the time”.

Identification code 44

Many families do not live close. People will travel long distances to places of work and this decreases their availability to help relatives in crisis. This change in the family structure has not helped the vulnerability of patients. To support this statement, a patient’s son completed one of the returned questionnaires for his father and made the following statement:

“My Father, my wife and I were surprised by the amount of care provided, by the speed and efficiency of the system and the undoubted caring nature of the staff encountered”.

Identification code 30

This particular person had experience of previous care services. He had on a previous occasion encountered inefficiency and inconsistency in the care received. The support from the intermediate care service was not what he had expected. He had not expected such a positive outcome.

The feeling of vulnerability at a time of crisis was very evident in the questionnaire returns. People were worried about how they would manage and the future did look rather bleak to some. The support mechanisms put in place by the intermediate care team eliminated some of the concerns and fears. The support mechanisms were important to support individuals in their recovery.

“I would have become very depressed – living alone – old and rather helpless, but they were all wonderful to me”

Identification code 8

“They realised that I was nervous, but knew that I wanted to get going”

Identification code 40

Some of the recipients in this study did not want the intermediate care service to finish, they felt safe and secure in the care of the intermediate care team. This feeling of security was important to individuals.

“At this time in my life I feel very vulnerable and everyone I dealt with helped in every way possible – any equipment recommended arrived either on the same day or the following day. On occasions, equipment was changed as it was considered improvement could be made. My only complaint is I do not wish to be taken from under your umbrella”.

Identification code 54

“My last carers were nothing like yours, do I have to leave”.

Identification code 79

“Does this have to finish now, can't I stay, I have nothing but praise for xxx- and the team”.

Identification code 3

From all the discharge/transfer questionnaire collated there was one recorded complaint response. The reason to complain was not due to the intermediate care service. The complaint was caused by an external agency. One respondent had reported that they had not had a second banister fitted by the Local Authority occupational therapy service, a referral activated while they were still in an acute hospital before being discharged.

There were comments and concerns raised about the future and re-provision of care services once the intermediate care service had finished. Patients had documented a general fear for the future and some of the respondents were worried in how they would manage in the future.

“I had been trying to get help for two years, and finally got super help and support I needed from xxx ---- what does the future hold?”

Identification code 15

“Hope the private care is as good?”

Identification code 7

“This is the second time with xxx, good to know they’re there when you need them”

Identification code 13

However, individuals were grateful for the care and attention they received from the intermediate care service. There were many examples of patients expressing their gratitude to the intermediate care staff.

“All I can say is thank you for all the care and attention I have received since leaving hospital. Everyone who came to see me was most grateful and attentive. I am

most grateful for all the care and help given to me. I have never been so well looked after”.

Identification code 68

“Your services have been a tremendous help, not only to myself in the uncertainty and vulnerable early weeks of recovery from a serious illness, but also to my wife who has spinal trouble and has the added responsibility of caring for me. The support has been invaluable to her in our difficult circumstances”.

Identification code 62

Question five in the discharge/transfer questionnaire asked the patients what they liked about the service. There were only positive responses. Patients wanted to be involved, kept informed and to be treated with respect. Patient number 66 summarises the responses and wrote:

“The individuals involved were very empathetic and that they responded quickly. I also liked the fact that you were treated like a sentient being as opposed to just a lump of malfunctioning limbs. People were very respectful and efficient and seemed to respond to you on an individual basis not lump you into a category”.

Identification code 66

Being part of the decision making processes seems extremely important to patients and being treated with respect and dignity equally important. The discharge/transfer questionnaire had yielded a great deal of information. In the planning stages of this study the researcher had not anticipated how rich this data source would become. To summarise all the discharge/transfer questionnaire responses, it is possible to collate all the responses into three key themed group headings as illustrated in figure 4.1. The three theme categories were personal expectations, issues relating to the service and general comments. Patients clearly had expectations of the intermediate care service and these included being treated with respect and being listened to. There

were clearly issues relating to the quality and level of input received from the intermediate care staff and not wanting the service to stop.

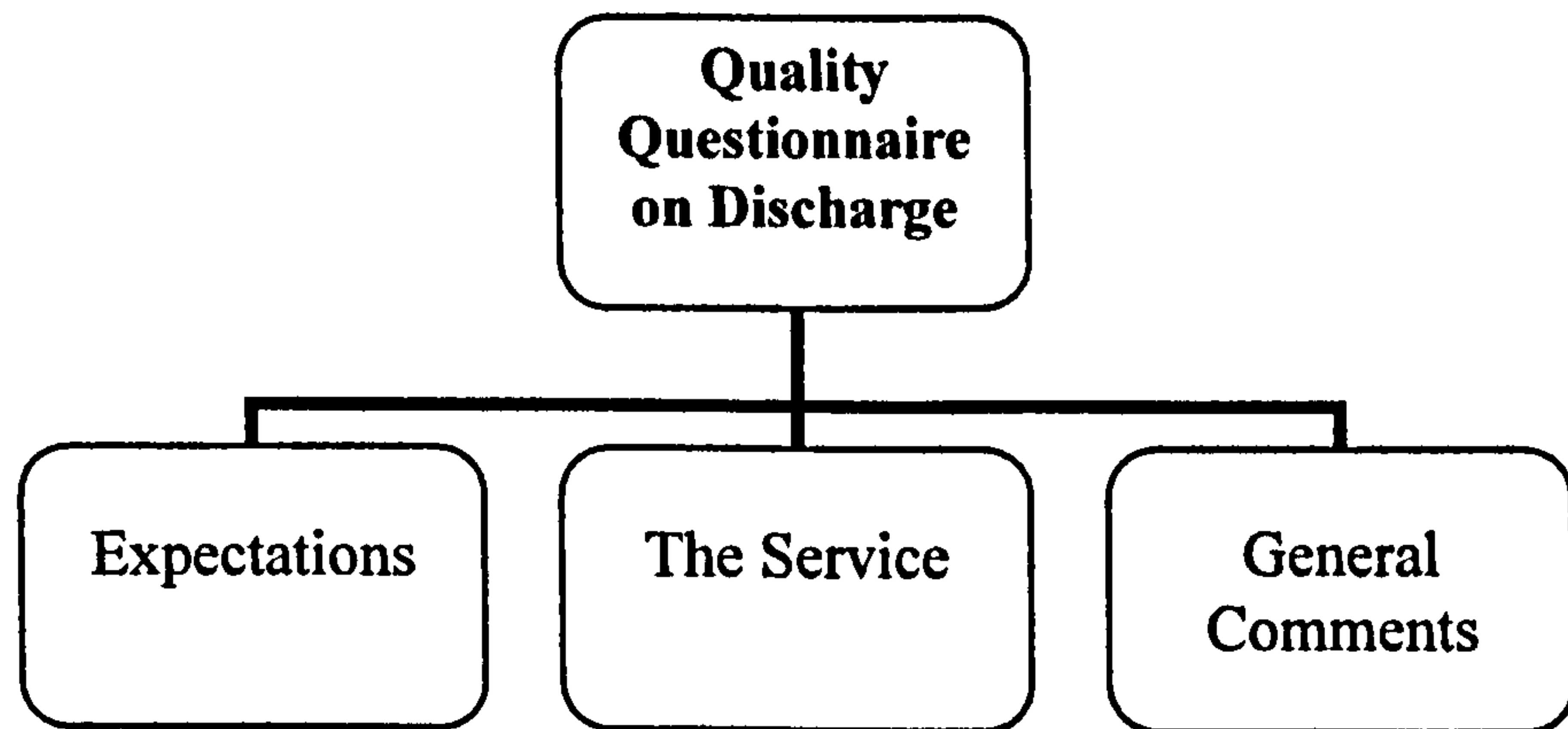


Figure 4.1: Key themes from discharge questionnaire

Beneath each theme as illustrated in figure 4.1, there are a number of sub categories that feed into the themes and these are shown in figure 4.2.

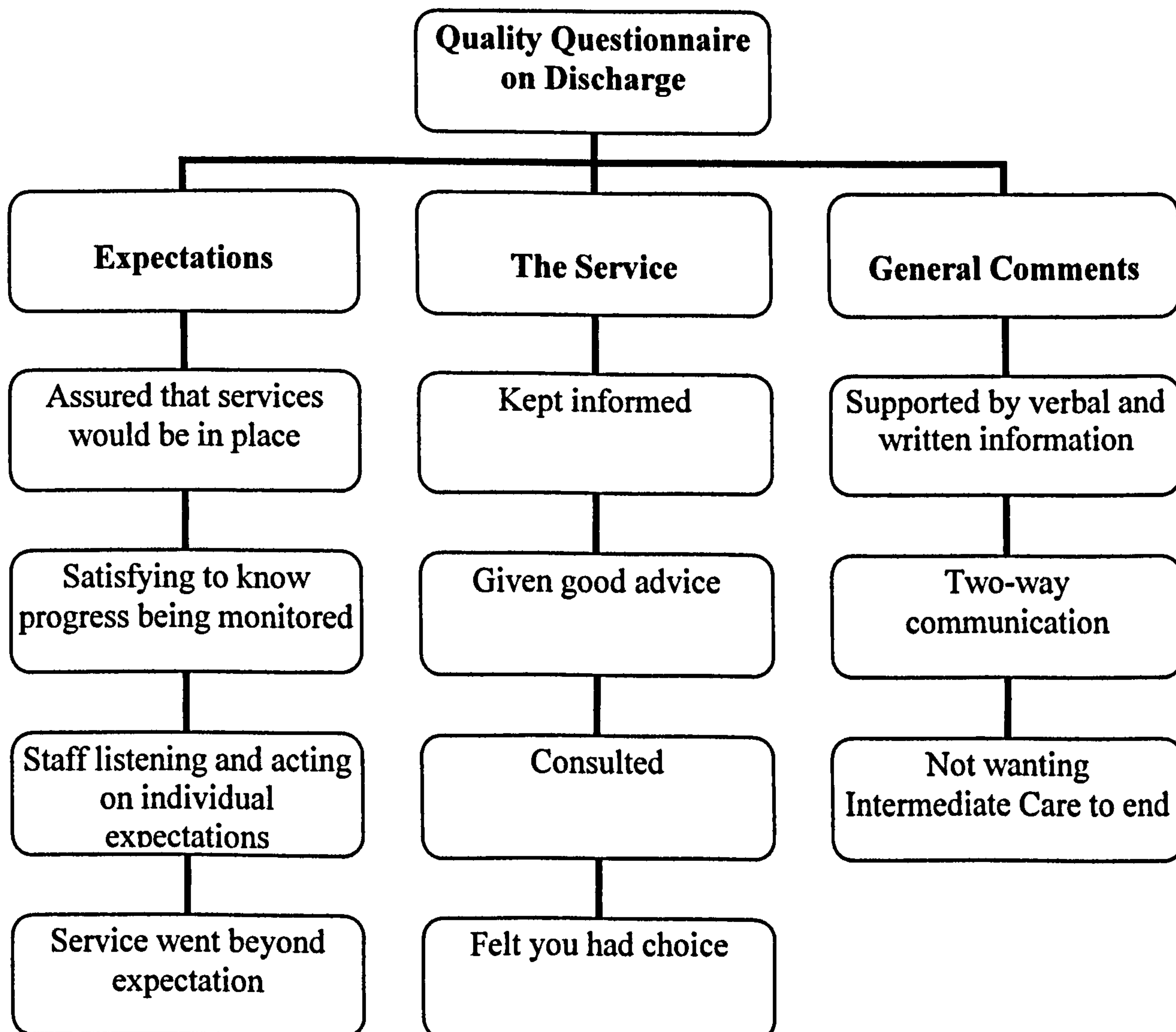


Figure 4.2: Key themes and supporting categories from discharge questionnaire

Expectations - patients and carers were reassured that services would be in place. This reassurance resulted in continuity of care and no delays in the patient's rehabilitation. Feedback was extremely important to individuals. They wanted to know what was happening and what progress they were making. Patient involvement allowed a level of control over what was happening with their lives. A level of control for the patients was important, this control mechanism was assisted by the intermediate care staff listening and acting upon what patients were saying to them. There was clear evidence that patients experience was beyond what they expected from the service.

The Service - the intermediate care service was robustly coordinated and the sharing of information apparent. Staff kept both patients and carers aware of progress and what was happening with the patient's rehabilitation goals and outcomes. Patients felt that the intermediate care staff consulted with them and offered them choices and a level of power over their own lives.

Comments - there were a number of general comments collated under this heading. The information and advice offered by the intermediate care staff was always supported with verbal and/or written information. This reinforcement of information and advice was important to patients and their carer(s). Effective communication between two parties is the recipe to a successful outcome and this was clearly evident from the responses collated. The other clear theme was that patients and carer(s) did not want the intermediate care service to end. There was a level of reassurance and comfort from the care and support individuals were receiving. Leaving intermediate care meant that they were transferring into uncertain and unfamiliar territory.

In conclusion, the discharge/transfer questionnaires have showed how people appreciated continuity of care and cooperation between the intermediate care staff groups. The responses illustrated how important it is for individuals to be kept informed and involved in their own care decisions. The discharge/transfer questionnaires gave individuals a platform to document and share their appreciation. The questionnaires allowed patients to document any issues anonymously or by name. The responses recorded in the discharge/transfer questionnaire have been extremely invaluable and a very rich source of information.

4.5.2 Patient Interviews

To obtain a better understanding of the patient's prior experience, the influence of the intermediate care service and future aspirations thirty-five patients were selected and interviewed. Individuals for interview were selected by purposive sampling. The researcher acknowledges the risks of bias using this method and the possible risk of un-representation of the target population in the study. However, the only exclusions from selection were those individuals who had memory impairment or those who were too poorly to contribute at the time of the interviews being conducted. The researcher had allocated time within the data collection time-table (figure 3.2) and the intermediate care staff were asked to forward all names of those patients who were at the end of their intermediate care intervention during this period. Individuals were then randomly selected by their individual identification number. The thirty-five patient interviews were taped recorded and transcribed. The transcript was analysed by undertaking a microanalysis process as outlined in chapter three (section 3.6). This was achieved by considering the 'what, when, where, with whom, how and with what consequence'. The transcript was categorised by using single words,

phrases and sentences. This was accomplished by repeatedly looking for relationships between the categories and identifying if there was any consistency or patterns in the text. There were a number of key themes identified in the interview transcripts. This information could be collated in a timeline of influence and experience for each of the two intermediate care pathways as illustrated in figures 4.3 and 4.4. Figure 4.3 illustrates the pathway for a patient starting their journey from home as a ‘prevent an admission into an acute hospital’ referral to the intermediate care team. Figure 4.4 illustrates the pathway for a patient starting their journey from hospital as an ‘early discharge from an acute hospital’ referral to the intermediate care service.

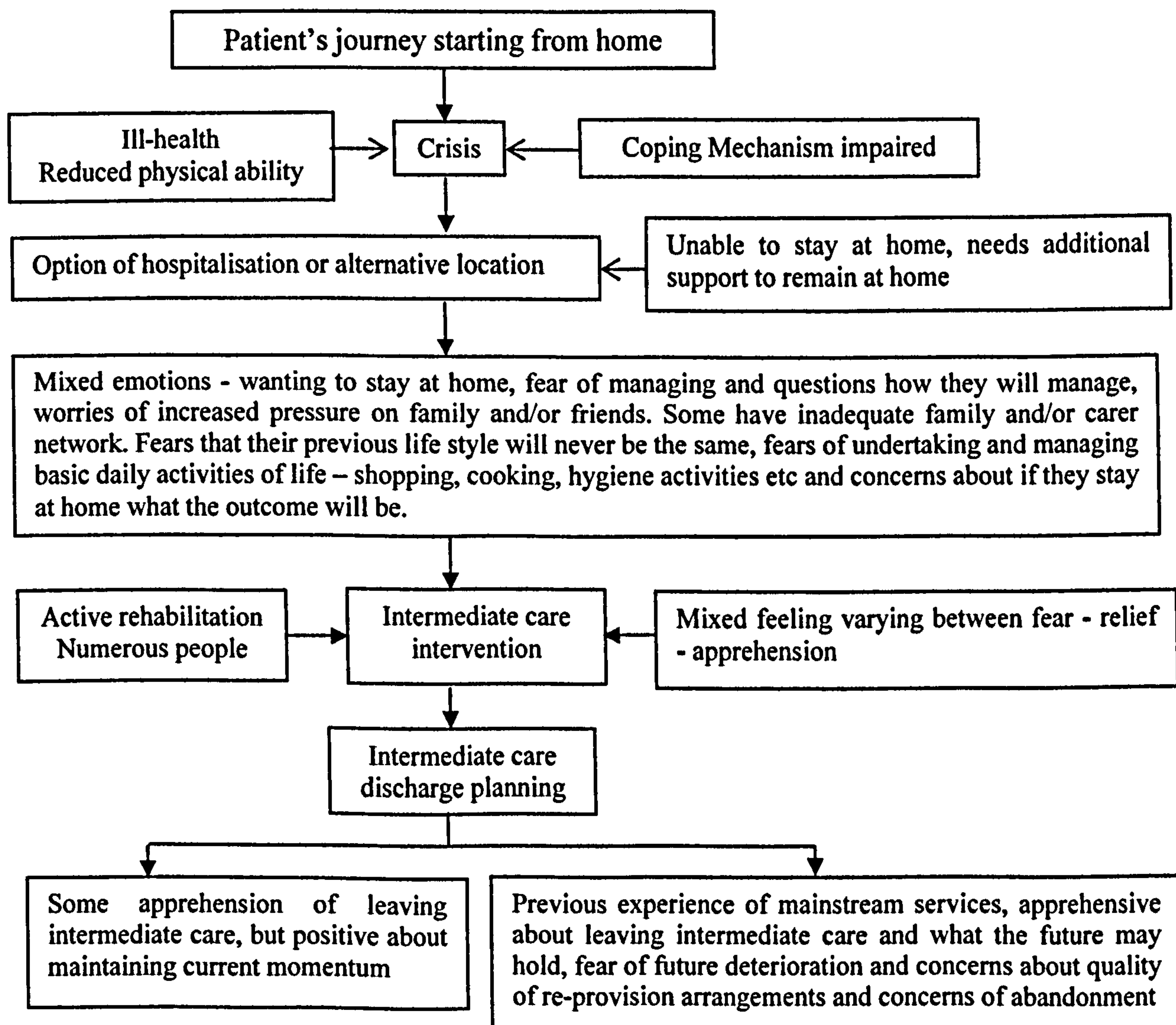


Figure 4.3: Patient's journey – prevent admission to hospital

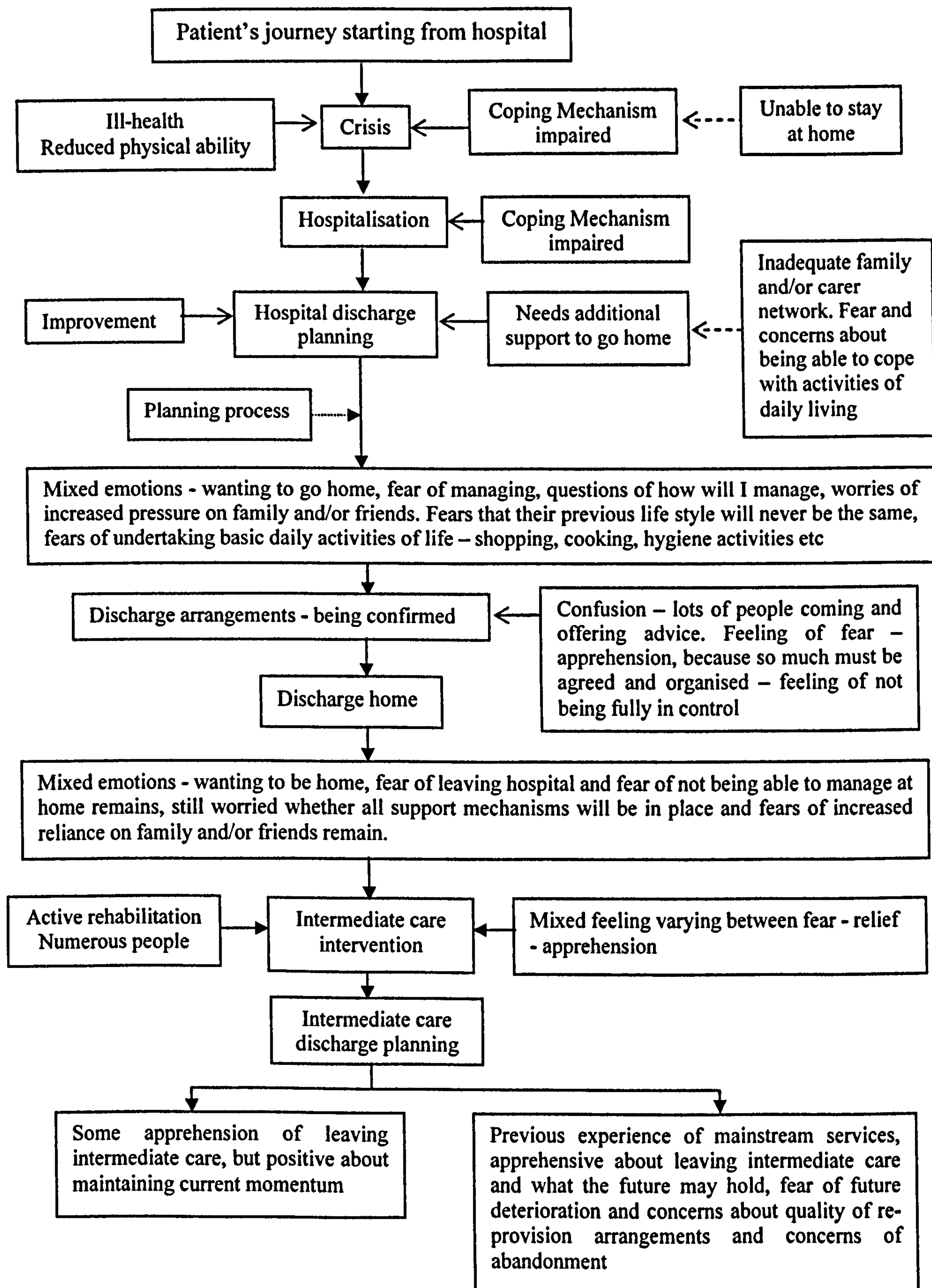


Figure 4.4: patient's journey – early discharge from hospital

The interview process did take into account patient's experience before accessing the intermediate care service (outline of patient semi-structured interviews see appendix

VIII). This included previous experience of care services (including intermediate care), family infrastructures and health status. The interview process allowed further exploration of the patient's journey and gave a wealth of information that allowed further exploration into a very complex subject area.

Although the patients journey in figure 4.3 and figure 4.4 start from two different points (home and hospital), there were similarities in their direction of travel. The emotions prior to crisis whether in hospital or at home were almost identical. There were concerns about what the future might hold for them and whether they would be able to remain at home or return home. Coping mechanisms were impaired and there was a reliance on others to manage basic activities of daily living. There was a fear for the future and a feeling of not being in control of their destiny. There were mixed feelings varying from fear to relief to apprehension.

Both groups of patients as illustrated in figure 4.3 and 4.4 were apprehensive about either staying at home or in hospital. Both groups were apprehensive about the next few weeks and whether they could manage at home. Patients in hospital felt safe by the mechanisms in place to support them twenty-four hours per day (hospital staff) and were worried about leaving this behind when they went home. The patients at home had a more intense fear of remaining at home, being safe and able to manage without going into hospital. Once the two groups (patients in hospital and patients at home) were under the care of the intermediate care service their feelings and direction of travel within the patient journey were almost identical and both groups experience similar emotions.

During the analysis it was noted that individual's experiences irrespective of their gender or age appeared to follow a similar continuum of emotions and coping strategies. This continuum was irregular, but predictable. Individuals appeared to go through different stages of fear and apprehension at one end (the beginning before accessing the intermediate care service) and moved forward towards feelings of almost contentment & relief at the other end of their journey (on leaving the intermediate care service). This pattern of emotion is illustrated in figure 4.5.

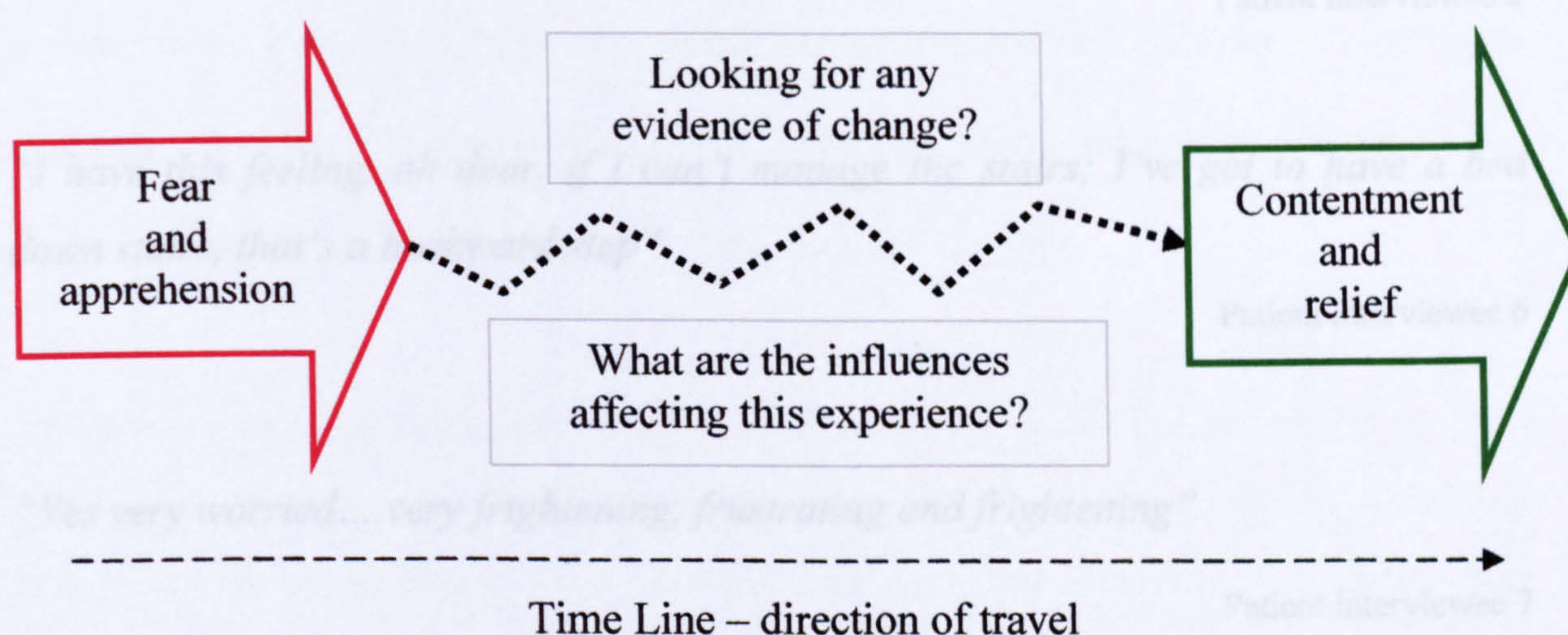


Figure 4.5: Interview theme time-line

There were many internal and external influences affecting the distance travelled between these two positions for all patients. These influences include health related issues, disability, support mechanisms, past experience etc. Although there were differences in personal experience and support structures, all patients experienced some level of concern for the future and apprehension. The support from the intermediate care service had impacted on the patient's experiences and their coping mechanisms. When the support from the intermediate care service was coming to an end there were a mixture of relief and contentment, that they would gain control over their lives once more.

As illustrated in figure 4.5, the first phase related to concerns about going home and these concerns were supported within the interview transcripts.

“Look at the state of me; never thought that I would get home, how I was going to manage, I can’t even get my knickers on without help. How was I going to do the basics, you know wash and dress, mine you, missing the odd meal might have done me a bit of good”

Patient interviewee 21

“Didn’t think that I would be able to cope on my own”

Patient interviewee 2

“I have this feeling, oh dear, if I can’t manage the stairs; I’ve got to have a bed down stairs, that’s a backward step”

Patient interviewee 6

“Yes very worried....very frightening, frustrating and frightening”

Patient interviewee 7

Some individuals were apprehensive, but content in going home. These mixed feelings were due to the drive to leave hospital and their dislike for hospital was far greater than how they would manage at home.

“I was really looking forward to coming home. The care was in place and everything was arranged”.

Patient interviewee 8

“I wanted to be home”.

Patient interviewee 10

A number of different factors, including the support mechanisms individuals receive and their health influenced this transitional change in the patient’s journey. Patients

living accommodation did not appear to make a significant difference. They might have to adjust or change the home lay out, for example bring their bed down stairs or accept a commode instead of going up stairs to the toilet. Within the patient's journey there were numerous peaks and troughs. Things did not always run smoothly and sometimes there was a backward step. One man got a chest infection, this resulted in some temporary deterioration and the outcome was an increase in his length of stay on the intermediate care service. One woman fell and bruised herself, this resulted in some loss of confidence and reduced mobility and again the outcome resulted in an increased length of stay on the intermediate care service. To give an example, illustrated below is a patient's reflection about support mechanisms and personal feelings to illustrate some of the peaks and troughs:

“They have done so much, any problem and it is sorted, if I am not doing too well one day, they are just so kind, the girls are sweeties, they let me take my time, they never rush me or get cross. We all have are off days and some days I do better than others, but that does not matter to them, ‘don’t worry that will say, just having an off day, you’ll be netter tomorrow’ and you know I usually am.....When I first came home, I just used to sit here, I thought I daren’t go into the kitchen and make a cup of tea, I just felt oh I might fall. Gradually with them, when they have been around, I got a bit of confidence back”

Patient interviewee 21

For those individuals who had previous personal experience or knowledge of standard mainstream care services, there was another step that appeared to move them backwards towards a negative trough. This negativity had not been anticipated (figure 4.6). Patients expressed a fear or apprehension for the future. They were worried about themselves and the affect on their family or friends. They did not want to be a burden, they were worried that the care option for them would not be reliable or of a good quality.

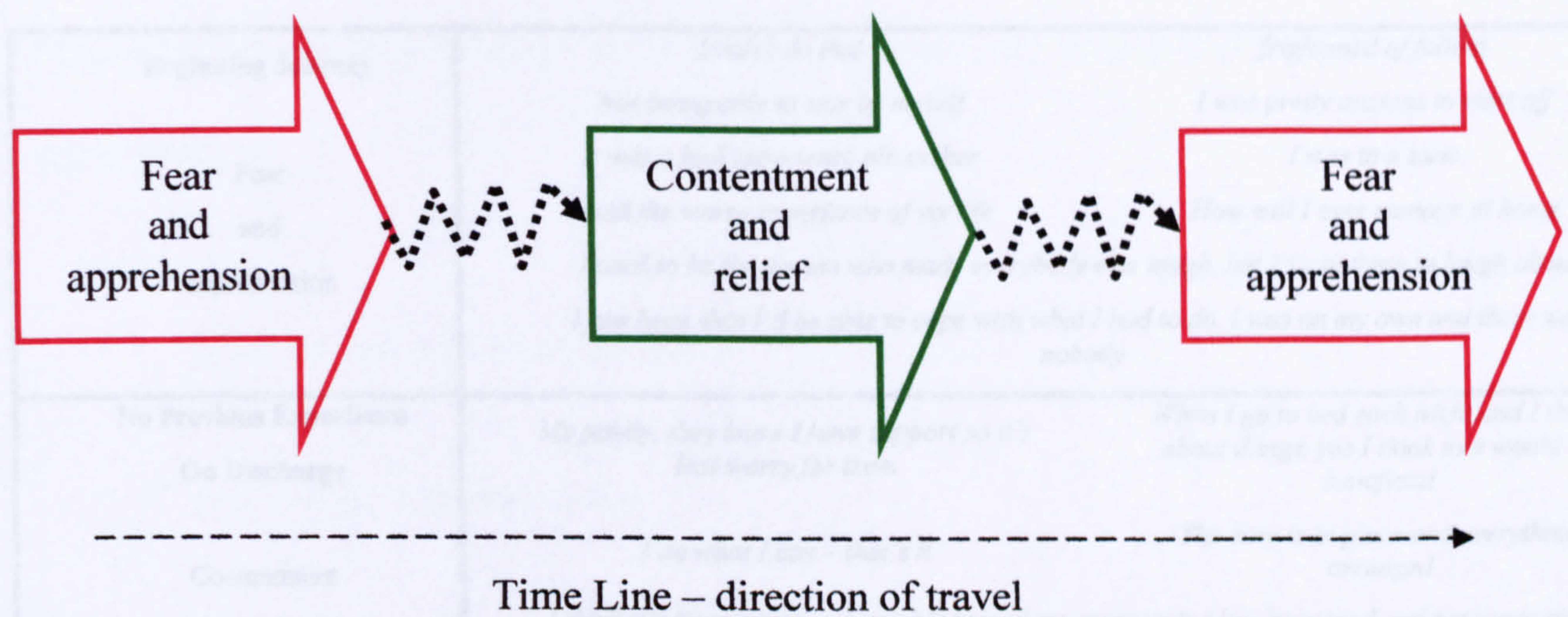


Figure 4.6: Interview theme time-line with prior knowledge

For example, a woman when asked if she had relied on care or had knowledge – responded:

“No I have not, but I can tell you something my neighbour is in a bit of a state, and she has carers coming in, that’s if they remember to turn up, never the same face, late or turn up when they are not wanted..... I have never had any problems with them (meaning the intermediate care carers), but my neighbour she has problems all the time, and I will have to have the same carers”.

Patient interviewee 21

There was an almost acceptance that the same fate would be theirs and that they were powerless to influence or change the outcome. To further evidence the patient’s journey it is possible to display other interviewee’s responses within the key stages of the patient’s journey at the start point and at the end point. Table 4.25 illustrates the responses split between the start and end point, but the end point is subdivided between previous and no experience.

<p>Beginning Journey</p> <p>Fear and apprehension</p>	<p><i>I can't do that</i></p> <p><i>Not being able to stay by myself</i></p> <p><i>It was a bad experience altogether</i></p> <p><i>I had the worse experience of my life</i></p> <p><i>I used to be the person who made everybody else laugh, but I've nothing to laugh about</i></p> <p><i>I just hope that I'd be able to cope with what I had to do. I was on my own and there was nobody</i></p>	<p><i>frightened of falling</i></p> <p><i>I was pretty anxious to start off</i></p> <p><i>I was in a state</i></p> <p><i>How will I ever manage at home</i></p>
<p>No Previous Experience On Discharge</p> <p>Contentment and relief</p>	<p><i>My family, they know I have support so it's less worry for them</i></p> <p><i>I do what I can – that's it</i></p> <p><i>I think it's been very good and it's helped me accept what has happened and not panic over it</i></p> <p><i>I went out on my own to do my shopping. Just went round the corner for some and straight back</i></p>	<p><i>When I go to bed each night and I think about things, yes I think that would be beneficial</i></p> <p><i>The care is in place and everything arranged</i></p>
<p>Previous Experience on Discharge</p> <p>Fear and apprehension</p>	<p><i>What will happen to me</i></p> <p><i>I didn't realise that this was only temporary</i></p> <p><i>Sometimes I can go for, let's see a whole week without seeing anyone</i></p> <p><i>With there just being the two of us, that reassurance makes a big difference</i></p> <p><i>Well the mere thought that we knew somebody was coming in, there was somebody to listen to, there was somebody to talk to, they didn't mind what it was that we were worried about they just gave advise and if they couldn't do it, made sure we got it from another person, but will that still happen?</i></p>	<p><i>Will the new carers turn up</i></p>

Table 4.25: Interview themes linked to time-line

There were many emotions affecting patients at differing times during their journey. Not all these related to their physical health. Patients were worried about what the future held for them and would they ever return back to normality. There was this fear of not being in control and feeling powerless. The reliance on others was not always welcome.

“I just want to get on with my life, I didn't need their help”

Patient interviewee 14

The analysis has shown that the patient's journey was individual to each participant. However, it was possible to make comparisons. The extent of disability did not appear to influence the length of stay. There was a perception by individuals who

were interviewed, that ill health or infirmity was inevitable and linked to age and the aging process:

- *“What do you expect at my age”*
- *“I should have known better”*
- *“I knew the signs, but took no notice”*
- *“That’s my lot in life”*

There was a fear of being a burden – a burden on individuals not necessarily family or friends as illustrated in figure 4.7

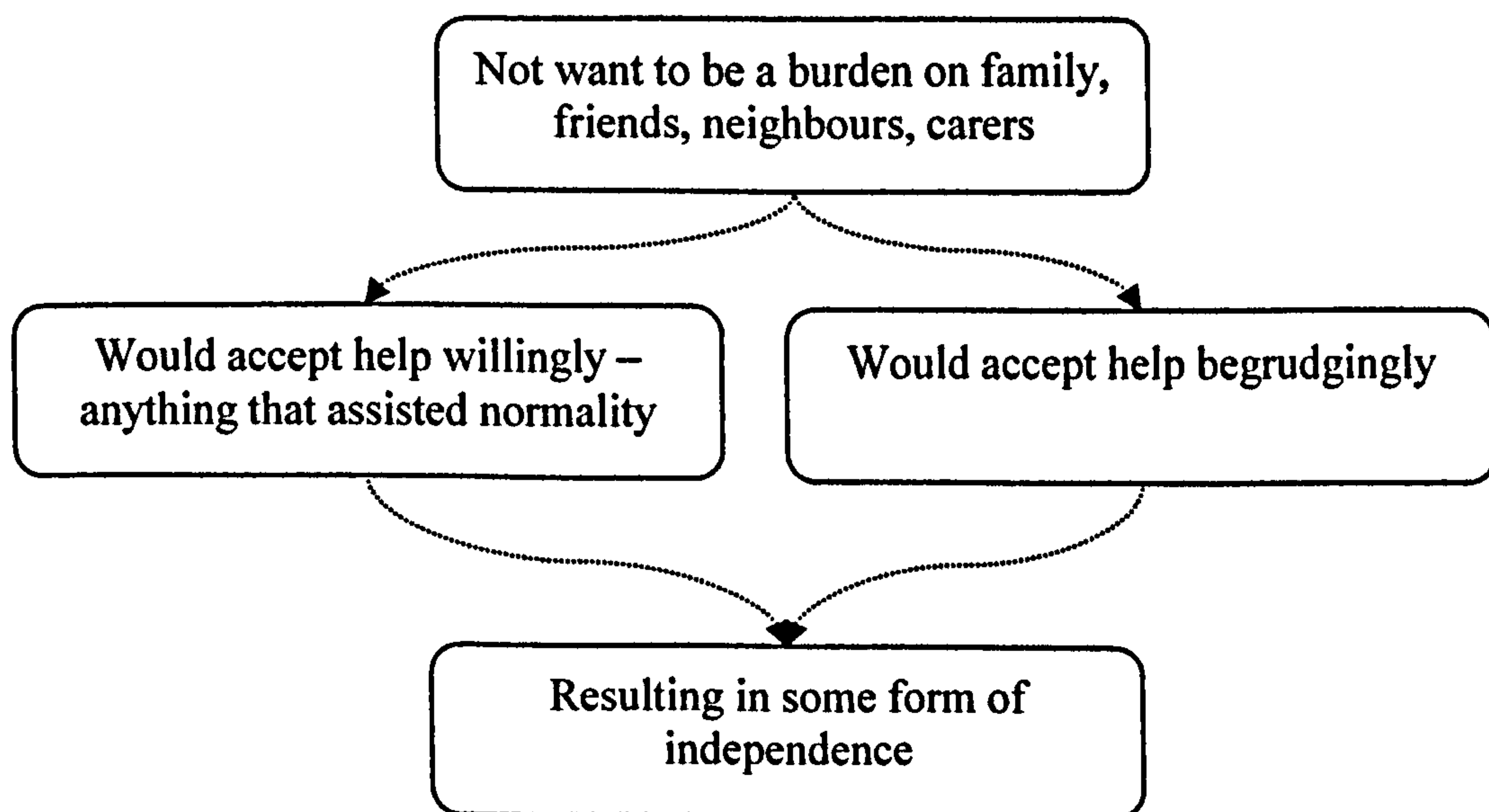


Figure 4.7: Not wanting to be a burden flowchart

Many of the patients interviewed did not want to be a burden on family or friends. Maintaining their own independence was important to them in order to protect the relationship that held with their family.

“I didn’t want to be a bother; my son and his wife have their own busy lives. It was bad enough them trying to visit me every day in hospital. They do my shopping I

forgot to tell you that and odd jobs if I need them to. They both work, oh no, I couldn't ask for more. I couldn't ask them. Oh no, not personal things, just wouldn't be right"

Patient interviewee 17

Some of the patient's individual's aspirations were not always realistic. This sometimes related to control or the lack of control over their lives. For example, some individuals accepted that there would be a change in their lives, whereas others wanted to be independent again and not have to rely on others.

"I know that I will never be the same again and may never get on the bus and do my shopping, but I'm home.....this is where I have lived all my married life and when I leave here I want it to be in a box and not a taxi to a home".

Patient interviewee 31

There was clear evidence in the data that individuals did not want the service to be stop or be temporary. There was no evidence in the data to conclude that individuals did anything to delay or prevent leaving the service, but clearly some were reluctant that it would have to end. There was a desire for empowerment to influence and control their own destiny to the best of their ability and to make informed choices (decision making processes). It must be acknowledged that patient's personal view did not always reflect the therapeutic view. Patients desired outcomes were not always realistic and some patients had difficulty accepting that truth.

"I just wanted to go home, I was doing alright. They were worried about the stairs, I told my son, I didn't need my bed down stairs. I wasn't going to use a commode. If I just got home it would be alright.....When everyone had gone I felt so alone, I couldn't just call the nurse like in hospital and my bed, yes xxx was right, them stairs could have been Mount Everest. I don't go up now".

Patient interview 27

Some of the participants made quite pragmatic assumptions about their life and experiences. These beliefs did not always reflect on reality. For example, patient eight had assumed that their current life experience (crisis) was normal for someone of their age. They made this assumption on societies stereotyping of an older person and expected outcome of being old.

“What can someone expect at my time of life?”

Patient interviewee 8

The patient interviews have been a rich source of data. The patients were all very open and honest about their personal feelings and aspirations. They were not restricted in expressing themselves by the interview process. Patients wanted to return to some form of normality, even if this meant that they had to accept additional support. Patients felt empowered by the intermediate care experience, they commented on being treated with respect and being involved in their care decisions. However, they clearly did not want to be a burden on family or friends and this fear for the future was strong.

4.5.3 Carer Interviews

To obtain a better understanding of carer’s prior experience, including the influence of the intermediate care service and future aspirations five carers were selected and interviewed. The five carer interviews were taped recorded and transcribed for easier analysis (copy of semi-structured carers interview questions see appendix IX). There was a mixed response from these interviews, but equally there were very clear themes in the content of the data collected. There was an assumption that carers have

a duty or responsibility to support a member of their immediate family. That it was a normal function to care for someone even if circumstances were difficult.

“We’re use to coping... we didn’t really know what to expect so you’ve grateful for what help you get”

Carer interview 1

There was clear evidence in the data collected that people were grateful. There was also evidence that people had been struggling to manage before the intermediate care intervention. This difficulty appeared to arise from family unit structures and access to carer support. The support from grown-up children could not be relied upon. Family units tended to live and work apart. Even when a daughter lived close by, this could not be relied upon because she was in full-time work. The commitment to employment or other family responsibilities reduced the access to extended family support.

The intermediate care service had supported them (the carer) in crisis, and now it was withdrawing. For carer (1) what is *normal* - normal to them can be very different to another individual. The word used to describe their uncertainty, what does it mean in the context of this conversation. What do they mean in relation to their current circumstances as being ‘*iffy*’?

“We’ve back to normal now but it’s iffy”

Carer interview 1

Is it an accepted assumption that the current situation for the carer is uncertain? Does this uncertainty cause doubt on how they will manage in the future and what elements of their life are back to normal? Is there an accepted level of change

following a crisis to make things normal again? Or do they assume that life is meant to be this way?

“We just take each day as its comes, some days things go well and others not so good”.

Carer interview 3

Should it be a normal recurrence that people should be grateful for any support?

“Don’t know how we would have managed without the girls coming in every day. Just so grateful for everything they have done... ..wouldn’t be here today if it wasn’t for them”.

Carer interview 2

What was important to carers was being listened to, being kept informed and valued.

“All the time, felt that my feeling were taken into consideration, I was listened to... ..when you walk out that door I am the one left here”.

Carer interview 3

“You ask if I’ve felt involved in my wife’s care, yes all the time, I was listen to, they did things that helped me to... ..all these people coming in and out all the time, they never forgot to ask how I was”.

Carer interview 4

Marriage or partnership is held as a strong commitment. Mutual trust and patterns of coping had built up over the years. However, this does not mean that you have to carry out your responsibility without additional support external to the family unit.

“When you have been married as long as us, forty-seven years and never been apart. Not going to start now, we can manage. Can we cope, well we’ve managed up to

now, you ask if I worry about the future, yes of course I do. As long as my health sticks out we'll be alright.....”

Carer interview 5

There was a clear defining theme. Having the support of the intermediate care service had made a difference.

“If it was not for their help then xxx would be in a home and I'd be six foot under”.

Carer interview 5

There were however, a twist. In the first coding procedure, the fear for the future outcome was not originally identified (as illustrated in figure 4.8).

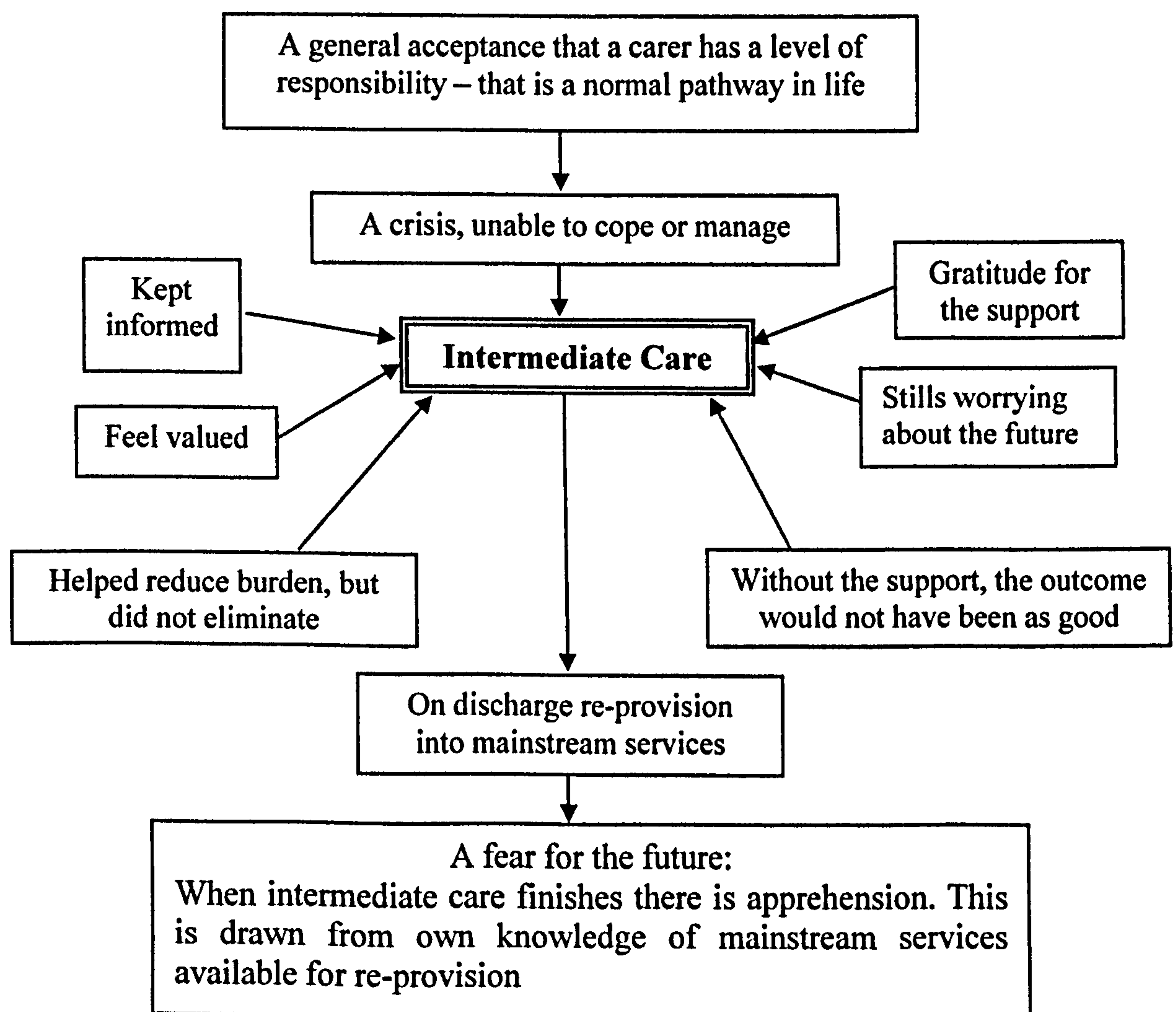


Figure 4.8: Carer themes

Carers knew that they had to accept help and knew that they were getting to a point when they could no longer manage. The carers accepted the help of the intermediate care service, but not all were willing. There was still a feeling of guilt that they had to accept help in the first place, there was a feeling of duty and not wanting to let the patient down.

“The carers, they have taken a great weight off my shoulders “

Carer interview 4

The carers also had a fear of the future and raised concerns about what the future might hold not just for the patient, but themselves. Concerns about the future were influenced by previous knowledge or from other sources (friends who have experienced care from private care agencies). The timeline for carers started off negative and ended in negative thoughts, this is illustrated in figure 4.9.

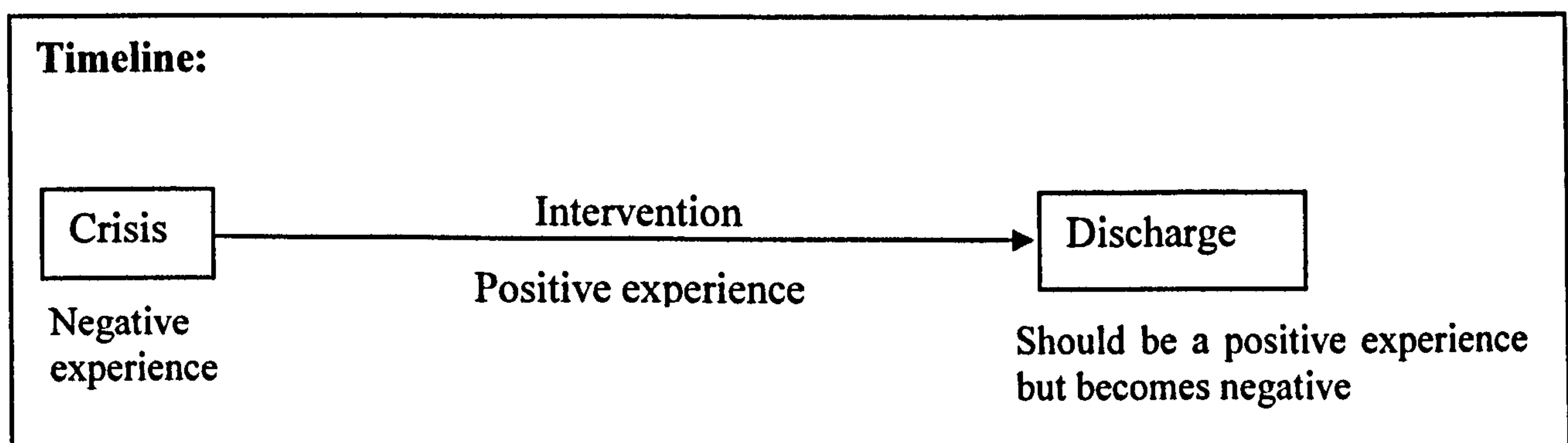


Figure 4.9: Carer timeline

An assumption made is that carer burden was reduced. The support clearly made a difference in how carers managed, but their level of responsibility did not change. This is an important point to make, because although support mechanisms were put in place to empower the carer and reduce carer burden. Their actual level of responsibility to the person they were caring for did not change. Comments about

“wouldn’t have managed without the services help” were echoed by many. Carer’s gratitude for the support they received was clearly raised.

“When you get to our age you get to a point when you have to accept help or you’re on a slippery slope to nowhere. Last month it got to that point. We’ve been doing alright, but I just couldn’t get xxx out of bed, legs were like jelly, just didn’t want work”.

Carer interview 4

When asked if there was one thing that had made a difference since the intermediate care support started, the interviewees responded:

“Peace of mind, yes peace of mind”

Carer interview 1

“Being listened to, someone else understands”

Carer interview 2

“Everything, no one thing”

Carer interview 3

“Not one, lots, just keeping xxx at home, that is all I wanted and you gave me that”

Carer interview 5

The role of lay carers (spouse or child) is pivotal to the success of the intermediate care intervention. Once the intermediate care service has finished, it is the carer who must ensure that everything that is put in place maintains the status-quo for the patient. This level of responsibility never changes.

“This service is only for six weeks and we’re nearly at the end, yes I do worry, the girls have been wonderful, xxx wouldn’t be at home today without their support, look

at the equipment around us, all to help mum. I've asked if they can say longer, by xxx says that we need to have the review on Tuesday to plan mums discharge. I don't know what I will do"

Carer interview 1

"I would be a fool if I did not care about the future, I don't know what it holds, as long as we can stay together that's all that counts"

Carer interview 2

"No not worry, maybe, don't know, who knows what is going to happen. A lots been done for us, need to carry on. Just hope that the new carers are just as good. Who Knows?"

Carer interview 4

All five carers interviewed would use the service again and one of the carers already has the number of the intermediate care service by their telephone just in case things on discharge/transfer do not go according to plan.

In conclusion, a great deal is expected from carers, but the carers in this study seem to accept that it is a normal occurrence and a role that they consent to sometimes under very difficult circumstances. It is difficult to conclude that an intermediate care intervention reduced carer burden, carers in this study did not see their care responsibility as a burden. What did increase was carer reasonability and carer stress. Caring for another individual at anytime is difficult, that difficulty is increased when the carer is actually elderly and might not even have good health themselves. Carers implemented coping strategies to reduce the possible physical or psychological effects of caring for someone. The issue not reviewed in this study is whether carers are able to continue long-term with these coping strategies.

4.6 Experience of Staff (Intermediate Care Staff and Referrers into the Intermediate Care Service)

The fifth aim of this study wanted to ascertain what were the experience and expectations of staff groups, including the intermediate care staff and those staff groups who referred into the intermediate care service. The main purpose of this aim was to ensure that there was multi-agency/disciplinary representation to explore personal experience and aspirations.

4.6.1 Experience of the Intermediate Care Staff

To obtain a better understanding of why individuals chose to work in the intermediate care service, one individual from each of the ten disciplines representing the intermediate care service in this study (PCT and Local Authority) were selected and interviewed.

The ten intermediate care staff interviews were taped recorded and transcribed for easier analysis. All intermediate care disciplines were interviewed (Band 6 & band 5 nurse, assessment officer, care coordinator, home carer, care officer, physiotherapist, occupational therapist, speech & language therapist, dietician). It was not possible to interview all intermediate care staff. To ensure that there was full representation of the intermediate care staff. One member of each discipline was selected for interview. The analysis of the staff interviews revealed a number of key themes as illustrated in figure 4.10. The raw data from the interviews could be collated to represent their main themes and these were personal (about themselves), related to

the patient (which related to either the patient or their care networks) and organisational (working environment and employer).

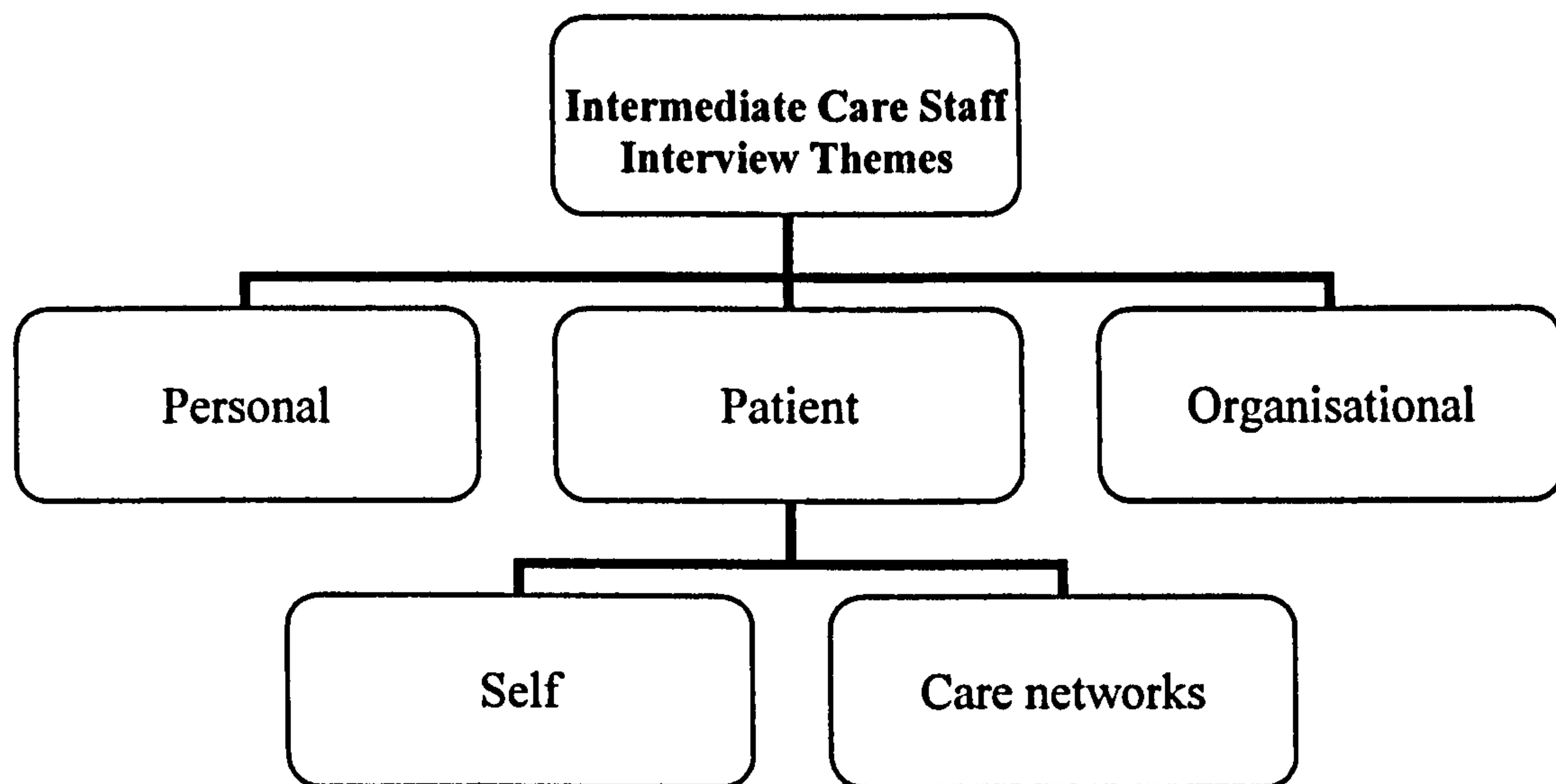


Figure 4.10: Intermediate care staff interview themes

From the three main themes a number of sub-categories were developed and these are illustrated in figure 4.11. The rationale was not to purely look at the descriptive content of the transcripts, but to look at it in an analytical sense. This type of analysis allows you to break apart the information and to try to understand the context of the event (Strauss & Corbin 1998).

Firstly, relevant sections of the text were highlighted and comments made in the margin. These were then cut out and arranged under the three main headings (personal, patient and organisation). The patient sub-heading was further split to illustrate patient issues between self and care networks. The analysis process generated so much information from the ten discipline interviews. To demonstrate how figure 4.11 was generated. Examples are given from the transcripts split between the three main themes.

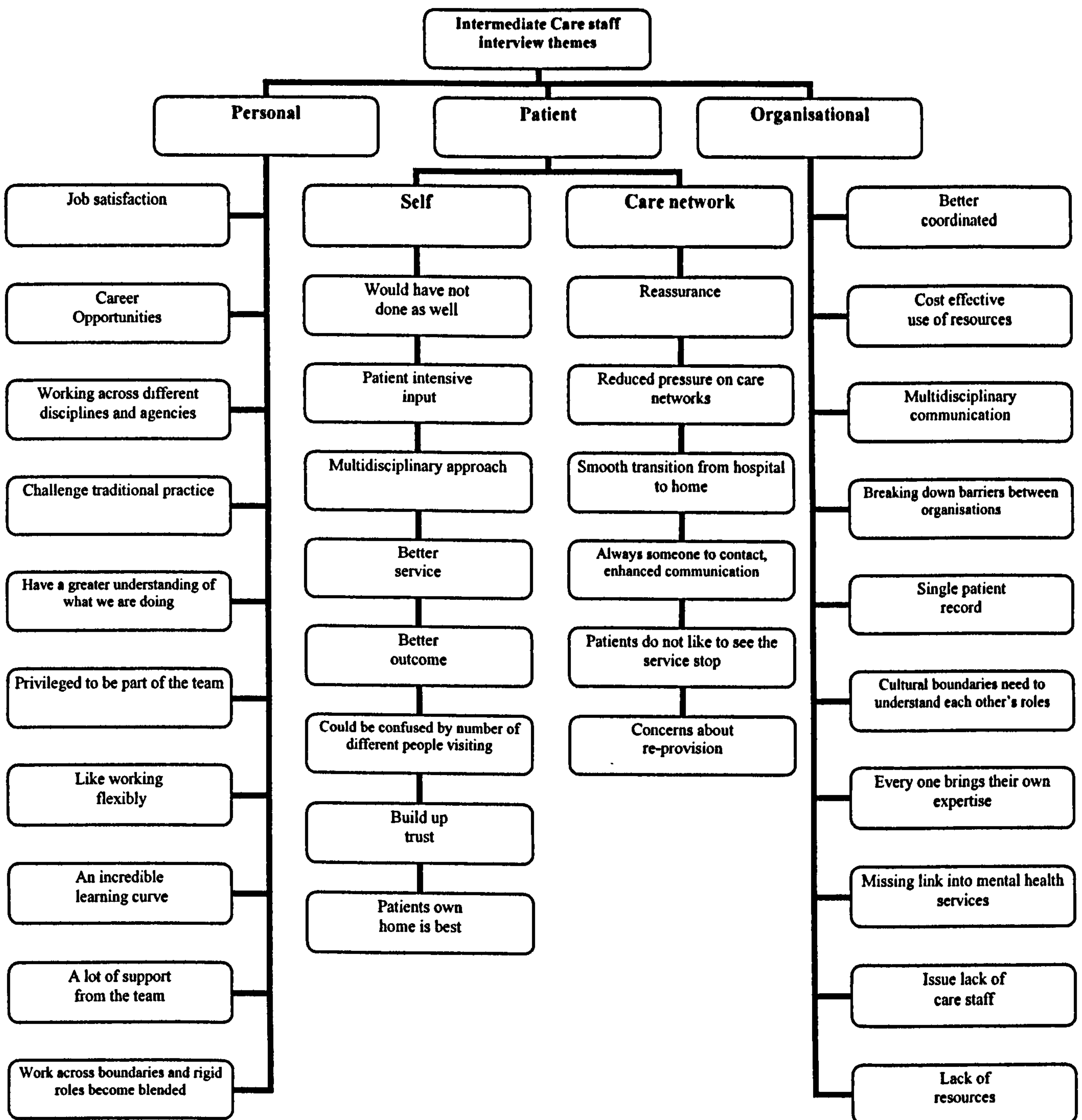


Figure 4.11 Intermediate care staff interview themes and sub-categories

Personal - all ten staff interviewees related personal issues to why they worked in intermediate care, some of these related to job satisfaction, team working and career opportunities.

“It was the right time for me to do something different, this was going to be a challenge and I wanted it”

“I thought intermediate care would be expanding and growing so fast that there was such a good opportunity to develop, not only the service but also develop personally, I decided to look into intermediate care, found it very interesting and decided to go with it”

Intermediate Care staff interview 2

“I like working with people in their own home”

Intermediate Care staff interview 3

“I wanted to combine the multidisciplinary health bit as well as the community bit and intermediate care was the deal”

Intermediate Care staff interview 4

“Because it offers me what I want, what I’m looking for at this stage in my career which is to be in the community, working in a multidisciplinary team with a client group that I enjoy, it’s varied”

Intermediate Care staff interview 5

“Some of the time, I have to be honest, I like the idea of what Intermediate Care Team’s about but sometimes the reality I find a little bit more challenging and maybe sometimes wonder what I am doing”

Intermediate Care staff interview 6

“The team working is something that I’ve always enjoyed and something that I’ve always found useful ...and just the opportunity to meet lots of people, work with lots of different people”

Intermediate Care staff interview 7

“I just needed a change of job”

Intermediate Care staff interview 8

“I worked for the acute system for 20 years since I qualified and never wanted to work in the community before and thought it was quite a good time to make that

transition and use my rehab skills in the community so the rehab element wasn't new but the community element was new"

Intermediate Care staff interview 9

"I wanted to broaden my outlook ... prior to starting this job I thought I had a good insight into how multidisciplinary team working worked. It is not until you work within a close knit team like this that you see how all of the elements gel together to provide a package of care"

Intermediate Care staff interview 10

Patient - the intermediate care staff were very passionate about their role and responsibility to their patients. The concerns for patients related to the individual patient and to the patients care network (relating to current and the future).

"The service ensures a smooth transition say for example from hospital discharge to home, or stepping up from home into hospital admission.....provides a channel for patients to access other services"

Intermediate Care staff interview 1

"People would normally be sent home without support and without intensive input of say – therapists, would not have done as well as the people that come onto intermediate care who seem to be fairly better off than other patients"

Intermediate Care staff interview 2

"It's good when you see someone, how improved they are when we discharge them, people come along with a lot of input at first but they don't need anything at the end of the service"

Intermediate Care staff interview 4

"Intermediate care has a very positive outcome ... they feel that they are getting more support and they've got back up from the team ... I can see their confidence.

The sheer panic on their face when they come out of hospital and then the fact that there are all these people coming to see them is very reassuring ...it seems to be that they've doing things a lot quicker than maybe they would have done having just gone home"

Intermediate Care staff interview 6

"Obviously its more intensive and we have a lot more contact with not just the patient but any family who might be there as well and at the same time I think we are getting a lot of positive outcomes ... we can set up programmes with the carers so it's not just I going in"

Intermediate Care staff interview 7

"I think the vast majority of patients properly get a better deal than if they were treated in bits by all the same, the same professionals ... they tend to work separately get referred to different departments etc .. I think our patients get a tremendous deal with us ...I think it is more focused ... the keen approach and the input from lots and lots of people that are required and then the communication between them"

Intermediate Care staff interview 8

"Patients that we go to are very grateful of the support, we can tell by our goal setting, that they improve because of the therapy and the care that they have had anybody who's been in hospital especially perhaps the older person who maybe is slightly more vulnerable in some ways to come home, perhaps they live alone or they've feeling slightly frightened when they come out of hospital to have the support network is really, really important"

Intermediate Care staff interview 9

"The transition for someone coming home from hospital with a supported discharge, having the input and being able to continue on with that rehabilitation for the patient to reach their ultimate potential must be positive.....you share information more regularly, you work as a team, you make joint decisions, joint planning, regard a patients welfare so it's really beneficial to have such a close relationship"

Intermediate Care staff interview 10

Organisational - the organisational themes varied across a wide spectrum between team dynamics, communication issues and access to other service elements (internal and external).

“We share resources, like equipment ... you share information more regularly... you make joint decisions ...joint planning... you see things through other people’s eyes... we’re all aware of each other’s strengths and weaknesses and who to draw on for information”

Intermediate Care staff interview 1

“We have a criteria, very rehab focused, don’t cherry pick, don’t discriminate against someone like with memory problems”

Intermediate Care staff interview 2

“Part of a multidisciplinary team I think is quite challenging, to hear other peoples approach which is going to be different to my approach sometimes. I feel like I learn a lot and I feel like hopefully I can challenge other people’s ways of looking at things and thinking about things and we can all have a greater understanding of what we do and why...better outcome for the patient, all joined up”

Intermediate Care staff interview 4

“The benefit of working with other therapists because you are looking at someone much more holistically and it’s far easier to influence the outcome when everybody is on board and people are more aware”

Intermediate Care staff interview 6

“Previously I’ve worked on the wards or in outpatients’ services where most of the contract you get with other professionals or other professional opinions would be through their notes (patient) ... this is different one record and everything shared”

Intermediate Care staff interview 7

“Good communication and everybody works towards the same goals for that particular Patient so it’s more efficient and hopefully it’s a better experience for the patient:

Intermediate Care staff interview 8

“Working in a team we are very supportive of each other. Everyone is approachable, we share information, we share knowledge, we support each other”

Intermediate Care staff interview 9

“The MDT teams meetings you see things through other people’s eyes. It’s interesting that you get together on a weekly basis so you’ve got a forum to share information about patientswe’ve all aware of each other’s strengths and weaknesses and where to draw on for information”.

Intermediate Care staff interview 10

Other concepts of the data - during the analytical process, it was not always possible to identify emerging themes. For example, one short nine-word sentence within a 953-word transcript can be interrupted in a number of ways.

“I view it as the glue within the system”.

Intermediate Care staff interview 1

Questions raised included - in what context is this statement being made? Where are they drawing the evidence to support such a claim? What system are they referring to and in what context? What do they mean by glue, is this terminology used in a positive or negative manner? Glue can draw things together or equally it can make things stick together and make them become inflexible. What is a ‘system’, this could mean many things and how does it relate to this event?

“They find it difficult to let go of their little bit of turf, rather than welcoming somebody from a different perspective into their territory”.

Intermediate Care staff interview 1

The interviewee above was talking about communication and difficulties that can be experienced from working across multi-disciplinary boundaries. Single words can be taken out of context. Within the analyst of this short sentence above, you need to listen closely to what they are trying to say and how they are saying it. Whom are they referring to? What do they mean by *“let go of their little bit of turf”* There is a strange use of words when trying to verbalise that people have difficulty in working outside of their professional boundaries. Social roles exist because they perform a function by maintaining a social system and individuals acquire their identity from being socialised into these roles (Alaszewski & Manthorpe 1995).

Working in intermediate care does have its difficulties and this is no different to any other service. Access to adequate resources whether equipment or human can inhibit or limit service input.

“We don’t have enough carers to provide care, that’s one issue – patients are staying in hospital longer which completely defeats the object of what we’re about”.

Intermediate Care staff interview 9

For patients who receive the intermediate care service this involves a significant number of different disciplines visiting them in their own home. In a hospital environment, this does not appear to be so noticeable, but when transferred into someone’s own home, the number of individuals visiting can be daunting.

“The broad spectrum of people being involved, can be difficult for the patient”

Intermediate Care staff interview 8

There were concerns raised by the staff and some identified negative aspect of the service, these responses related to not being co-located, large geographical area and access to carers.

“Another thing that would be good if we all had a base together ... but at least if I had my computer based there and my information data base that I could access with health”.

Intermediate Care staff interview 4

“The team I’m based with, the thing that seems to limit us the most often is the resources we cover such a large area”

Intermediate Care staff interview 6

“Where it falls down for me is when we haven’t got enough staff to do what is needed so the carers is one that sticks in mind”

Intermediate Care staff interview 5

The intermediate care staff were very passionate about their work in the intermediate care service. Working in a multi-agency/disciplinary team had been a new experience for some and very challenging at times. The breaking down of traditional barriers and cultures between the different staff groups had been hard work and had taken a lot of time and commitment by the staff involved. The staff had reported that it has taken a number of years in some instances to develop the current working practice in the team. However, staff felt that the integrated working between the different agencies and disciplines had benefited the patient and enhanced their job satisfaction. The staff working in the intermediate care service seemed to rise above any difficulties by drawing on the strength and inspiration of working within a multi-disciplinary team. Working in an integrated team does have its problems. Access to

resources can affect the robustness of the service. Difficulties in discharging/transferring patients into the care of private/independent providers of social care had been challenging at times for staff.

4.6.2 Experience of Individuals who Refer into the Intermediate Care Service

To obtain a better understanding of why individuals chose to refer patients into the intermediate care service, five individuals who had referred patients into the intermediate care service were selected and interviewed. The five-referrer interviews were taped recorded and transcribed for easier analysis. The rationale was not to purely look at the descriptive content of the transcripts, but to look at it in an analytic sense. This type of approach allows the data to be broken apart and in order to understand the context of the event (Strauss & Corbin 1998). Firstly, relevant sections of the text were highlighted and comments made in the margin. By cutting out the identified sections, it was possible to form ten themed areas as illustrated in figure 4.12. The grouping of key themed areas helped in the interpretation of the transcripts.

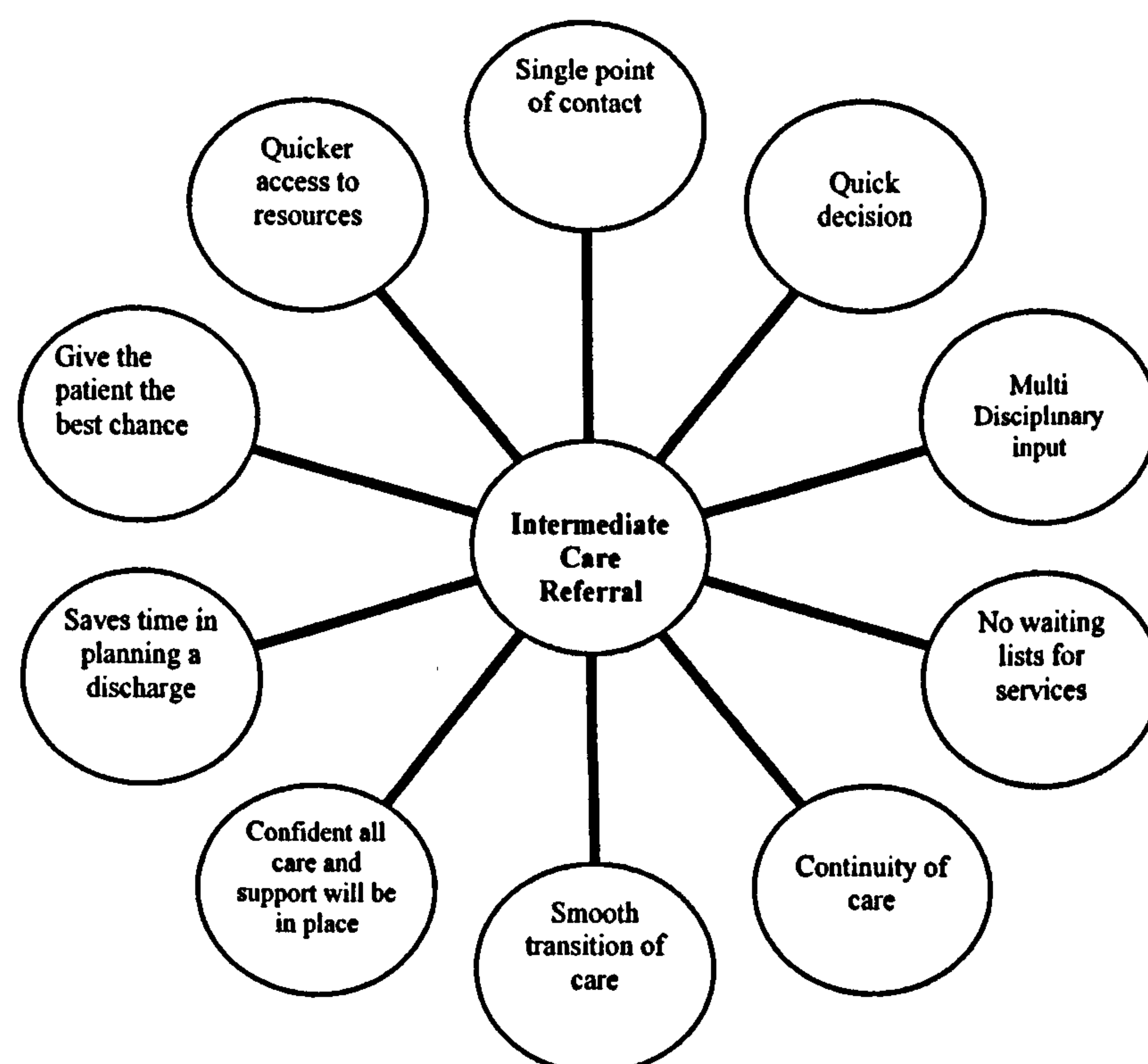


Figure 4.12: Referrer interviews themes

The themes identified in figure 4.12 cover a considerable range, but there were connections between the themes. In exploring these connections, it was possible to relate them to the patient's journey and staffs working environment (figure 4.13).

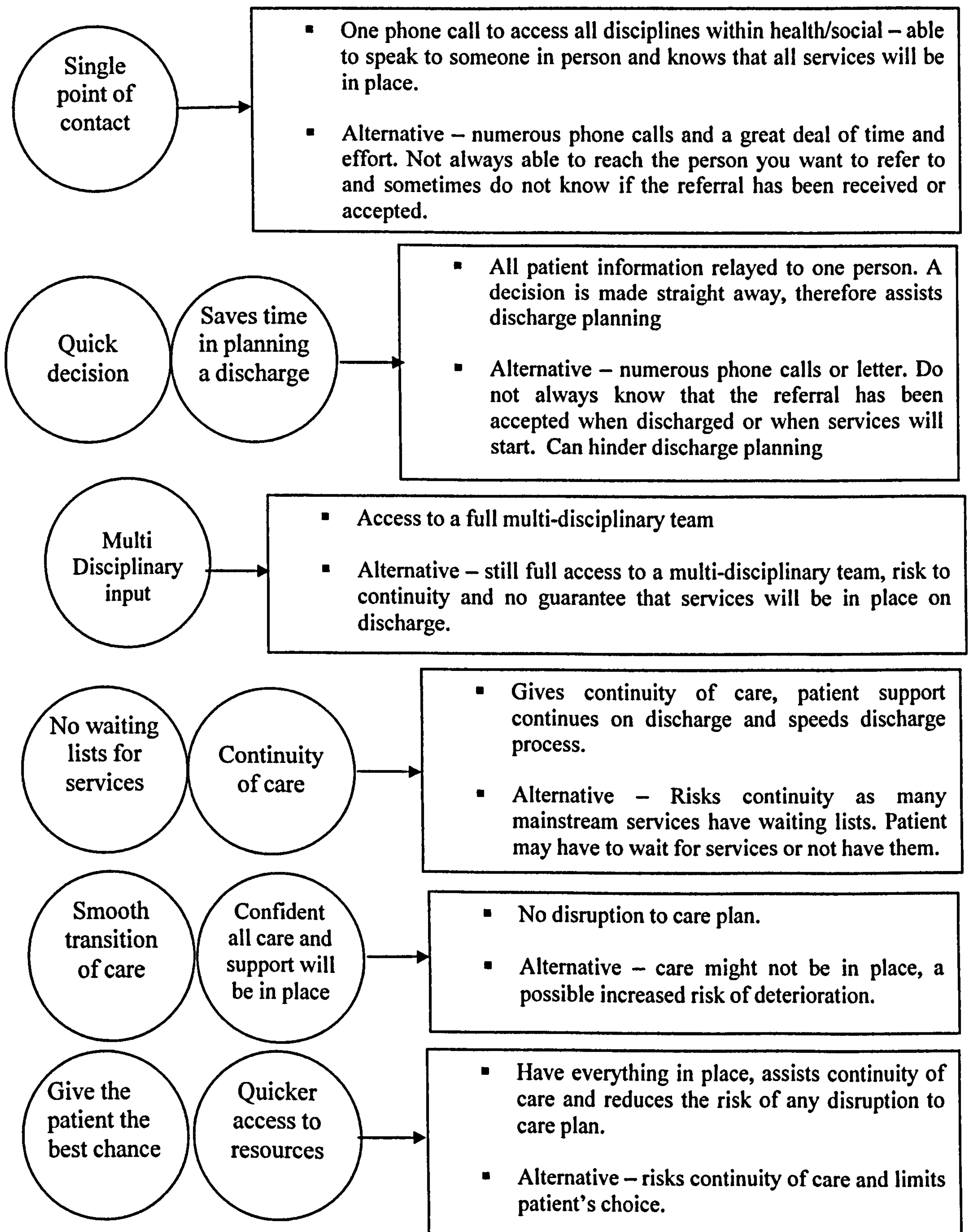


Figure 4.13: Referrer interviews - exploring the themes and relationships:

Figure 4.13 is quite complex, but the rationale behind the connected themes is simply explained. Discharge planning for any patient is complex, staff clearly found making one phone call to a single point eased the pressures placed upon them and saved considerable time. The demand for acute beds is always high, therefore quick decisions to support discharge ensures quick and speedy transfers and elevates some of the pressure placed upon the acute resources. Referrals to a multi-disciplinary team ensured continuity of care on discharge from the acute hospital. This allowed a smooth transition of care, with no disruptions in the patients care plan. Staff felt that this option gave patients the best chance of recovery.

Referrers into the intermediate care service had responsibilities to ensure effective and safe discharges for their patients (National Audit Office 2003, DoH 2003e). Any discharge from an acute hospital can be a distressing time for patients and their families. The demand for acute beds adds additional pressure on the acute hospital staff to ensure timely and appropriate discharges. The referrers had gained confidence in referring into the intermediate care service. This confidence was made possible for a number of reasons. Patients with complex needs could have all their discharge coordinated by one phone call, instead of numerous to different agencies. This positive aspect of intermediate care gave referrers confidence.

“Oh yes, you feel confident that the care and support that they need is going to be there, quite often we send someone home, everything falls to pieces you know what it is like, they’re back with us, Not only that but xxx will come on the ward and visit the patient, everything is disgusted with us and the patient, you know what is happening, they always keep you informed”.

Referrer interviewee 4

“When someone is admitted to our ward, the plan is to get them back on their feet and home again, that’s our aim, working with them and their family. When they go home you just want everything to be right and how do you know that will happen – well you have to trust the other end and hope and pray that it will be successful”.

Referrer interviewee 2

“Just one telephone call and everything is in place”

Referrer interviewee 4

“The care plan goes home with the patient, there’s no waiting time, delays for say physio, it just carries on”.

Referrer interviewee 3

“When your patient goes home, you never really know if they will be alright - manage, whether they can manage or not. At least you know that there is someone who knows what they’ve doing, to check. That’s important when they go home with equipment, ok here on the ward, but home you know is different, we’ve not there, can’t ring and ask”

Referrer interviewee 5

There were a number of comments relating to capacity within the intermediate care service raised. This related to carer input by the intermediate care carers. This capacity issue could influence the timing of discharge arrangements. There were reported delays in coordinating and agreeing discharge times due to the unavailability of the intermediate care carers.

“I think on a number of occasions, yes getting the care hours was a difficulty....If you can’t get the carers, then they can’t go home”.

Referrer interviewee 5

“We use them a lot, yes it is frustrating, but what can you do”.

Referrer interviewee 3

Access to the multidisciplinary team is central in the planning arrangements for discharge. Certain elements of the multidisciplinary team can have a time-delay, but the carers are fundamental to the safety of the patient being discharged home and would have to be in place before there were any agreement for discharge. Equally, to enable a patient to remain at home, carer support and equipment are crucial to maintain patient safety.

I remember once, it was really complicated, xxx didn't want to go into hospital, took most of the day, first getting the GP to visit, then I rang xxx. Did a joint visit, no carers no choice but to send them in...needed a commode and hoist another time, couldn't get them again admitted, such a shame, get it right and its great.”

Referrer interviewee 1

Communication was a key factor in enhancing acute staff discharge planning. Staff felt confident that everything required for the patient would be in place before the patient was discharged. The main benefit was that there would be no waiting list for patients requiring additional therapy support. There was continuity of care and therapy input started in hospital would be continued on discharge. This was the best possible outcome for the patient, because their care plan followed them home without disruption or delay.

It is possible to illustrate the differences between referring into the intermediate care service and traditional routes. Figure 4.14 demonstrates this by using the patient's journey. Discharge planning is a process and not an isolated event. It has to be planned from the earliest opportunity, ensuring that patients and their carers understand and are able to contribute to the care planning decisions (DoH 2003e).

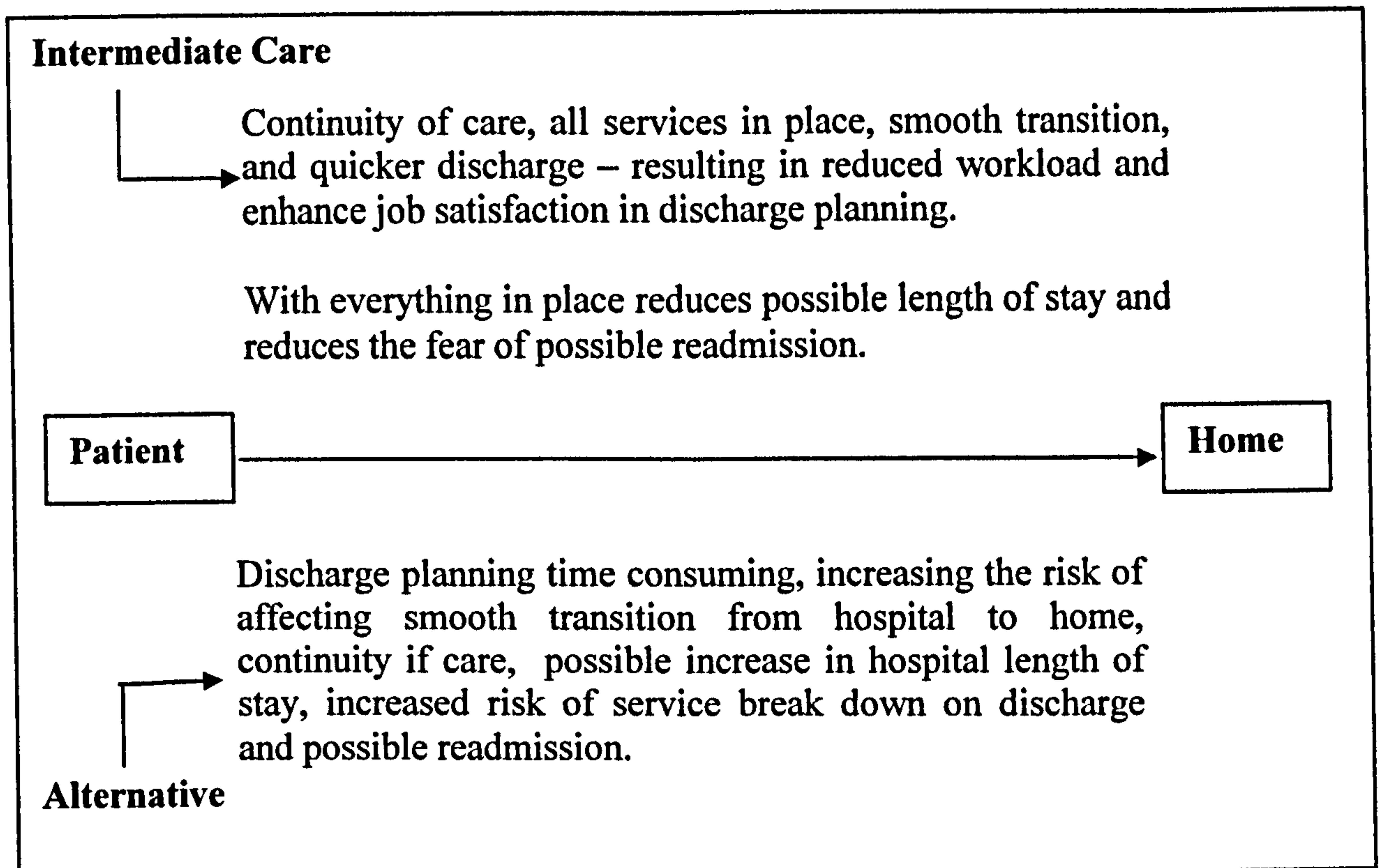


Figure 4.14: Referrer interviews - patient time-line

If acute staffs are under pressure due to their workload, then there are risks that the best optimum outcome for the patient could be put at risk. The referrer interviewees stated that sometimes they had to send a fax or leave a message on an answer phone when making a referral to another agency, they did not always know if that referral was activated or when services would start. There is enough evidence to state that effective discharge planning avoids unnecessary hospital readmissions and ensures good clinical outcomes for patients (DoH 2003e). The referrers in this study clearly supported this view point.

The referrer interviews have been a rich source of information. It has been possible to summarise and explore the data for consistency and patterns in the text. There is clearly a relationship and interaction between those involved in receiving and delivering intermediate care. The referrers had confidence and trust in the intermediate care service. The main benefit was that care started in hospital

continued when the patient was discharged home. This was felt to benefit the patient's recovery, reduce the risks of readmission and aided effective discharge planning.

4.7 Chapter Summary

This chapter has presented and reported the results of this study in detail. The results have been presented to reflect the study's aims and objectives. The length of this chapter demonstrates the volume and complexity of information generated by the study's design as outlined in chapter three. Chapter five summarises and discusses the results.

CHAPTER FIVE SUMMARY AND DISCUSSION

This is the final chapter of the thesis. It starts with a brief introduction, reconfirms the research aims and rationalises the need for the study before discussing the results. The research aims guide the discussion section. The second half of the discussion section triangulates the results to assist in their interpretation. The researcher makes retrospective considerations and appraises the study design. The relationship of this study to previous intermediate care research studies is considered and suggestions for additional research options made. The chapter then closes with a final overview and concludes the study.

5.1 Introduction

The purpose of this study was to ascertain whether an intermediate care episode could be effective in enhancing an individual's independence, quality of life and result in reducing dependency on future care services. It endeavoured to examine beyond what was visible and to acknowledge the true concepts and constraints of an intermediate care service from its nucleus to external and internal influences. The intentions were to use the data accumulated to un-pick the multi-faceted nature of intermediate care and to examine the labyrinth of human experiences as people lived and interacted within their own social world. The researcher acknowledges that this is a small study and that the study evaluated an intermediate care service within a local context, within a specific time and situation. However, the wealth of data and information generated will inform and support future exploration and will enrich the current intermediate care knowledge base.

The researcher purposefully chose the method of exploration for a number of reasons. Previous large-scale studies had only evaluated specific elements of what contributes to an intermediate care service. The researchers in these large-scale studies found difficulty in achieving their aims and objectives. They found that intermediate care was an extremely difficult service to evaluate due to its complex structure (Institute of Health Sciences and Public Health Research 2005, Green et al 2005, Barton et al 2006, Wade 2004, Martin et al 2004, Stevenson & Spencer 2004). The difficulty experienced in previous studies further supports the rationale for undertaking a small-scale comprehensive study. This researcher would argue that undertaking a comprehensive, all-inclusive and smaller study is more representative of what contributes an intermediate service.

To address the concerns and difficulties experienced in previous studies the researcher chose to use the patient's journey as its vehicle of discovery. The review of the patient's journey involved a microscopic analysis between two defined points in time. Between these two points, the analysis included the patient's experience prior to accessing the intermediate care service, their experience on receipt of the service, post intermediate care and follow up at twenty-eight days and six months. The analysis drew on the collective examination of all elements, influences and experiences during the patient's journey as illustrated in figure 3.3.

The patient's journey has been used in the nursing literature to describe different care pathways. A care pathway is a multidisciplinary outline of anticipated care for a patient with a similar diagnosis or set of symptoms. The pathway specifies the interventions required for the patient to progress during their care intervention (De Bleser et al 2006). Care pathways are used to ensure that the quality of care is

delivered to the patient in a consistent and efficient way (Griffith 2007). There are many examples of care pathways in the literature, for example a 'burns' care pathway (Dooley & White 2003), a 'care of the dying' care pathway (Ellershaw & Murphy 2005), a 'mental health' care pathway (Hall & Howard 2006) and a 'cataract' care pathway, a 'hip replacement care pathway' and a 'knee arthroscopy' care pathway (Smith & Ross 2004).

Using the patient's experience as the key driver has assisted the researcher to examine service effectiveness in the broadest sense. Other contributing factors were included to aid exploration and these included carer, the intermediate care staff and referrer's opinions and aspirations. This study used an ambitious approach, an approach that has not been used before to explore an intermediate care service. As discussed in chapter one (section 1.7). Many studies had looked at singular outcomes, but none had used the patient's journey as their method of exploration and discovery. To assist in achieving the aims of the study the researcher focused on a mixture of raw data, including individual experiences and perceptions. This cross analysis approach allowed further exploration of a very complex subject area and harnessed a number of quantitative and qualitative investigative approaches.

5.2 Statement of the Problem

Earlier research studies had shown that intermediate care is a complex and a difficult service to evaluate (Martin et al 2004, Wade 2004). Many research studies had addressed the complexity of intermediate care by evaluating specific areas such as patient outcome, inpatient versus early discharge or cost effectiveness (Richards et al 1998, Rudd et al 1998, Shepperd et al 1998, Barton et al 2006). However, the

purpose of this study was to undertake a more comprehensive and all-inclusive examination of an intermediate care service and to see whether an intermediate care intervention could enhance an older person's independence, quality of life and reduce dependency on future care services.

To achieve this very ambitious goal, the researcher set five key aims (section 3.2). The five aims related to specific influencing factors during the patient's journey. The first aim was to ascertain what factors influenced the care and outcome for individuals who were in receipt of an intermediate care intervention. Patient outcome is an extremely important element to explore, especially if a study is looking at effectiveness in the broadest sense. The outcome of any intervention relates to the effectiveness of the activities in relation to the achievements of the intended goal (Bowling 2002). Many factors would influence the outcome. The factors explored in this study included the type of referral into the service, diagnosis, length of stay and destination pre and post intermediate care intervention. The patient's personal and social circumstances were also included to assist in understanding how they influenced patient outcome. To further address the complexity of dependency the level of social care was explored by comparing the level of social care the individual received prior to admission, during the intermediate care intervention and the level of re-provision on discharge/transfer from the service.

The examination of the level of social care an individual received was an extremely important element to review in this study for a number of reasons. The inherited economic pressure of the 1980's had influenced government policy and influenced how health care would be delivered in the future. The result was a need to reduce public expenditure and to reallocate scarce resources. The increasing older

population meant that any potential increase might not be maintainable long-term (Spurgeon 1991, Allsop 1995, Ham 1996, Office of Population Censuses and Surveys 2001). In response, government policy advocated services to prevent or delay long-term dependency, thus reducing the demand and pressure on services and resources (DoH 2000a, DoH 2000b, DoH 2001, DoH 2001a). The changing balance of power within the NHS and the strengthening position of primary care, led to a need for commissioners of services to look at alternative patterns of care for the patient focusing on maximising independence and facilitating re-enablement. This changing balance inadvertently increased pressure on already existing scarce resources.

The second aim was to identify whether there was a change in the quality of life of a patient following an intermediate care intervention. Quality of life is a broader measure of outcome. Any patient treatment or intervention needs to be evaluated to see whether it has led to a change in a person's emotional, social, psychological or physical wellbeing. One of the key challenges for the researcher was to establish how to measure an individual's quality of life and to identify whether there was a change (positively or negatively). Quality of life is not easily measured (Rapley 2003). A number of quality of life tools were scrutinized to examine their appropriateness for this study. It was felt that in isolation the effective use of assessment and goal setting by the intermediate care staff would not be adequate to claim an improvement in a patient's quality of life. Additional exploration was required and this involved implementing the SF-8 quality of life tool to compare perceptions of quality of life prior to admission and on discharge/transfer from the service. The SF-8 had been used successfully in other studies, but not to evaluate the effectiveness of an intermediate care intervention (Ware et al 2001).

The third aim was to ascertain if there was a change in a patient's functional ability following an intermediate care intervention. Measuring a patient's functional ability was a method of assessing change. When measuring a change in functional ability the effectiveness of the tool had to be reliable and consistent (Bond et al 1994). There are many methodological techniques available to measure functional change. To measure change in functional ability of an individual, the researcher chose a validated functional ability tool. A number of functional ability tools were scrutinized (figure 3.6). The assessment process compared functional ability prior to admission and on discharge/transfer from the service. One of the major difficulties in using a functional ability tool is that people may react differently to apparently similar levels of physical impairment depending on their own expectations, priorities, goals and social networks. Equally, individual responses will be viewed differently depending on people's viewpoints on how well others are performing (Bowling 2005). All these factors were taken into consideration in the planning stages, the implementation and analysis stages of this study. The Barthel has been used successfully in previous intermediate care studies (Barker 2002).

The fourth aim wanted to understand the experiences of the patient and their carer(s) as they received care and support from the intermediate care service. Areas explored included the transition prior to accessing the service, during the intervention and future needs and aspirations. The method used for this element of the study was self-reporting. Self-reporting is the most widely used data collection method (Polit & Beck 2004). Self-reported data can be gathered orally as in an interview or in writing as in a questionnaire. The approach is based on the assumption that the best way to understand the influences on a person's life is for that person to tell their own story. To support this process and to explore other influencing factors a discharge/transfer

questionnaire was designed and implemented. The questionnaires were distributed to all participating patients when they left the service. To obtain a better understanding of the patient's prior experience, including the influence of the intermediate care service and future aspirations thirty-five patients were selected and interviewed. To obtain a better understanding of the carer's prior experience, including the influence of the intermediate care service and future aspirations five carers were selected and interviewed. The interview process generated vast amounts of data.

The fifth aim wanted to explore the experiences and expectations of staff groups. The staff groups that were explored included the intermediate care staff and those staff groups who referred into the intermediate care service. The intention in this aim was to ensure that there was multi-agency/disciplinary representation to explore personal experience and aspirations. One individual from the ten disciplines representing the intermediate care service in this study (PCT and Local Authority) were selected and interviewed (band six nurse, band five nurse, occupational therapist, physiotherapist, dietician, speech & language therapist, assessment officer, care coordinator, senior care officer, home carer). To obtain a better understanding why people referred a patient to the intermediate care service, five individuals who had referred individuals were selected and interviewed (acute hospital, community hospital, GP, social services, district nursing). The best method to understand how professionals interact with the intermediate care service is to ask them.

The study's design had to be robust in order to support the study's five aims. The researcher had not initially anticipated how extensive this study would become, though on reflection, it should have been possible to anticipate some of this from the literature review (chapter one) and the experience of earlier researchers. The research design in this study had to examine the topic area (intermediate care) in far greater

depth than had been achieved before and this could not be undertaken using a singular research design. The researcher acknowledges that all tools have their limitations in either the content or method of application. When choosing a tool there were a number of key factors to take into consideration and these include reliability & validity, time, training, cost, method, content, scoring, the need to be unobtrusive and the ability to detect change (Bowling 2005).

5.3 Discussion of the Results

This section will summarise the results in relation to the study's aims. Section 5.3.1 will draw together and triangulate the results in a more cohesive manner. The purpose of the study was to explore whether an intermediate care service could enhance an older person's independence, quality of life and reduce dependency on future care services. The collective analysis clearly showed that the intermediate care intervention did achieve this outcome for the patient and their carer(s). The intermediate care intervention did enhance people's quality of life and reduce dependency on future care services. This is a bold statement and to support this statement the evidence is presented below. The five aims of this study were comprehensive and the resulting objectives gathered vast amounts of data.

The first aim of this study was to determine whether levels of dependency were reduced by receiving the care and support from the intermediate care service. This is a problematic question because there are so many uncontrollable factors that may influence levels of dependency. To address this, the study focused on a number of different variables. The variables included the patient's diagnosis influence, age,

gender, location, social care provision and to monitor any change in the patient's circumstances at set intervals during the patient's journey (figure 3.3).

The diagnosis recorded for this study related to the medical reason for the patient being referred into the intermediate care service. The referrer at point of making a referral into the intermediate care service made the diagnosis decision. The patient's diagnosis was recorded to ascertain if their length of stay on the intermediate care service was influenced by their diagnosis. All patients had multiple medical problems. Their access diagnosis into the intermediate care service did not influence their outcome. Diagnosis was relevant, but alone it did not influence service outcome. Patient diagnosis did not influence the intensity of the support received from the intermediate care service. Patient outcome had numerous influencing factors, including psychological and behaviour influences, trust and faith in the intermediate care team, environmental constraints and physical implications (disability).

The demographic profile of patients in this study inadvertently mirrored that of the target population (all participants in receipt of the intermediate care service) in terms of gender, and the reason for referral, whether to prevent an admission into an acute hospital or to enable early discharges from an acute hospital. This made the study's results more robust and representative of the target population. Representation of the target population (the intermediate care service) is more prudent for quantitative researchers. Qualitative researchers prefer a more purposeful approach to demonstrating representation (Polit & Beck 2004). However, the study's results were not just representative of the local area. The gender demographics mirrored the national picture between male and female split. The relationship between local and

national representation in this study is significant. It will assist future researchers to transfer elements of the research design into their own research studies and secondly it allows comparisons to other potential study areas and previous research studies.

In isolation, the statistical analysis showed that the variables such as age and gender did not influence patient outcome. However, there were clear relationships between experience and outcome. A positive experience allowed a certain level of control for the patient. This sense of control was very important, especially when circumstances were reducing or taking away individuals mechanism to be in command of their own lives and destiny. Something very simple could have the greatest impact. This simplicity could be something as insignificant as being able to make a cup of tea or being able to do a button up. As supported by Fallowfield below, patients in this study did struggle and battled to maintain the basic skills of daily living in order to maintain a level of normality and independence and for many this transition from norm was difficult to manage at times.

“An ounce of illness is felt more than a hundredweight of health”.

An Old Dutch proverb quoted in Fallowfield (1990) page 26

During the patient’s journey, there were defined stepping-stones or hurdles to negotiate for the patient to enable them to cope with their lifestyle crisis and periods of ill health. To allow the patient to negotiate these, there were periods of ‘transition’. Wade (2004, page 211) defines a transition as being “a passage from one life phase, condition or status to another and as a process that forms a bridge from one reality that has been disrupted to a newly constructed or surfacing reality”. Transition when considering quality of life and care outcome related to helping the patient to move on (figure 5.1). The intermediate care intervention and support

facilitated such transition to enable the patient to come to terms with some significant changes in their lifestyles and to facilitate plans for the future when their previous lifestyle had been completely shattered. This concept of supporting individuals through periods of transition is discussed further in section 5.3.1. Helping an individual psychologically and practically to deal with such difficult life changes is crucial to the success of an intermediate care intervention.

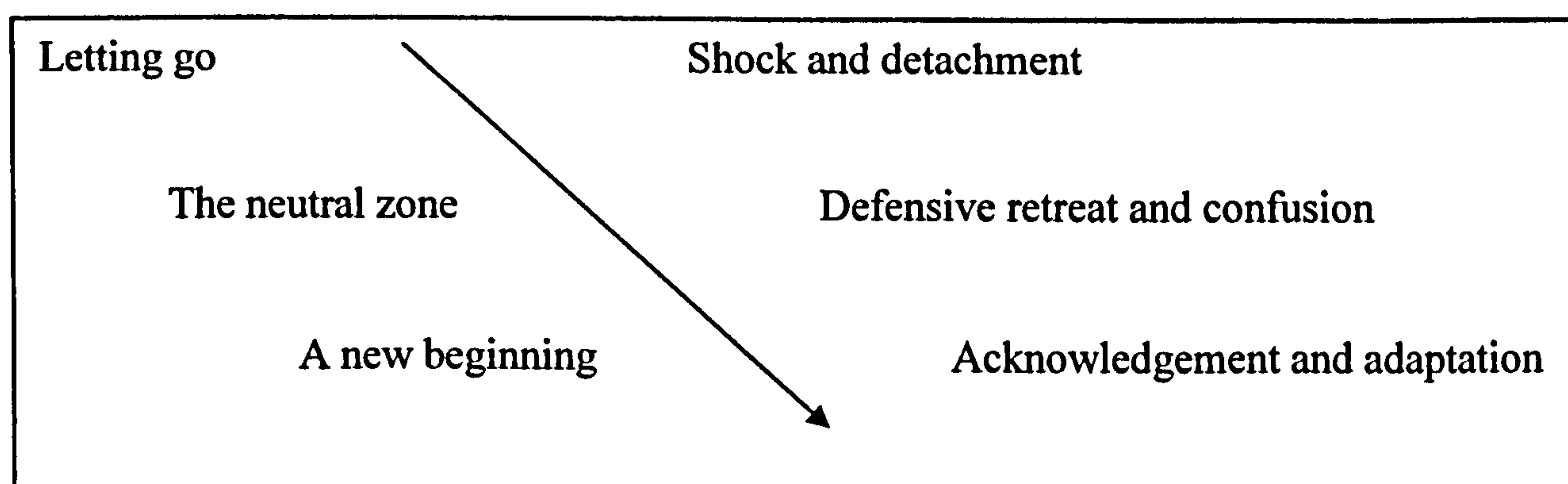


Figure 5.1: Stages of transition (adapted from Wade 2004, page 212)

Intermediate care government policy directives advocates six-week's intensive support to maintain people at home (DoH 2001, Wade 2004). The majority of patients reviewed at twenty-eight days and six months were still residing at home with little change since they left the service. Effective rehabilitation from the service appears to have equal impact for those who were suffering from the consequences of an acute episode, to those with a chronic problem or a relapse. Four patients had returned to the care of the intermediate care service for a second time. They felt reassured that the care they were receiving was tailored to their precise individual needs. At six months a total of six patients had died since leaving the intermediate care service. This was an anticipated outcome, although there is evidence of increasing life expectancy in the twenty-first century (Bond et al 1994), the majority

of patients were in their latter years and had a mode age range of 86 years and the eldest 101.

This study has shown that the patient's social care provision reduced significantly when they left the intermediate care service (reduction of 268 hours in total). The level of support did vary considerably between each patient receiving care. This variation was between one call a week to four calls a day. The majority of patients did not require support on leaving the service (47.8%). From a cost analysis point of view, this reduction is very significant. Not just for providers of care services, but for the patient themselves. Many individuals have to finance their own social care needs. There was no evidence to suggest that any reduction in social care provision had been replaced by an increase in informal care (e.g. family).

Informal carers do provide a significant amount of care and the level of responsibility can have an effect on the carer(s) coping mechanisms. The majority of patients did remain in their own home following the intermediate care intervention. Government policy is to reduce the reliance on long-term continuing care needs (Enderby & Stevenson 2000). Cost, available resources and future demand from an aging population are some of the influencing factors driving government policy (Middleton et al 2007). There is enough evidence to suggest that older people want to remain at home (Petch 2003). Older people want to remain in familiar territory and to be surrounded by their own personal belongings, friends and family (Bond et al 1994). On reflection, the reducing dependency and enhancing independence element of this study has met its purpose. There is clear evidence that dependency was reduced and that levels of independence were increased.

The second aim was to ascertain whether there was a change in a patient's quality of life. This aim was achieved by comparing perceptions of quality of life prior to admission and on transfer from the service. This complex subject area was addressed by implementing a validated quality of life tool (SF-8). Quality of life is a complex area to review, but without it, the robustness of this study would have been put at risk. As with any tool, care was needed in the interpretation and answering of questions. Within the constraints of this study, there were some discussion and observed differences of opinions on what contributes quality and its influence on individuals.

The SF-8 questionnaire is designed to be self-completing. Some of the patients involved in this study did not have the vision or dexterity to complete the form themselves. If a family member was not able to assist in the completion, then one of the intermediate care staff helped the patient by reading out the questions. Although the English version was used, it was felt that some of the participants did not easily understand some of the wording. The interruption of the wording can jeopardise the robustness of the results (Bryman 2001). Staff did report that they felt uncomfortable asking someone about their emotional problems (Q7 - anxious, depressed, irritable). The issue is whether the patient considered these concepts separately from a general acceptance or expectation of what they would experience when they were unwell. Clinically it is difficult to distinguish depression type symptoms from those of illness or disability (Lliffe & Drennan 2000). To admit feelings of being depressed could imply early signs of having a mental health problem. Admitting to a mental health problem could be a stigma or a label. This study was dealing with a distinct population group. An assumption made was whether this generation group would be

familiar and open to this type of questioning and would answer the question without bias.

The construction of some of the questions were perplexing. For example, question 6 asked the patient to rate two separate things with one score. They were asked to rate how much did their physical health or emotional problems limit their usual social activities with family or friends. There is a vast difference between physical health and emotional health. An assumption made by the researcher, is that the patient is more likely to score their physical health than their emotional health. It was felt that the mixing of domains did affect the robustness of the scores. If the scores had not been mixed it was felt that the relationship between start and end scores would have been stronger. The patient did not easily admit to emotional problems during the interviews. It was considered that this generation of people were not converse to discussing their emotional health openly. Interpretation of the results is a problem that needs to be acknowledged. Equally, the researcher acknowledges that there is a risk when using a closed question questionnaire. Closed question questionnaires do not allow for further comment and their scoring can be rigid. If the question uses language that is not familiar or appears too complex, then there is a greater risk of error (Bowling 2004).

These negative comments do not suggest that the tool was not supportive of the study's aim. The SF-8 in this study has added another piece of the jigsaw to assist the researcher to explore the complex nature of an intermediate care service. The collective results of the questionnaire did show a positive change in patient's quality of life. Some of the questions in isolation did appear to have a weak relationship. On reflection, the quality of life element of this study has met its purpose. The eight

domains of the SF-8 questionnaire appeared appropriate for this defined population group and the four-week recall was suitable for this study's requirements. An opportunity missed was to repeat the questionnaire for a third time post discharge/transfer from the service at twenty-eight days. This would have allowed further exploration of the patient's quality of life at three defined intervals - pre, during and post.

The third aim was to ascertain if there was a change in functional ability. This was achieved by comparing functional ability prior to admission and on transfer from the service. This complex subject area was addressed by using a validated functional ability tool (the Barthel). The measurement of functional ability is an important element of daily living when reviewing independence. As discussed in chapter three, there are limitations to the Barthel and these were acknowledged. For staff working in the intermediate care service, the Barthel was a quick and easy tool to complete. The main positive aspect of the tool is that it was designed to measure a function before and after an intervention and/or treatment and this flexibility made it appropriate for this study's requirements. It has been criticised in the literature for its potential inconsistency and its limited ability to describe the full range of changes in functional ability (Bowling 2005). One criticism is that it omits other tasks of daily living such as cleaning, cooking and shopping. To address this concern, space was made available on the data collection form for staff to add any additional comments. In isolation, the tool can be beneficial to measure a limited range of functional ability tasks. When the tool is triangulated against other outcome measures then it comes much more robust and effective.

On reflection, the functional ability element of this study has met its purpose. The tool was simple to implement and demonstrated an effective outcome. It is possible

to confirm that there was a significant positive change in the patient's functional ability. Over all scores were significant. The assumption drawn was that there was a significant positive shift between their start score and their end score on leaving the service. There is an option to develop a tool that reflects and incorporates a more comprehensive overview of patient's functional ability. An opportunity missed in this study was to repeat the Barthel for a third time post discharge/transfer from the service at twenty-eight days. This would have allowed further exploration of patients functional ability at three defined intervals - pre, during and post discharge.

The fourth aim generated the most evidence in relation to the effectiveness of the intermediate care service. Exploring individual experiences and perceptions has allowed the triangulation of all the results. This was achieved by undertaking a number of semi-structured interviews and incorporating a discharge/transfer questionnaire. These methods were used to obtain a better understanding of the influence the intermediate care service had on individuals. This did not just include the patient, but their family and care network. There is an assumption that an outcome of intermediate care does improve an individual's quality of life, health and well-being (Wade 2004). Without a clear understanding of these three elements, it would be difficult to appreciate their underlying influence on the patient's journey. The difficulty in answering this assumption is whose opinion is being measured. As discussed in chapter two (section 2.2), there are differences between professionals and the patient. To understand the patient's journey the best-placed person is the patient. The challenge then comes in the interpretation of the patient's experience during their journey and at the same time interlinking these with those individuals who interact with the patient during this time (e.g. carers and professionals).

The research interview did allow a verbal interaction between the researcher and the participant. It did allow further exploration and opportunities to change the wording, but not the meaning. The researcher recognises that not every word has the same meaning to every participant and not everyone uses the same vocabulary (Barriball & While 1994). The interview schedule allowed the interviewer to add additional questions to explore or to probe more if the participant had been vague in their answer. The difficulty with this approach is maintaining the balance between standardisation and flexibility. The discharge/transfer questionnaire was included to allow the patient to express what was important to them in addition to the other data collection processes. It allowed them to add free text to express personal feelings and experiences. The analysis of the discharge/transfer questionnaire yielded more information than initially anticipated from its basic design.

For the patient there was a desire for empowerment to influence and control their own destiny to the best of their ability and to make informed choices. The patient's personal view did not always reflect the therapeutic view. Their desired outcomes were not always realistic and some of them had difficulty accepting the truth about what they could do or would be able to do in the future. When undertaking rehabilitation there is an element of risk taking, the most important thing is that patient rehabilitation goals are realistic and achievable. There is a difference between traditional care and the rehabilitation care approach (Wade 2004). Patient expectation and staff expectations did not always match and there were differences of opinion. The key was to ensure that there were effective two-way communication between the patient, their carer(s) and the intermediate care staff. The patient clearly wanted to be involved and included in all decision-making processes and future planning.

An important area raised by the patient was a fear of being a burden. The patient did not want to be a burden themselves on family and/or friends (chapter 4, section 4.5.2). For some individuals it was hard to accept help when they had been so independent before their crisis and the intervention of the intermediate care service. There was a strong feeling or fear of being a burden on family and/or neighbours. This feeling of uncertainty increased their fear for the future. There was clear evidence that this burden although significant was reduced with the support they received from the intermediate care service. Even the support from the intermediate care service did not eliminate all anxieties. There is a wide research base looking at carer burden (Nolan et al 1990, Jenkins 2006), but patient burden appears to be non-existent in general nursing research. There is evidence of patients concerned about being a burden on families when diagnosed with a terminal illness or early stages of dementia, but not related to general health related interventions (www.Macmillan.org.uk / www.Alzheimers.org.uk).

The informal carer (e.g. family, friend) did need support and assistance in their role. Most often, the carer is launched into a new role without training or support mechanisms. For the carer life can become extremely difficult as they struggle to manage the variety of demands placed upon them (Jenkins 2006). The carer research base has highlighted the vulnerability of informal carers (Gilleard 1984, Bond 1994, Jenkins 2006). There is no reasonable doubt that caring for someone will have adverse effects on important domains of carer's lives (Nolan et al 1990). One of the areas that the local research ethics committee wanted to be considered in this study was whether carer burden was reduced. The difficulty has been defining what carer burden is. A lay definition of a burden is carrying a heavy load, an oppressive duty or obligation (Collins 1993). It is something that is difficult to measure, especially when

family or spouses consider the caring responsibility as a duty and not a burden. The question asked of carers should be 'what elements of daily life are influenced by their caring responsibilities and do they see them as a burden?' From the interview transcripts, there were different opinions to what contributed a burden and many did not see their responsibility as a burden. There were differences between physical burden and mental coping mechanisms to maintain their carer role.

The support mechanisms clearly made a difference in how carers managed, but there were still uncertainties about the future. This is an important point to make, because although support mechanisms were put in place to empower the carer and reduce physical burden. Their actual level of responsibility to the person they were caring for did not change greatly. There was a feeling of reassurance by families when they knew that their relative was supported. This was especially important for families who lived away or had other family or work commitments that influenced the amount of time they could give to support their relative.

The fifth aim was to explore the experience and expectations of staff groups, including the intermediate care staff and those staff groups who refer into the intermediate care service. It was not only the patient and the carer that felt empowered. Staff working in the service also experienced an element of empowerment and job satisfaction. The experience of working in a multi-agency/disciplinary team was extremely positive. This confidence of working within an integrated team approach had slowly developed over a period of time (2-3 years for some staff). It clearly took time to build up trust and to break down professional and cultural boundaries and barriers. There was evidence of staff groups letting go of traditional professional boundaries. This was achieved by listening to and learning

from each other. There were challenges, but the sharing of information, knowledge and resources balanced most concerns. The sharing of patient assessments across professional groups and organisations reduced duplication of assessment for the patient and saved valuable time for staff members. This resulted in a shared pathway of care and continuity of care for the patient.

One of the difficulties experienced by the intermediate care staff was accessing independent/private care agency staff to re-provide a social care package for the patient who was ready to leave the intermediate care service. This limitation was due to a low local resource set against high demand. Difficulties in accessing care staff did affect some of the discharge/transfer arrangements. A small number of patients were delayed from leaving the intermediate care service. If the intermediate care service becomes blocked, then patients will be prevented or delayed from accessing the intermediate care service. This might result in people being admitted into an acute hospital inappropriately because the resources were not available in the community or remaining in an acute hospital longer than necessary. When demand outstretches available resources, then capacity within the intermediate care service will be a problem for staff.

Individuals referring into the intermediate care service commented on continuity of care, smooth transition, and easier discharge planning. There was referrer confidence that everything would be in place for the patient on discharge/transfer from their care. The referrer felt confident that the patient would have a better opportunity for recovery, because of the intensity and continuity of care the patient would receive from the intermediate care service. Care plans started in hospital could be transferred with the patient when they left hospital. There was no delay in delivering

care between care providers. This smooth transition of care meant that rehabilitation did not stop, but continued in primary care. Equally what was important to referrers was two-way communication because this gave referrers confidence with their own discharge planning.

The intermediate care staff kept referrers well informed of discharge arrangements. Referring into other traditional services was by letter, fax or leaving a message on an answer phone. The referrers did not always have the opportunity to speak to someone in person. There were no guarantees that the referral had been received or acted upon. They were not always aware when services would start after the patient had left their care. Some referral options had waiting lists (therapy) and any delay on discharge from hospital could facilitate the patient deteriorating with their rehabilitation programme. Some staff felt this was a main contributing factor for some of their re-admissions and one of the main reasons why the patient might remain in hospital longer than necessary. Continuity of care was an influencing factor for those in hospital, but for those remaining in the community meant that services were activated immediately thus ensuring that the patient could remain at home. This section of the chapter endeavoured to present an overview of the results as presented in chapter four. The next section (section 5.3.1) discusses the results and implications of the analysis in more detail by triangulating the results.

5.3.1 The Results triangulated

The previous section presented a general overview of the results (section 5.3). This section of the chapter draws together, triangulates the collective results, and discusses the implications of the analysis in more detail. The strength of this study

has been the integration and triangulation of research approaches and tools. The intent of the researcher was to use this approach to strengthen the study's method of exploration. The investigation from different perspectives improved validity and overcame biases inherent in a single perspective (Holloway 1997). The combining of designs and methods from both quantitative and qualitative paradigms is so that each complements the other to benefit or contribute to an understanding of the whole (DePoy & Gitlin 1994). The 'whole' in this study relates to the patient's journey.

This study has explored a number of different variables to address the purpose of this study and to answer the study's aims. The analysis of some of these variables had illustrated a weak relationship, where others have been extremely strong. In isolation, those with a weak relationship might appear insignificant, but when viewed collectively a better understanding of their influence is achieved. The researcher acknowledges that each variable must be given its due recognition and valued for its unique contribution to this study. If individual results were dismissed as insignificant in the initial analysis process, then the richness of the data and their contribution to an overall understanding in how an intermediate care service could influence patient outcome would have been lost.

For example, the patient living arrangements did not appear to influence outcome. However, government policy would consider the outcome in this study as significant. Maintaining an individual in their own home reduces reliance on future scarce twenty-four hour residential care resources. For the patient the home environment can be extremely significant, the home environment can become a frightening place. Familiar surroundings can become obstacles and even affect coping mechanisms to remain in the environment of their choice. The intermediate care staff implemented

different mechanisms and resources to reduce the impact on the environment for the patient. For example, equipment and/or social care were put in place to enable the patient to remain at home. Much of the apprehension experienced by the patient and carer(s) related to environmental issues. Fears related to concerns of them remaining in their own home. Moving home is a stressful experience for anyone, but when a move is imposed against that individuals own choice, then a negative enforced decision could have a negative influence on any service intervention outcome. The patient discharge/transfer questionnaire and the interview transcripts all highlighted the important of environmental influences on the patient being able to remain at home. This outcome was irrespective of age or gender.

The two variables of age and gender separately were not particularly significant, because they did not appear to influence the outcome of the intermediate care service. A review of age ranges is significant because there is evidence that disability increases with age and increasing disability could affect an intermediate care outcome. An important feature of human ageing is that there is a greater longevity of women than men (Bond et al 1994). The majority of patients accessing this study were in their latter years (aged over 80 years) and female, and all had degrees of disability. Gender is significant, individuals lived experiences will influence how they are able to adapt to changing circumstances or demands placed upon them. One of the participants had recently lost his wife. His wife had never had paid employment. His wife was a housewife and had always carried out the cooking and domestic tasks at home. This gentleman did not know how to cook. However, to keep this person at home, mechanisms can be put into place to reduce the impact of his lived experiences. There are options to address dilemmas such as these. A person can be taught how to cook simple meals or they could have pre-cooked meals

delivered ready to eat (e.g. meals on wheels), frozen meals to microwave or a carer to visit to prepare meals.

What is apparent from the data is that in drawing together the experiences and outcomes during the patient's journey it has become evident that many different things influence that journey as illustrated in figure 5.2.

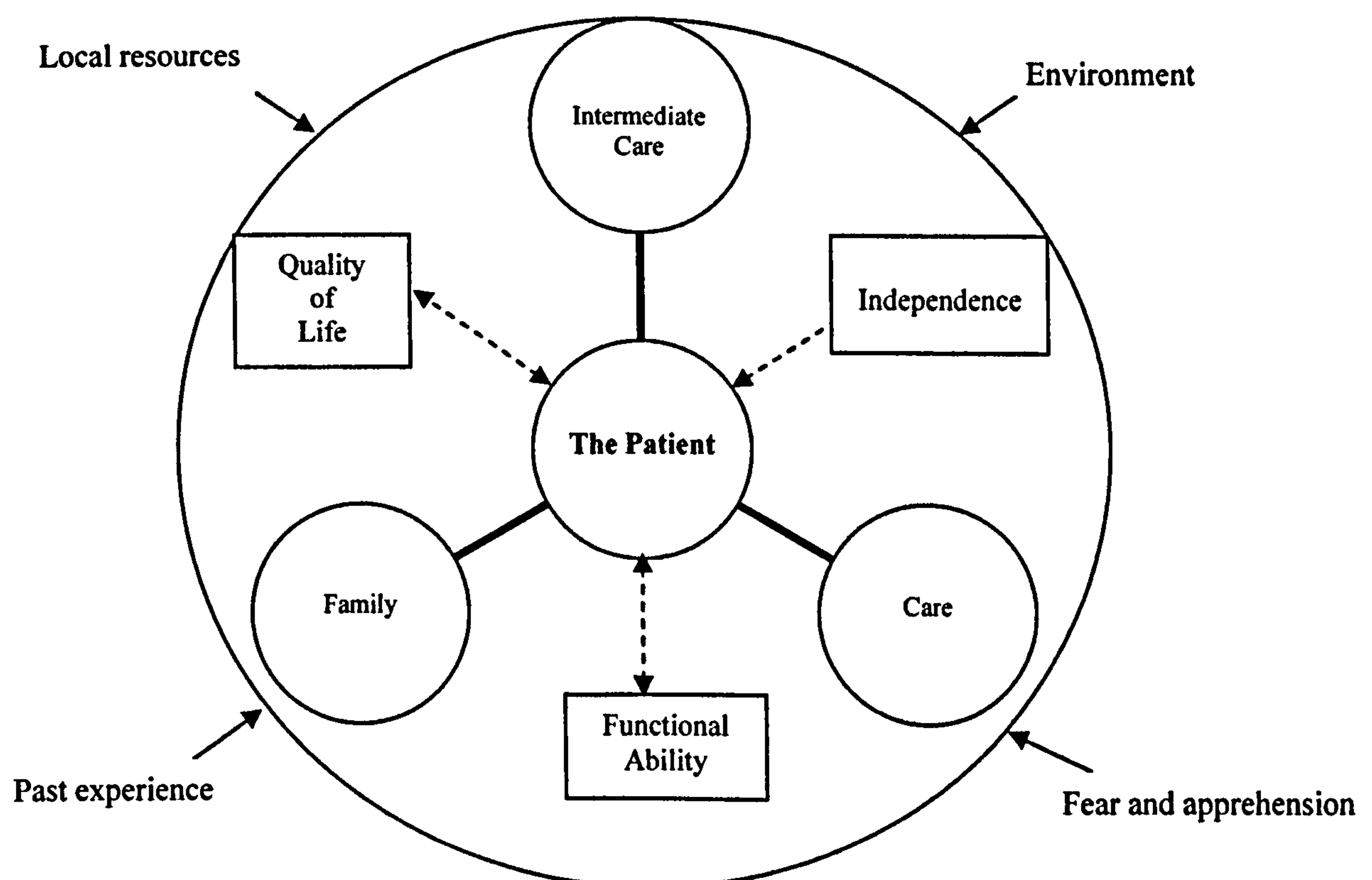


Figure 5.2: Patient and intermediate care influencing factors

The large outer cycle represents the intermediate care service as an encapsulating entity of protection and support. The completeness of the continual circle without any breaks ensures that the intermediate care service holds everything together, even when external demands pressing against it are not controlled. The overarching outcome for the patient(s) was an element of empowerment, control and influence over their own life. Careful negotiation and the support of the intermediate care service achieved this outcome for the patient. Mechanisms can be put in place to

support people and their carer(s) to achieve a desired outcome through self-determination. Self-determination is an element of measuring quality of life defined within a social well-being model (Renwick et al 1996).

Social well-being has three core elements (self-determination, democratisation and equality). Through self-determination, individuals attain well-being when they are able to achieve their aspirations for themselves and the choices they make are made autonomously and without coercion (Renwick et al 1996). The intermediate care service staff enabled the patient to make those choices. It was the nurturing and support of the patient and their families that allowed the patient to develop capacity and to plan for the future.

When the data captured were drawn together, it was clear from all the interview transcripts, the discharge/transfer questionnaire, questioning at twenty-eight weeks and six-months, that the intermediate care experience played a critical role in reducing the negative impact of the patient's initial crisis. There was evidence of decreased stress levels and negative influences on the patient's well-being. The patient was listened to and empowered to make choices. They were encouraged to participate in current and future care decisions. Despite the fear and apprehension for the future, they were given some control over themselves and their own situations. This sense of control was very important to the patient and their carer(s). The researcher acknowledges that people do react differently to apparently similar situations or events. This difference in reaction is influenced by the person's own expectations and priorities, past experience and social networks.

All participants interviewed acknowledged the struggles that the patient and carer(s) experienced prior to the crisis and to post discharge/transfer from the intermediate care service. Personal anticipations and aspirations were influenced by experience or knowledge, current well-being (health and disability influence), age, gender and home environment. They all wanted to seek recognition for themselves (democratisation). Democratisation is based upon the understanding that interdependence is inevitable and essential, it points to the importance of recognising, respecting and drawing on diverse points of view in decision making processes (Renwick et al 1996). The patient wanted to exercise greater control over the condition that was influencing their current situation. Staff wanted to ensure the best possible outcome for the patient. The carer(s) and family wanted the best for the patient. Support mechanisms could be put in place, but carer responsibility did not change significantly. The intermediate care staff, referrers and the patient family all felt obliged to do their best for the patient.

For the patient, barriers were reduced or removed. They received mutual respect and recognition by the intermediate care staff (equality). When in a crisis, the patient felt marginalised from what was normal to them. They could not hold their position in life or function as they wanted to. This change was influenced by their physical and mental well-being. Other influencing factors were environment, age, gender, family structure, support mechanisms already in place or absence, past experience or future aspirations. Although the patient's journey was similar in direction for all participants, people did have differing needs and requirements for their individual well-being. Individual well-being was defined as the extent of the gap between an individual's aspirations and the degree to which these aspirations are actually achieved (Herbert & Milsum 1990).

Individual aspirations can be a mixture of physical or emotional goals. In this study, some of the patient's rehabilitation goals shifted from restoration of function towards the notion of enhancing their quality of life. Patient's functional ability did improve significantly and this did enhance how they saw the world around them. However, this alone was inconsequential, because the majority of the patients just wanted independence and additional resources for example equipment and social care to enhance this. Equally, others felt duty bound to regain their independence without relying on others and this psychological and physiological drive equally affected their recovery. There is a thin line between crisis-incurred stress and clinical depression instigated by biological or psychological influences (Bond et al 1994). It is difficult to tell from the results in this study how these two distinct things affected patient outcome. Patients in the interviews found it difficult to talk about their emotional influences. Yet the quality of life questionnaire (SF-8) showed that these factors did affect their social activities to some degree. Patients in crisis, experiencing ill health or increased disability did experience increased stress levels and emotional problems. These negative thoughts did influence their fears for the future.

The fear for the future did appear to affect patient outcome even if there was a positive shift in their coping mechanisms compared to their initial crisis (need for the intermediate care service). This concern for the future was a general fear facilitated from having to leave the protection of intermediate care service. The protection of the intermediate care service gave the patient and carer(s) confidence. Much of the fear was related to the unknown, where as others had drawn their conclusion from prior knowledge of other mainstream services. An improvement in the patient's

quality of life and functional ability did not appear to dissolve these feelings of apprehension and fear for the future.

The success of the intermediate care experience for the patient was facilitated by a multitude of differing influences. These influences were initiated firstly, by those who referred the patient into the service and secondly, by the intermediate care staff working arrangements and interaction with each other. The patient and carer(s) had brought with them a number of aspirations and demands. These aspirations were individual to each person, but there were similarities. Although each person brought with them past experiences, individual personalities, differing support mechanisms and family structures, differing health and disability needs. The actual patient journey and direction of travel was the same for those leaving hospital or remaining in their own home (illustrated in figure 4.3 and figure 4.4). To make this transition successful there had to be a number of key constraints in place as illustrated in figure 5.3.

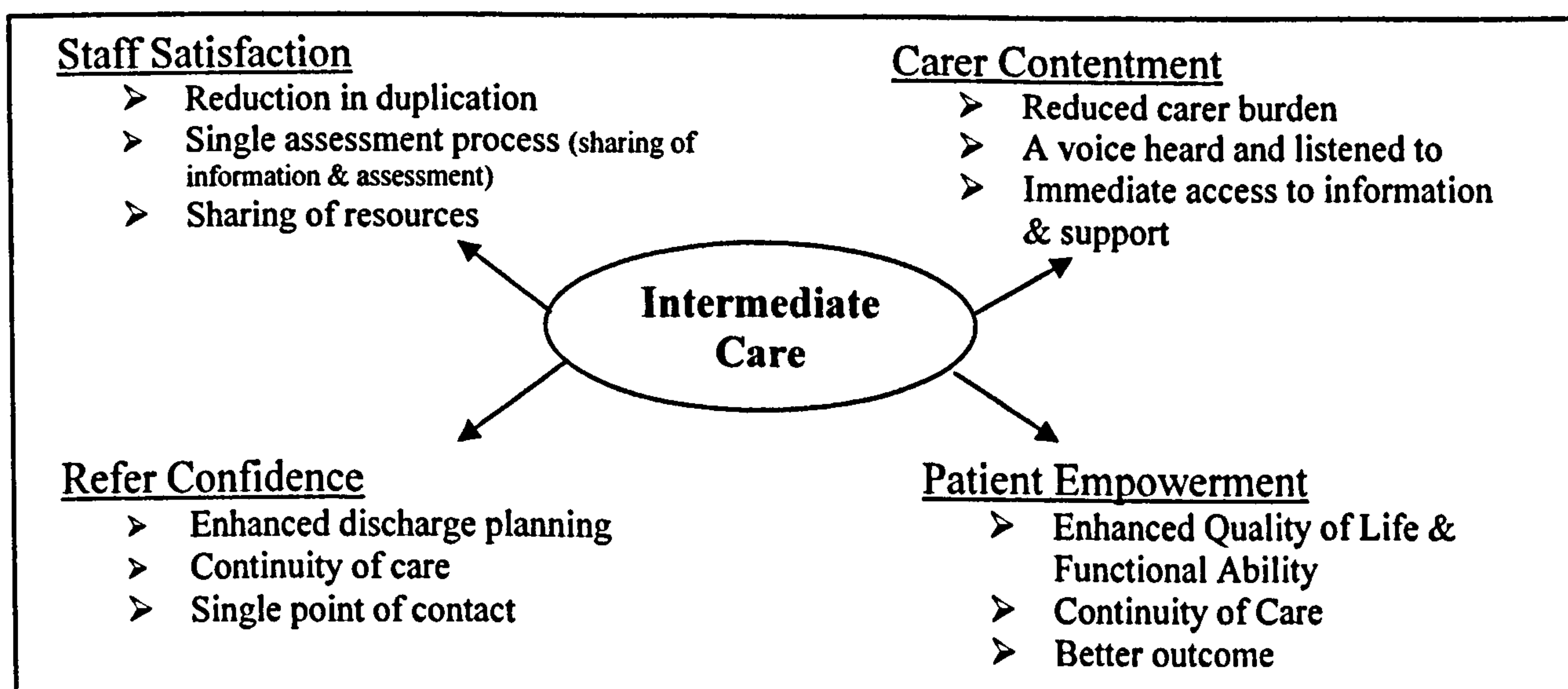


Figure 5.3: Intermediate care key constraints

In summary, patient empowerment resulted in enhancement and a better outcome. Carer(s) contentment resulted in enhanced coping mechanisms for their role. Staff satisfaction enhanced the effectiveness of the service delivered and refer confidence ensured that the patient was offered additional options and effective discharge planning.

The most important person is the individual receiving the service. Many internal and external influences will affect the impact of the intermediate care service on that patient. These influences will include past and current feelings, fears and relationships that they hold. When the patient was in crisis, they felt that they are not in control of events. One of the most important forms of self-perception is, of being in control of events (Bowling 2005). The patient's behaviour did influence events. The impact of the environment including physical, psychological or social features did affect patient outcome. These factors cannot be reviewed in isolation from each other. Fundamental to this is referrer confidence that the outcome is the best possible option for the patient. The inter-dynamics and working relationships of the intermediate care staff has to be taken into consideration. Carer(s) and family influence can have and did affect patient and staff confidence (intermediate care and referrer).

There was some evidence of conflict of interest. This conflict related to differences of opinion between the patient and/or the carer(s) and the intermediate care staff. Patient rehabilitation goals did not always reflect the intermediate care staff goals for the patient or carer(s) aspirations. Some patients had difficulty accepting the truth or reality about their current situation and potential for recovery. In rehabilitation, there is an element of unknown and risk taking. The key in this study was the inter-

relationship between the intermediate care staff and the patient and their carer(s). Goals set by the intermediate care staff and the patient had to be realistic and achievable to maintain trust and confidence. To achieve the desired outcome the patient and the intermediate care staff had to work in partnership and not hierarchical. Material or immaterial mechanisms were instigated to reduce or eliminate potential barriers in order to achieve patient goals. Material mechanisms might include equipment and immaterial might involve telephone support. The key to achieving harmony was effective two-way communication, continuity of care and honesty. It was the very multi-faceted nature and construction of the intermediate care service that has made the service effective and the collective support given to the patient and their carer(s). Partnership working, single assessment processes and dissolving professional/inter-agency cultural barriers have assisted in achieving the effectiveness of the intermediate care service.

In summary, the impact of lifestyle changes is significant for the patient and their carer(s) support structures and networks. Age and gender have been influencing factors, because people bring with them a number of expectations and perceptions facilitated by their lived experiences. What is fundamental to patient recovery is ensuring that the patient has the insight and ability to help themselves and the ability to recognise what is happening to them (Renwick et al 1996). The multidisciplinary and interdisciplinary approach of the intermediate care service collectively helped the individual to cope under difficult circumstances. This was achieved by introducing a range of mechanisms (material and psychological) to help them face the challenges presented before them. During the interviews, it was noted that people made rationalisations and were not always realistic to what had or was happening to

them. This was not just the patient, but in some instances, their carer(s) and family were in denial.

Using the patient's journey mapped the patient's life course. There were stages during their journey that were almost predictable reactions and at other times unpredictable. Individuals appeared to go through different stages of fear and apprehension at the beginning of their journey (before accessing the intermediate care service) and moved forward towards feelings of almost contentment & relief at the other end of their journey (on leaving the intermediate care service). This pattern of emotion is illustrated in figure 4.5. However, for those individuals who had previous personal experience or knowledge of standard mainstream care services, another step appeared to move them backwards towards a negative trough. This negativity had not been anticipated (figure 4.6). They expressed a fear or apprehension for the future. They were worried about themselves and the affect on their family or friends. They did not want to be a burden, they were worried that the care option for them would not be reliable or of a good quality.

To enable people to move forward, the intermediate care staff demonstrated that they had the skills and attributes to facilitate 'transition' for the patient, their carer(s) and family (figure 5.1). The staff showed empathy and demonstrated good communication and counselling skill. The collective interaction of the intermediate care team and the patient supported a problem-solving approach. The interaction between staff took time to develop, disciplinary and professional barriers took time to dissolve. This resulted in patient goals being patient centred and realistic. The staff appeared to have the understanding and appreciation to facilitate and coordinate the care package for the patient. The patient experience of being supported by the

intermediate care service enabled them to move forward with their recovery. The intermediate care experience equipped them with the necessary skills to address future challenges. Staff showed that their interaction with the patient, carer(s) and family helped them all to understand what was happening and showed understanding and insight to why it was happening.

Rehabilitation involves a much wider remit than just improvements in patient functional abilities (Bond et al 1994, Pryor 1999, Foote & Stanner 2002, Bowling 2005). The patient outcomes in this study did show significant improvement in patient's quality of life and functional ability. However, other attributes should be considered including physical, social, spiritual, emotional and psychological factors (Bond et al 1994, Renwick et al 1996, Wade 2004). In isolation, many of the variables had a weak relationship (e.g. age and outcome). However, when they were triangulated with other variables their relationship changes. With age, there is a degree of disability (Bond et al 1994). There is increasing life expectancy, but people are not living longer in good health (Audit Commission 2000, DoH 2004b). Therefore, to assist transition for people, there needs to be supportive functions, including education. The key to this was teamwork for the patient and continuity of care. Once trust had been gained, small interventions had the greatest impact (e.g. a perching stool so that someone could take the weight off their feet to make a cup of tea). Small interventions did not necessarily have to be material (aids and adaptations) it could be about advising or establishing a relationship.

There were however, barriers that in some instances could not be resolved easily (e.g. medical instability). People might be experiencing elements of depression because of their current situation and unexpected change to lifestyle. This change

only came evident when building a relationship with the patient and implementing their patient centred goals. Clearly, for the patient they wanted to be involved. None of the people interviewed felt excluded (including the patient's family and those staff groups who referred into the intermediate care service). The patient felt involved even when their pace of progress was slow or altered. Effective management of anxiety and fear are essential to gain confidence (Bond et al 1994).

The multidisciplinary approach in the intermediate care team appeared to combine the efforts of each member of the intermediate care team. The patient goals were interdisciplinary specific and this resulted in effective communication between all parties. There was evidence of interagency barriers between the team members being eradicated. Effective rehabilitation requires the skills of a range of different disciplines and professionals (Renwick et al 1996). Both the function and structure of the team can be critical factors in determining patient outcomes (Wade 2004). The intermediate care team reviewed in this study had a mixture of nursing, social and therapeutic elements. This collective approach ensured continuity of care and positively influenced patient outcome. The team members worked effectively together with the united purpose of facilitating positive rehabilitation outcomes for the patient, their carer(s) and family. There was evidence of mutual trust and negotiation to reach agreement in planning, implementing and evaluating patient centred goals.

This study could have undertaken a simple quality of life or functional ability evaluation to show effectiveness of service outcome. The exploration of intermediate care using the patient's journey has explored the interaction and relationship of many different variables. It has shown how people interact within their own social world

and all the constraints and influences placed upon it. An intermediate care service is unique in its structure and function. This uniqueness has made the service so successful in supporting people at a time of crisis and uncertainty.

The intermediate care readmission rate of 2.2% is considerably lower than the local acute hospital readmission rate of 5.5% and the national rate for older people of 7%. The difference between re-admission rates is worth mentioning. There are many possible reasons why this could be the case and assumptions can be drawn. When all the pieces of the jigsaw are put together, it is possible to make assumptions and conclude that the multi-faceted nature of intermediate care is effective in maintaining individuals in the community. There are however, concerns raised in the literature that patients are being discharged too early and being put at risk (Carers National Association 2001, Munshi et al 2002). The intermediate care low readmission rate appears to address some of those concerns. There were concerns from patients and carers in this study that the proposed alternative infrastructure to support them post intermediate care would not be effective and would result in rehospitalisation. It is important that the patient and carer(s) anxiety be reduced (Kvaal 2003). This study's results showed that this did occur.

5.4 Relationship of the Study to Previous Research

As discussed in chapter one, the complexity of intermediate care has been difficult to evaluate nationally. Large-scale studies had failed to meet all their aims and objectives. Earlier research studies had addressed the complexity of the intermediate care service by evaluating specific areas such as patient outcome, inpatient verses early discharge or cost effectiveness (Richards et al 1998, Rudd et al 1998, Shepperd

et al 1998, Barton et al 2006). This study's approach was different because it followed the patient's journey. The patient's journey has not been used before to evaluate an intermediate care service. The purpose of this study was to address some of the deficits in the literature and to build upon the intermediate care knowledge base.

As stated in the introduction of this chapter, the patient's journey has been used in nursing literature to describe different care pathways. A care pathway is described as a multidisciplinary outline of anticipated care for a patient with a similar diagnosis or set of symptoms. The pathway specifies the interventions required for the patient to progress during their care intervention (De Bleser et al 2006). Care pathways are used to ensure that the quality of care is delivered to the patient in a consistent and efficient way (Griffith 2007). The study draws on the strengths of care pathway processes and transfers the consistency and efficiency of care pathways to evaluate an intermediate care service. This approach allows the researcher to examine all aspects of influence and patient outcome measures.

Evaluation of any new service is essential if its planned purpose is to be realised and its value recognised (Wade 2004). People are spending less time in hospital compared to ten or twenty years ago (Stevenson & Spencer 2002). More people with complex health needs are now cared for in the community instead of being hospitalised (DoH 2005). The government has made intermediate care a high priority to deliver the modernisation agenda. Earlier studies have shown that elements of intermediate care are flexible to meet local needs and effective in meeting the NHS agenda (Wade 2004, Martin et al 2004). Intermediate care is complex, the provision varies from patient to patient, and as such, it cannot be regarded as a single

intervention. The complexity of the service lends itself to a mixed method evaluation of the type described in this study. The lessons learnt from previous intermediate care research studies further rationalises the argument to evaluate people's lived experiences as they interact with the service in order to evaluate service effectiveness in the broadest sense.

The mixing of research methods allowed the researcher to triangulate the results of the quantitative and qualitative data in a single study. It is argued, that recognising that all methods have their limitations allows the researcher to offset the weaknesses inherent within one method with the strengths of another method. It is possible that biases inherent in a single method could neutralise or cancel those in another (Creswell 2003). In this study, it was concluded, that the results from one method did help develop and inform the other method. Collectively the mixing of methods has allowed the exploration of a very complex area 'the patient's journey'.

The intermediate care service evaluated in this study was a community-based service, offering support in step-down & step-up facilities and the patient's own home. The service incorporated a rapid response element to prevent an acute hospital admission and an element to support discharge from an acute hospital. This allowed the researcher to evaluate an all-inclusive representation of an intermediate care service rather than single examples (Hyde et al 2000, Hitchins 2000, Griffiths et al 2000, Brooks, Maughan 2001, Trappes-Lomax et al 2001, 2002, Chell & Incs 2003, Housing 21 2003, Roe et al 2003, Stevenson & Spencer 2004, Walsh et al 2005, Ward et al 2005). A number of earlier research studies had looked at defined services such as 'hospital at home schemes' (Wilson 1999, Gunnell et al 2000, Coast et al 1998, Shepperd et al 1998, Shepperd & Iliffe 1998, Donald et al 1995) and 'early

discharge schemes' (Nixon & Whitter 1997, Mistiaen et al 1997) or admission avoidance schemes (Peet et al 2002). It is recommended that an evaluation of an all-inclusive example of a multiagency and multidisciplinary service is more representative of an intermediate care service as defined by the DoH in the intermediate care circular (DoH 2001).

Many of the early studies involved the use of an RCT (Richards et al 1998, Shepperd et al 1998, Rudd et al 1998, Steiner et al 2001). A case was presented to the local Research Ethics Committee for this study not to be an RCT study. However, the researcher does acknowledge that there are many merits in incorporating a RCT when assessing effectiveness or a defined outcome measure. Randomising two groups does give a baseline or comparison to test for effectiveness. Randomisation however, does not guarantee that the population randomised is typical of the wider population being studied (Bowling 2004).

The rationale for not incorporating a RCT in this study is because of the multifaceted nature of intermediate care and secondly, this study is exploring the influences on the patient's journey. It is not making comparisons between two separate groups or elements. It is not evaluating singular elements that can be easily incorporated into the confines of a RCT. Using a RCT for some of the elements in this study would have been repeating previous research attempts, e.g. Gunnell et al (2000) looked at carer burden and Shepperd et al (1998) who compared hospital at home and in-patient care. An RCT has been successfully used to evaluate elements of intermediate care and these are acknowledged (Griffiths et al 2001, Steiner et al 2001). However, these studies were restricted in their areas of evaluation and were

not fully inclusive of what contributes to an intermediate care service as defined by the DoH in the intermediate care circular (DoH 2001).

It has been long recognised that health expectancy of older people has not kept pace with increased life expectancy (Fee et al 1999). However, levels of dependency were enhanced following the intermediate care intervention. There was strong evidence of the effectiveness of the intermediate care service in supporting individuals to maintain a level of independence when they left the intermediate care service. There is widespread consensus about the importance of good rehabilitation to aid patient recovery (Victor & Howse 2000). It is not just the importance of good rehabilitation it is also recognising that effective rehabilitation is integral to a continuum of care for the patient (DoH 1997b, 1999c, District Audit. 2002a). There are intermediate care studies that looked at reducing dependency. Steiner et al (2005) used dependency as one of their outcome measures.

One of the questions asked of the referrers in this study was “*what would happen to patients if they did not access the intermediate care service*”. Government policy is clear about its drive to reduce pressure on acute hospital beds and to delay reliance on sparse community resources. From the analysis of the data it was noted that the majority of patients would have stayed in hospital longer (increasing pressure on acute bed availability). If the patient had not accessed hospital, they would either have an increased package of social care or accessed a non-acute residential bed. This would have inadvertently put greater pressure on other local care resources. A service readmission rate that is considerably lower than the national average at twenty-eight days is a significant result (study result 2.2% compared to a national

older people rate of 7%). Hospital readmission rates have been explored before in nursing research (Anderson et al 2004, Hong et al 2004, Williams et al 2005).

The intermediate care guidance advocates six weeks support from an intermediate care service. There is enough evidence in the literature to advocate that this figure needs to be flexible to meet individual patient needs (Stevenson & Spencer 2002, Wade 2004). This flexibility was reflected in this study's sample. Although the majority of patients did fall into this remit, thirty patients (33.33%) had a length of stay longer than six weeks (42 days). The length of stay for a patient receiving care and support from an intermediate care intervention was reliant on the patient's own physical health, mental health and well-being. This argument is supported in the literature (Wade 2004, Martin et al 2004).

This study has shown how an intermediate care service can be effective to support older people and to deduce demand on future care services. Using the patient's journey has allowed the researcher to evaluate service effectiveness in the broadest sense. It has explored beyond basic outcome measures (quality of life and functional ability). It has allowed the patient to tell his or her own story. As with any success, care is required to ensure that the infrastructures are in place to underpin the intermediate care service or the service will not be able to meet the demands placed upon it. Intermediate care has shown that it is effective and adaptable to change in other studies (Stevenson 2001, DoH 2002e, Stevenson & Spencer 2002, Wade 2004, Martin et al 2004). However, care is still required that it does not become a casualty of its own success (Janzon et al 2000, Barker 2005).

There is an acknowledgement that intermediate care is complex and multi-faceted (Stevenson & Spencer 2002, Martin et al 2004). The diversity of intermediate care is challenging and as raised by Martin et al (2004) there is a need for careful monitoring and evaluation of the effectiveness of the different approaches to intermediate care in general. The literature knowledge base still considers the idea of intermediate care as being new (Young & Stevenson 2006). Intermediate care is still facing many testing challenges before it can firmly establish itself as a fully integrated mainstream service (Barker 2004).

In summary, this study's design does have similarities to other research studies. The Barthel index tool has been used successfully in other intermediate care research studies (Shepperd et al 1998, Griffiths et al 2001, Steiner et al 2001, Barker 2002). Patient's length of stay, discharge destination and living arrangements have been explored (Griffiths et al 2001, Steiner et al 2001). The SF-8 quality of life tool has not been used to evaluate an intermediate care service, but the SF-36 has and both tools measure the same eight domains (Barker 2002). Semi-structured interviews have been incorporated in intermediate care studies to explore patient experience (Plochg et al 2005).

The mixing of quantitative and qualitative research methods have been used successfully to evaluate elements of intermediate care (Green 2005). This study has explored service effectiveness in the broadest sense, but exploring the patient's journey has facilitated a comprehensive all-inclusive exploration of all elements and constants (including physical, material and psychological).

5.5 Retrospective Considerations

It is far easier to reflect on past occurrences to identify how things could have been done better or differently. This study had set out to bridge the gap in the intermediate care research and to bring new knowledge. The study design had set a number of very ambitious aims and objectives. The main obstacle for this study was gaining ethical approval and convincing the ethics committee that undertaking a RCT would not assist the complexity of this study. On reflection, the researcher could have presented the rationale more strongly in the ethics committees application form. Attending the ethics committee was a very stressful experience, having to argue and present the study's research aims and objectives. However, attending the committee hearing was a useful learning experience for the researcher.

Having to rely on others to support the data collection process was a potential weakness. The study covered a very large geographical area and it would have been impossible for one individual to cover the whole area. Another option would have been to consider evaluating an intermediate care service within a more defined geographical area. On reflection, this study covered both urban and rural population sites and this representation of different geographical areas would make it easier to transfer the study design in either a rural or urban area or combination.

Sometimes the researcher has to accept that there are risks in any method or combination of methods used. The researcher had made up packs for every individual participating in this study, these packs contained all the information, data collection tools and letters that would be required. Even this preparation did not stop the wrong discharge/transfer questionnaire distributed to a small number of people.

The intermediate care staff did receive training to ensure that they were familiar with the documentation and the study design. On reflection, maybe more time and follow-up could have taken place. However, the researcher concludes that it is not always possible to anticipate every eventuality. The most important thing is how the researcher responds to unforeseen eventualities that are more important in order to limit the impact on the study's desired outcome.

Bringing in a second researcher at such a late stage is not recommended, though on reflection, it was the only option to ensure that the study kept on track. Using an experienced second researcher and ensuring adequate training and shadowing did reduce the risk of inconsistencies. Unforeseen circumstances caused by staff sickness resulted in a third of the data being lost. To maintain the robustness of the study the researcher had to act quickly to limit the damage caused by the lost data. The researcher had put into place mechanisms to monitor the data collection process. These were adequate when everything was running smoothly, but inadequate to identify when things were not (e.g. bi-weekly meetings, telephoning and email). The second researcher assisted to replace the lost data by taking over the data collection task from the intermediate care staff, this process eliminated the increased work pressure placed on the intermediate care staff workload due to staff shortages. Losing this amount of data in any study could have been catastrophic, but the swift action of the researcher significantly limited the potential impact and harm.

Having no nominal budget was challenging at times and careful negotiations with key stakeholders were required to ensure the smooth running of the study. On reflection, the researcher should have anticipated possible incurred costs. For

example, cost of postage stamps. Robust preparation at the beginning would have reduced potential dilemmas such as these.

Sampling is an important aspect in any study. In quantitative research, a sample obtained from a representative sample is more likely to represent the population studied. The researcher wanted a representation across the geographical area. A simple probability sampling process was selected. The selection process was coordinated by the intermediate care staff and the researcher remained totally uninvolved. The selection allowed every sixth person access to the study. On closer analysis it was noted that one small area had not been represented, a small town. On reflection, as a whole, there was full representation from both rural and urban areas and it is not always possible to have full representation, because the only way to achieve that would be to incorporate every individual receiving intermediate care.

The SF-8 and Barthel were implemented twice in this study. Patients were initially assessed on entering the intermediate care services and for a second time at the end of their intermediate care intervention. A missed opportunity was to assess individuals for a third time at twenty-eight days. On reflection, this would have allowed additional examination of individual's quality of life and functional ability at a post intervention stage and could have enriched the analysis further.

Ethnicity was not taken into consideration in this study. The justification for this decision is supported by the 2001 census (Office for National Statistics 2001). The census showed that ethnicity within the study's intended population was 97.9% white British. However, if this research study's design was to be replicated in other areas, it might need to be taken into consideration. The researcher acknowledges that this

study is a small study evaluating a local intermediate care service. However, it is concluded that future researchers could replicate or adapted this study's design to evaluate other examples of an intermediate care service.

5.6 Review of the Research Design

As discussed in chapter three. In undertaking any research there are potentially many different frameworks for the collection and analysis of data. On reflection, the combining of quantitative and qualitative approaches and dual investigation has assisted in the triangulation of this study's results, supported cross-validation and the collaboration of the findings. The use of multiple methods has assisted in decreasing any risk of bias, has made the study more robust and gave the researcher greater confidence in the findings. Care was taken to ensure that the researcher did not influence the study both negatively or positively. Lack of rapport or over rapport between the researcher and participants could have affected the outcome of the study (Holloway 1997). The key was to have a robust research design, a realistic timetable, effective two-way communication and adaptability to change the study's research design in response to unforeseen factors and influences.

The complexity of this study's aims helped to shape the study design. Having no robust research data prior to 1996 helped to reduce the intensity of undertaking the literature search. Having previous evaluations that were weak and not comprehensive assisted the design of this study. The poor data set assisted in defining this study's design. The combination of methodological approaches has enabled a far broader investigation of the patient's journey. It has broadened the horizon, allowed depth to the evaluation and has enriched the quality of the analysis. The research design

guided the study and thorough planning in the initial stages and ensured that the study was robust enough to address the research aims. Undertaking an extensive literature search is vital and definitely helped to guide this study. Reviewing and learning from existing research studies is essential and prevented wasting valuable time and duplication by repeating previous research attempts. The confidentiality model (DoH 2003b) as illustrated in figure 5.4 guided this study and ensured that the patient's information and interests were protected.

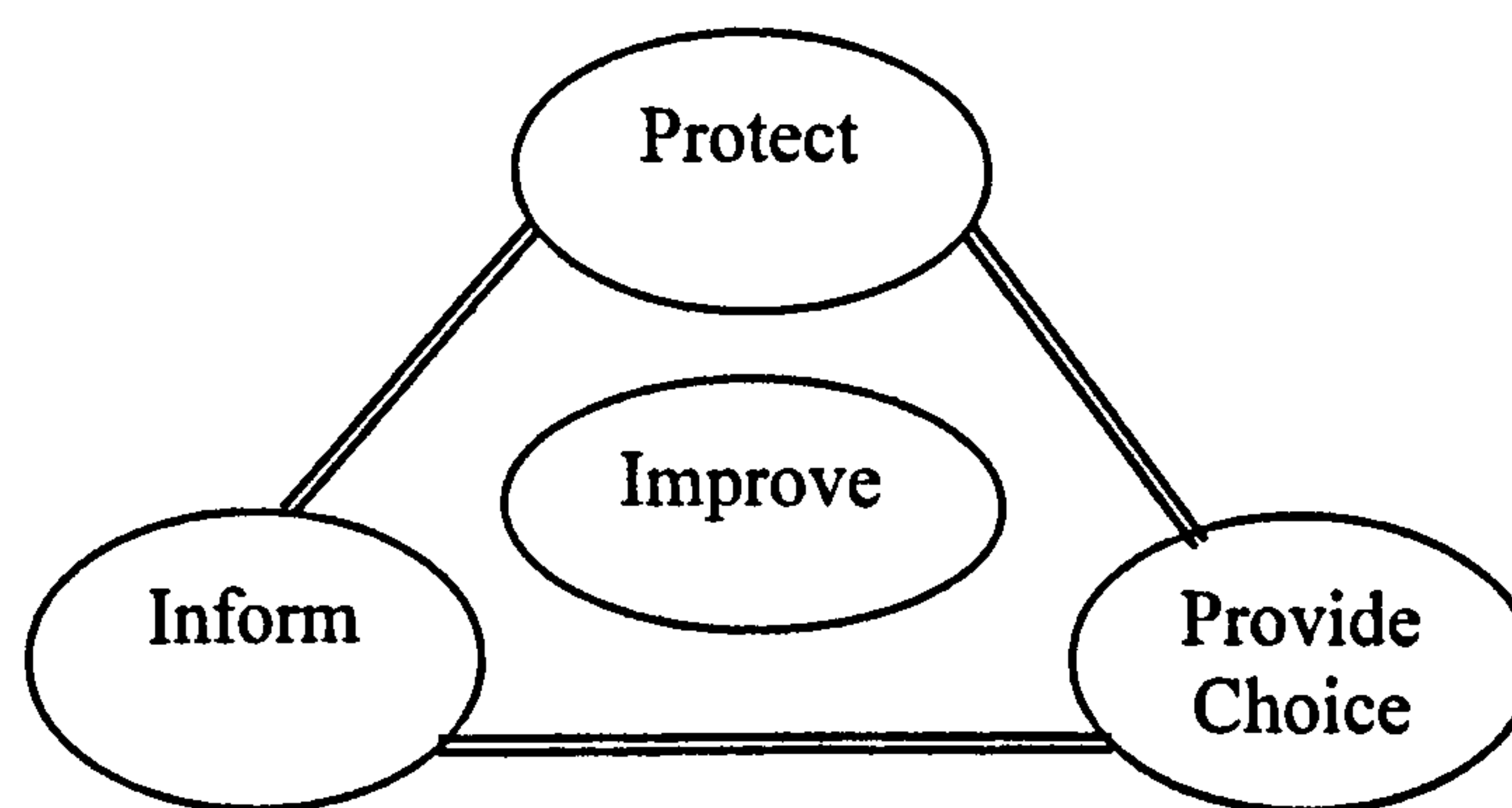


Figure 5.4 – Confidentiality Model – adapted (DoH 2003b – page 10)

Providing choice is linked with the ability to withhold or grant consent without coercion (provide choice). In any research there must be safeguards to protect individuals from harm or warn them of any potential harm (protect). The researcher must be open and honest at all times and keep the participant informed through discussions and reinforced information with leaflets or letters (inform). If the researcher remembers these three basic principles it will enrich the experience of all those contributing (improve). Ethical approval was paramount to protect the rights of individuals. Informed consent was the most fundamental ethical principle. Participants involved in this research study had to understand the nature and the purpose of the research. They had to give consent to participate without coercion (Burns 2000). Ethical principles, rules and conventions distinguish acceptable behaviour from what is considered socially unacceptable by the general population

(Burns 2000). Ethical principles in research revolve around certain issues, whether there is harm to participants, a lack of informed consent, and/or an invasion of privacy or whether deception is involved (Diener & Crandall 1978).

Undertaking a study that covered a large geographic area it became necessary to rely on others to assist in collecting and generating some of the data. This reliance did influence the consistency of the data collection process. Unfortunately, a portion of the data was lost due to staff sickness. Some of the data could be retrieved, but it was decided not to include this information in the analysis. The rationale was that there was a time delay between data collection points. This time delay would affect the robustness of the data and make it more difficult to replicate the results if the study were repeated in the future. It is possible to learn lessons from this experience. Some of the problems were due to the inexperience of the researcher and over reliance on others. The main lesson learnt was to ensure that there are robust communication channels in place to maintain consistency and that the researcher is notified of any change in the timeframe immediately. Sometimes it is not possible to predict or stop things from going wrong. What is important is how the researcher responds to a crisis effectively and quickly, that the researcher puts in place effective strategies to reduce or eliminate potential problems or harm.

When deciding on an appropriate sampling method, it is essential to make sure that the sample is fit for purpose. The key to addressing sampling effectively is to have a sampling framework in place. This is especially important when undertaking a study that combines research methodologies. Quantitative and qualitative research methodologies both have different sampling processes. Sample representation is more important for quantitative researchers, whereas qualitative researchers prefer

more meaningful sampling approaches (Polit & Beck 2004). The selection process in this study would have not responded so quickly in response to the problems that occurred with the lost data if there had not been a sampling framework in place. Having a framework in place eliminated the potential dilemmas of maintaining the desired sample size. To reduce potential biases of the researcher, the researcher remained detached from the sampling process. Participants were approached by the intermediate care staff.

The selection of participants in this study occurred over three separate periods within a full year. There were no particular variations in the type of referral (seasonal variation or quantity). When a research study relies on working staff to support the data collection process, it is important that the study does not impact too highly on their daily routine or affects the care people receive. This study's timeframe set out to minimise impact on the daily running of the service, the rationale was the researcher wanted to minimise any potential impact of the study on what was being evaluated. The researcher concludes that the sampling framework for this study was simple, fit for purpose and possible to replicate in future studies.

To assist the researcher in gathering information a data collection form was developed and three separate assessments tools were implemented (quality of life, functional ability and a discharge/transfer questionnaire). The quality of life and functional ability tools used in this study were nationally recognised validated tools (quality of life tool – SF-8 appendix V, functional ability tool – Barthel appendix VI). The rationale for this decision was that it is appropriate to use an existing validated tool if available. The patient discharge/transfer questionnaire was designed for this study because there was not an appropriate or validated tool for this aspect of

the study (patient discharge/transfer questionnaire appendix VII). A great deal of information was generated from these tools. It is a difficult decision for any researcher when deciding on what tools should be incorporated in the study to assist in gathering the necessary information. The researcher acknowledges that there are limitations to any method of data collection incorporated into a study. One way of limiting potential problems is to pilot the tools before commencing the study.

Questioning people can generate a great deal of information. People have a unique ability of communicating verbally and this approach can be less inhibiting than written responses. The strengths of interviews far outweigh those of other methods (Polit & Beck 2004). Interviews can protect the interviewee and researcher against ambiguous or confusing questions. Incorporating semi-structured interview schedules in this study allowed flexibility, but kept the interview focused. This flexibility allowed further exploration and clarity. The interview schedules were basic, but adequate for this study's individual requirements. It is always possible after the event to identify potential areas of further exploration or missed opportunities. The researcher acknowledges the potential limitations of undertaking semi-structured interviews. However, the researcher concludes, that the flexibility of semi-structured interview formats in this study met their purpose.

On reflection, this study's research design had achieved its goal. There were unforeseen setbacks and dilemmas that tested the sturdiness of this study's design. Undertaking the literature review had directed and informed the research design. The pre-study preparation time assisted to eliminate many obstacles, for example piloting the data collection forms. Piloting documentation is time consuming, but to ensure the study's design is fit for purpose it should be undertaken. The merging of

quantitative and qualitative methods of inquiry did strengthen the robustness of this study. This study attempted to address gaps in the literature knowledge base and used the patient's journey as its method of discovery. However, the researcher acknowledges that there is always room for improvement and retrospective considerations of this study were discussed in section 5.5.

5.7 Suggestions for Additional Research

In deliberating options for additional research, the researcher concludes that there are a number of possible considerations.

- To replicate this study's aim and objectives in another area / location
- Adapt this study's aims and objectives in another area / location
- Address gaps identified while undertaking the study

The researcher acknowledges that this was a comparatively small study within a defined geographical area. The study's aims were designed to evaluate a local service. On reflection it is concluded that the aims and objectives were robust and could easily be transferred and replicated in a future study. The researcher would conclude that with sufficient planning and preparation it would be possible to widen the study's site and evaluate another example of an intermediate care service or alternatively undertake an evaluation in multiple areas. This study's target population did not have a high ethnic or mixed cultural background. The methods would not need to change to address this issue, but it is uncertain if the results would be affected if replicated in its current form.

The utilisation of the patient's journey was this study's strength. It allowed the researcher to examine multiple influences prior to accessing the intermediate care service, during intervention and post intervention. The areas of investigation were comprehensive and demonstrated positive outcome measures. There are always limitations to any tool incorporated in a study. The Barthel is a well referenced tool (Bowling 2004). Any known weakness to a tool can always be addressed with additional questioning. For this study this was achieved by incorporating a qualitative element to the study to allow further exploration of a very complex area. The SF-8 quality of life tool was an appropriate measure to assess quality of life. However, there were limitations to the tool (questioning physical and emotional health in one question). In isolation the tool would have been weak. The triangulation of multiple methods to interpret the data enhanced the accuracy of this study's outcome. The Short-form questionnaires for quality of life have been evaluated for accuracy in their interpretation (Ware et al 2001). The SF-36 would not be appropriate for this study's defined population (Barker 2004). The SF-12 and SF-6 have not been used, but could be considered in future evaluations.

There were however gaps in this study's exploration. The researcher suggests that there needs to be further exploration of the influence on the carer. Support mechanisms were put in place by the intermediate care service to empower the carer and reduce their physical burden. However, their actual level of responsibility to the person they were caring for did not change greatly. The psychological affect on the carer needs to be further explored.

Another area for consideration is the patients feeling of being a burden on family and friends in a time of crisis. For the patients, maintaining their independence was

important to them in order to protect the relationship they held with their family. There is no evidence base within general nursing research looking at patient burden following an acute episode.

5.8 Summary and Conclusion

When the UK government published the NHS Plan in 2000 (DoH 2000) it set out a radical ten year programme to modernise the NHS. There was an assumption that intermediate care would be a key component in taking forward this work and equally supporting future policy direction. The philosophy was to build a bridge between hospital and home (Figure 5.5).

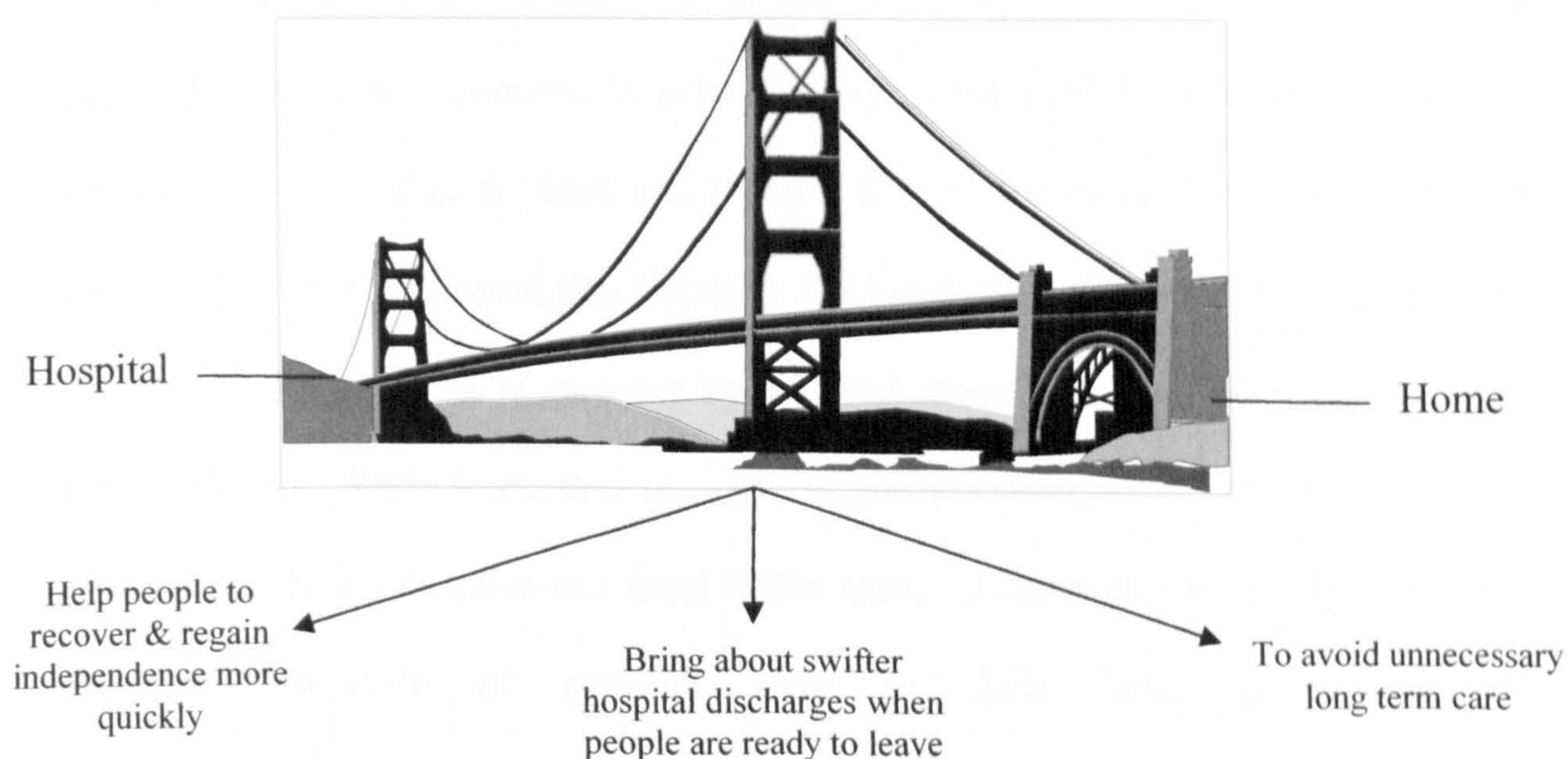


Figure 5.5: Bridge between hospital and home

Intermediate care was to be pivotal to the modernisation agenda and not an optional extra (DoH 2002). Significant progress has been made, but the expectations for the intermediate care service are still high. The evidence base to support this concept is

variable and inconclusive (Wade 2004, Martin et al 2004). As quoted by the national director for older people's services, Professor Ian Philp:

“If there is one single priority for the NHS... it is to ensure that intermediate care services are made real...because unless we develop real intermediate care the whole edifice of the NHS will collapse.”

DoH 2002b, page 7

There is a rationale to the above statement by Professor Ian Philp. It is estimated that two and a half million people use the NHS and social services every day and of these, the highest proportion are older people. Two-thirds of individuals cared for in hospital wards are aged 65 years and over and that nine out of ten people seen by community nurses are older people (DoH 2003). The majority of resources within primary and secondary care are spent to support older people. The growing ageing population is a major concern to policy makers. Since 1930 the number, of people aged 65 has more than doubled and today a fifth of the population is aged over 60 years. It has been estimated that between 1995 and 2025 the number of people aged 80 years and over is set to increase by half and those aged over 90 years to double (DoH 2001a). With forecasted changes within the population structure, there are concerns on how resources can meet future capacity demand. This study has shown that the majority of patients were in their latter years and the multiagency/disciplinary approach is effective.

To address future resource deficits government policy makers gave the Intermediate care service the task to change how services were to be delivered. The rationale for change was to ensure that the NHS was robust enough to meet the anticipated future demand without any evidence for its effectiveness. Most people will want to be able to live as independently as possible as they grow older. There may be times, when

people will need to call upon either the NHS and/or Social Services to assist them in maintaining or regaining independence. In the past, providing high quality services to the public had been regarded as an unaffordable luxury (Social Services Inspectorate 2003). Intermediate care is a multi-faceted concept and has its roots embedded in partnership working and placing the patients at its nucleus (Stevenson & Spencer 2002). The success of this is reliant on effective infrastructure to support the intermediate care service or otherwise problems are just being transferred from one service area to another. If intermediate care is not supported fully then it will become blocked in the same way as any other service, clearly it cannot be the answer to everyone's problems (Barker 2004).

This study has explored beyond what was visible and beyond the concept of an intermediate care service. The literature review has shown how something that had no evidence of effectiveness has proven to be so invaluable to government policy and address local need. It was possible from the literature to anticipate the next policy influence on intermediate care before it even happened, purely by the sequence of events and publications from the DoH (chapter one, figure 1.1). However, the lack of consistency by the government has resulted in some fragmentation and variation in service models. The previous research evidence base was weak. This weakness was a result of the complexity of intermediate care. Much of the evaluations had related to activity and not outcome. Nick Edwards (editor) in the May 2007 edition of the Health Service Journal talked about the problem of measuring outcomes and the difficulties in achieving them.

“What is the use of counting the numbers of words in a joke without finding out if it's funny or not”

Edwards, N. 2007, page 3

The short sentence above is so powerful in its meaning. It has helped to reinforce why this study has taken this approach of exploration and discovery. It could have been easy to lose sight of this study's aims, because of the extent and depth of data gathered. When the data is so complex then it is easy to get lost in the statistical analysis and forget what actually you are measuring. Care in the community has been compared to a jigsaw (Meredith 1996). Intermediate care is a jigsaw, each building block is reliant on the next and this is what gives it its strength. In order to understand how each piece interlinks there needs to be recognition of the complexity and multifaceted nature of the intermediate care service. The term intermediate care has evolved since its initial implementation. There are strengths to intermediate care and these have proven to be so successful. The researcher recommends that these strengths are harnessed by commissioners and providers of care and transferred to all mainstream services.

This study had a number of very ambitious aims and the methods of exploration generated vast amounts of data. The conclusion drawn is that this study did achieve its purpose. The complexity of intermediate care and the difficulties experienced by other research teams adds further justification for this study to evaluate a local service. Using the patient's journey as the tool to unpick the multi-facet nature of intermediate care has added to the knowledge base and has succeeded where other large-scale studies looking at defined areas had failed to reach their potential.

To understand the concept of intermediate care, it has been important to consider the external influences. This is not just the literature, but concepts as discussed in chapter two. People want to remain independent in old age and there is enough evidence to support this assumption (Bond et al 1994, Harding 1997, Barker 2005, DoH 2005,

Social exclusion unit 2006, Middleton et al 2007). The changing demographics of our society are going to influence future needs and requirements. The concept of Intermediate care has proven that it is adaptable to meet differing constraints placed upon it. The strength of this study has been the use of the patient's journey and the integration and triangulation of research methods. The intent of the researcher was to use this approach to strengthen the study's method of exploration, an approach that had not been attempted before to evaluate intermediate care. With the mixing of research approaches, it was possible to form relationships between the different variables.

In conclusion, this study has achieved its purpose and has added to the body of knowledge. It has addressed the multifaceted nature of intermediate care and has succeeded where previous research attempts had experienced difficulties or had failed to deliver their aim(s). There have been many internal and external influences on what constitutes an intermediate care episode. However, there are some underlying constraints or influences that must be in place and these should include continuity of care, smooth transition of care, two-way communication, no barriers between agencies/disciplines, single assessment principles and shared information (reduced duplication), patient/carer involvement, reducing burden (level of responsibility) and sharing of resources and expertise.

There is clear evidence that the patient, carer(s) and staff have benefited from the intermediate care experience. The intermediate care episode was effective in enhancing an individual's independence and quality of life. Evidence has shown a reduction in long-term continuing care needs. The advances in healthcare means that people are more likely to live longer and those accessing the study were clearly in

their advanced years. To promote independence and enhance quality of life there needs to be a balance between protecting individuals and enabling them to manage their own risks (DoH 2005).

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You have been invited to take part in this research project.

Before you decide it is important for you to understand why this research is being undertaken and what it will involve.

The intermediate care staff are here to answer your questions or any concerns you might have.

The decision to take part in this research project is entirely yours. It will not affect the care package you will receive from the intermediate care team.

There is no direct benefit for you participating in this research project.

PROJECT LEAD:

**Wendy Barker
RGN, DN, BSc Hons, MSc**

Thank you for your interest and help in this research project. If you would like any further information about this project please contact:

**Wendy Barker
Nurse Consultant for Older People
East Yorkshire Primary Care Trust
Health House
Grange Park Lane
Willerby
East Yorkshire
HU10 6DT**

Tel: 01482 650700

East Riding Intermediate Care



**Reducing Long-term
Dependency for Older People
within the
Boundaries of the
Intermediate Care Philosophy**

Project information leaflet:

The East Riding Intermediate Care Service is a partnership between health and social services. East Yorkshire Primary Care Trust is the lead organisation, working in partnership with Yorkshire Wolds & Coast Primary Care Trust, East Riding of Yorkshire Council and Hull and East Riding Community Health NHS Trust.



WHAT IS THE PURPOSE OF THE PROJECT?

This research project has been designed to assist in evaluating the East Riding Intermediate Care service. Looking at outcome measures and the level of service re-provision on discharge or transfer.

Your opinion is extremely invaluable to us. The information that we gain from people who have experienced the service will enable us to measure how helpful the service has been to you.

WHY HAVE I BEEN CHOSEN?

Every person aged 60 years and over whom access the service within a three-month period will be asked to take part in the project.

DO I HAVE TO TAKE PART?

Taking part is purely voluntary. If you decide not to take part, then this will not affect the care package you will receive from us.

BENEFITS:

There are no additional benefits if you decide to or not take part in the project.

CONFIDENTIALLY:

All information will remain confidential and anonymity will be maintained at all times. Your views are important to us. If for any reason it appears imperative to disclose any such information then permission will be sought from you.

WHAT WILL I HAVE TO DO?

As part of your assessment the intermediate care team will assess your physical ability using a tool called a functional assessment & independence measure. The team will explain to you what this involves in more detail.

You will be given a questionnaire on day one (admission) and a second one on your last day. The questionnaire is called a "quality of life questionnaire" (Short-form 8). The first questionnaire asks you your own opinion about your life the four weeks prior to being referred to the intermediate care service. The second questionnaire

asks your opinion about how you have felt during your stay on intermediate care.

Everything will be explained to you. You will be shown the questionnaire and assessment tool. If you have any concerns, then please do not hesitate to speak with your key worker or to contact me (details over leaf)

IS THERE ANY ADDITIONAL COST TO ME?

NO. There will not be any additional cost to you. The questionnaire given to you on discharge will be accompanied with a stamped addressed envelope.

CAN I WITHDRAW AT ANYTIME?

YES. If you decide at anytime that you no longer wish to take part in the project then you may withdraw. This will not affect the level of support you will receive from us.

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HULL AND EAST RIDING LOCAL RESEARCH ETHICS COMMITTEE

Room C24
College House
Willerby Hill Business Park
WILLERBY
HU10 6NS
Phone: 01482 335814
Fax: 01482 335813
e-mail: louise.carrison@hcrch-tr.nhs.uk

Mrs. W Barker
Service Coordinator, East Riding Intermediate Care
Health Centre, George Street
Pocklington
East Yorkshire
YO42 2DF

18 September 2003

Dear Mrs Barker,

LREC/08/03/167

Protocol number: Reducing long-term dependency for older people within the boundaries of the intermediate care philosophy

Thank you for attending the meeting of the Hull and East Riding REC for the further review of your application on 15th September 2003. The documents reviewed were as follows:

- LREC application form dated 1st August 2003
- Research Proposal
- Project information leaflet
- Quality Assurance Questionnaire
- Intermediate care position paper
- Intermediate care team configuration
- Barthel Index
- Interview format
- Health and Wellbeing questionnaire
- Consent form
- Response to LREC letter dated 22nd August 2003 addressing the concerns of the committee

The members of the Committee present agreed that there is no objection on ethical grounds to the proposed study. I am, therefore, happy to give you the favourable opinion of the committee on the understanding that you will follow the conditions set out below:

Conditions

- You do not undertake this research in an NHS organisation until the relevant NHS management approval has been gained as set out in the Framework *for Research Governance In Health and Social Care*.
- You do not deviate from, or make changes to, the protocol without prior written approval of the REC, except where this is necessary to eliminate immediate hazards to research participants or when the change involves only logistical or administrative aspects of the research. In such cases the REC should be informed within seven days of the implementation of the change.

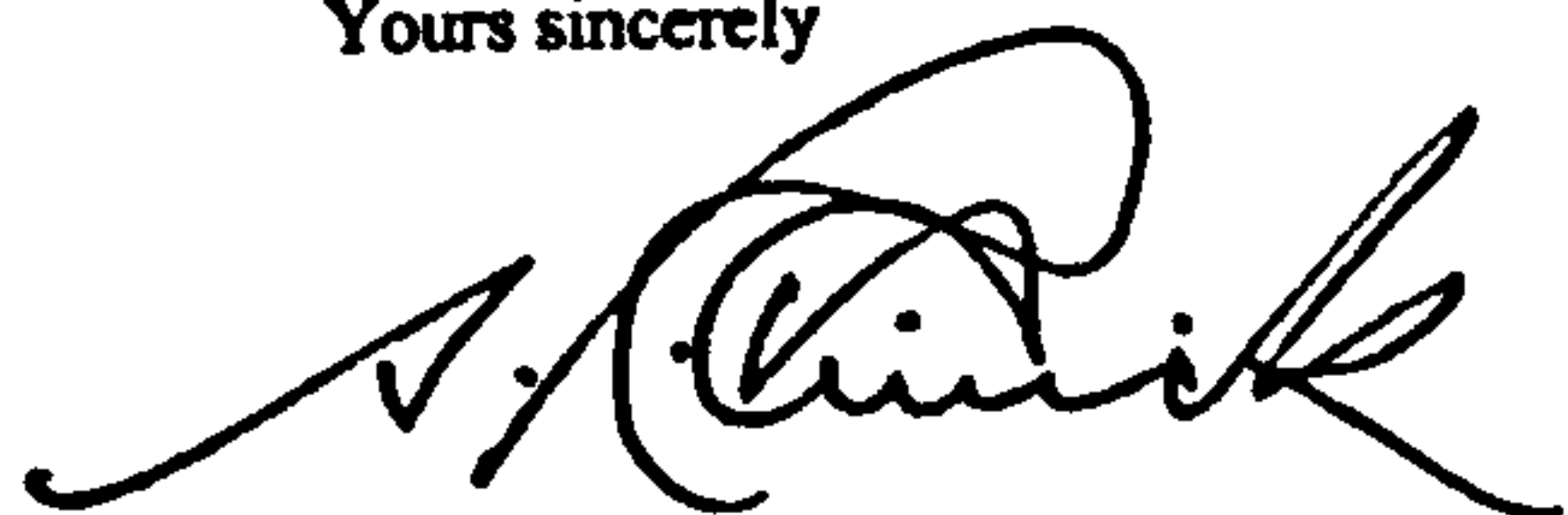
Hull and East Riding Local Research Ethics Committee Members

Prof. SR Killick (Chair)	Mr M Davidson	Dr CJ Brophy	Dr A Innes	Mrs E Dekkak	Dr D Horton
Mr GS Duthie	Clr K West	Mrs H Thornton-Jones	Dr L Cawkwell	Dr I Markova	Mrs S Floyd
Mrs F Shepherd	Mrs H Williams	Ms F Ashton	Mrs J Wild		

- You complete and return the standard progress report form to the REC one-year from the date on this letter and thereafter on an annual basis. This form should also be used to notify the REC when your research is completed and in this case should be sent to this REC within three months of completion.
- If you decided to terminate this research prematurely you send a report to this REC within 15 days, indicating the reason for the early termination.
- You advise the REC of any unusual or unexpected results that raise questions about the safety of the research.

The project must be started within three years of the date on which REC approval is given.

Yours sincerely



Prof. S R Killick
Chair of the Hull and East Riding REC

LREC/08/03/167 Please quote this number on all correspondence

Hull and East Riding Local Research Ethics Committee Members

Prof. SR Killick (Chair)	Mr M Davidson	Dr CJ Brophy	Dr A Innes	Mrs E Dakkak	Dr D Horton
Mr GS Duthie	Clr K West	Mrs H Thomson-Jones	Dr L Cawkwell	Dr I Markova	Mrs S Floyd
Mrs F Shepherd	Mrs H Williams	Ms F Ashton	Mrs J Wild		

Dear Sir / Madam

Reference: The East Riding Intermediate Care Evaluation

Attached to this letter is our discharge questionnaire. It would be very helpful if you could spend a few minutes completing the attached questionnaire. Once you have completed the questionnaire, please return it in the attached stamped address envelope. If you require any assistance in completing this form, please do not hesitate to ask any member of the intermediate care team.

As part of our evaluation project we would like to contact you again in four weeks to ascertain whether there has been any change in your personal circumstances since leaving our service. We will contact you either by phone or letter.

I would like to take this opportunity to thank you for your support in the evaluation of our service. Your contribution is truly appreciated.

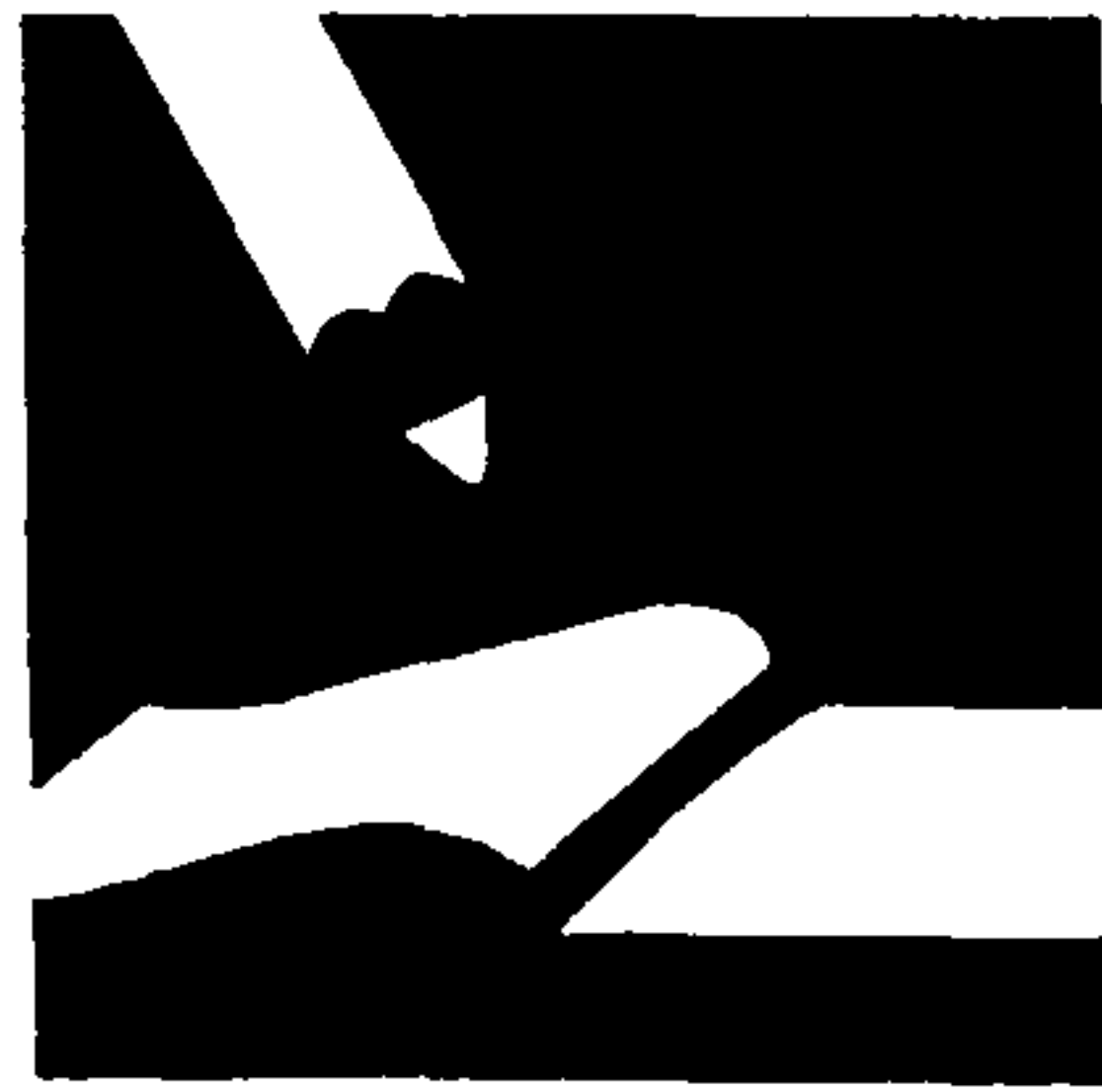
Yours sincerely,

Your Health

– *and* –

Well-Being

This survey asks for your views about your health. This information will help keep track of how you feel and how well you are able to do your usual activities.



Thank you for completing these questions!

1. Overall, how would you rate your health during the past 4 weeks? [Mark with a in the one box that best describes your answer.]

Excellent	Very good	Good	Fair	Poor	Very poor
▼	▼	▼	▼	▼	▼
<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	<input type="checkbox"/> ₆

2. During the past 4 weeks, how much did physical health problems limit your usual physical activities (walking, climbing stairs)?

Not at all	Very little	Somewhat	Quite a lot	Could not do physical activities
▼	▼	▼	▼	▼
<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

3. During the past 4 weeks, how much difficulty did you have doing your daily work, both inside and outside the home, because of your physical health?

None at all	A little bit	Some	Quite a lot	Could not do daily work
▼	▼	▼	▼	▼
<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

4. How much bodily pain have you had during the past 4 weeks?

None	Very mild	Mild	Moderate	Severe	Very severe
▼	▼	▼	▼	▼	▼
<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅	<input type="checkbox"/> ₆

5. During the past 4 weeks, how much energy did you have?

Very much	Quite a bit	Some	A little	None
▼	▼	▼	▼	▼
<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

6. During the past 4 weeks, how much did your physical health or emotional problems limit your usual social activities with family or friends?

Not at all	Very little	Somewhat	Quite a lot	Could not do social activities
▼	▼	▼	▼	▼
<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

7. During the past 4 weeks, how much have you been bothered by emotional problems (such as feeling anxious, depressed or irritable)?

Not at all	Slightly	Moderately	Quite a lot	Extremely
▼	▼	▼	▼	▼
<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

8. During the past 4 weeks, how much did personal or emotional problems keep you from doing your usual work, studies, or other daily activities?

Not at all	Very little	Somewhat	Quite a lot	Could not do daily activities
▼	▼	▼	▼	▼
<input type="checkbox"/> ₁	<input type="checkbox"/> ₂	<input type="checkbox"/> ₃	<input type="checkbox"/> ₄	<input type="checkbox"/> ₅

Thank you for completing these questions!

THE BARTHEL INDEX:

Patient/user ID Code

ACTIVITY	INITIAL SCORE	FINAL SCORE
	DATE	DATE
BOWELS: 0 = incontinent (or needs to be given enema) 1 = occasional accident (once/week) 2 = continent		
BLADDER: 0 = incontinent, or catheterised and able to manage 1 = occasional accident (max. once per 24 hours) 2 = continent (for over 7 days)		
GROOMING: 0 = needs help with personal care 1 = independent face / hair / teeth / shaving (implements provided)		
TOILET USE: 0 = dependent 1 = needs some help, but can do something alone 2 = independent (on and off, dressing, wiping)		
FEEDING: 0 = unable 1 = needs help cutting, spreading butter etc 2 = independent (food provided in reach)		
TRANSFER: 0 = unable – no sitting balance 1 = major help (one or two people, physical), can sit 2 = minor help (verbal or physical) 3 = independent		
MOBILITY: 0 = immobile 1 = wheel chair independent including corners etc 2 = walks with help of one person (verbal or physical) 3 = independent (but may use any aid e.g. stick)		
DRESSING: 0 = dependent 1 = needs help, but can do about half unaided 2 = independent (including buttons, zips, laces etc.		
STAIRS: 0 = unable 1 = needs help (verbal, physical, carrying aid) 2 = independent up and down		
BATHING: 0 = dependent 1 = independent (or in shower)		
TOTAL:		

Q8. Any other comments would be truly appreciated

East Riding Intermediate Care 

Quality Assurance Survey Questionnaire

NAME & ADDRESS (optional):

Date:

Thank you for taking the time to complete this form.

Your answers will help us to improve the service we provide.

IDENTIFICATION CODE:

THANK YOU

Q1: Did you receive written information about the Intermediate Care service? **[Yes] [No]**
How useful was it? (e.g. easy to understand).

Q4. Did the staff take notice of what was important to you? **[Yes] [No]**
How did they do this?

Q5. What did you like about the Intermediate care service you received?

Q2. Were you consulted about the level of support you would receive? **[Yes] [No]**
How were you involved?

Appendix VII

Q3. Were you kept informed of what was happening throughout your stay on intermediate care? **[Yes] [No]**
Please comment:

Q7. Did you have cause to complain? **[Yes] [No]**
If yes, how was this dealt with?

Patient Interview Questions (Hospital):

- Q1** Is this the first time that you have been supported by the intermediate care team. If 'no' explore – when that was, whether it was a positive or negative experience, and why they wanted to be supported by intermediate care again.
- Q2** When were you admitted to hospital?
- Q3** Why were you admitted? Explore what lead up to the admission, including initial reason and health status.
- Q4** How long have you been in hospital?
- Q5** How did you feel when the nurses on the ward mentioned to you about going home? Explore if there was any fear, how they thought they would be able to cope at home.
- Q6** How did you manage at home before you became unwell?
Explore family / carer network. Any help with shopping, cleaning, personal help etc.
- Q7** Did someone from the intermediate care team come and visit you in hospital?
Explore how they felt after that visit, did they feel confident that they would be supported when they got home.
- Q8** Did you feel that you were involved in planning your discharge?
Explore if they felt in control of the decision-making processes
- Q9** How did you feel on the day of your discharge when you were waiting for the transport.
Explore and fears or concerns how they would cope at home.

- Q10** Now that you are home, has the support you have received made a difference to you managing at home?
- Q11** Explore how this has helped, any impact on family, carer etc. Has this increased or reduced pressure on their coping mechanisms.
- Q12** When you were in hospital was there one thing that you wanted to be able to do when you came home?
- Have you achieved this – explore reasons why or why not.
- Q13** With the care and support you have been receiving has there been anything missing that might have made a positive difference to you coping at home?
- Q14** Do you think that the support you have been receiving has made a difference to you and your family?
- Explore what that difference has been – any fear of coping
- Q15** Has the support from the intermediate care team been what you expected?
- Explore any difference to previous experiences
- Q16** Are there any ways that you think we could improve the service?
- Lastly, would you recommend the service to others?

Patient Interview Questions (Prevent Admission):

- Q1** Is this the first time that you have been supported by the intermediate care team?
- If ‘no’ explore – when that was, whether it was a positive or negative experience, and why they want intermediate care again.
- Q2** Can you tell me when you first became unwell?
- Explore if this was a sudden or slow on set

- Q3** What help / support did you need in order for you to stay at home?
Explore what was happening, including health and physical constraints.
- Q4** How did you manage at home before you became unwell?
Explore family / carer network. Any help with shopping, cleaning, personal help etc.
- Q5** When you were first visited by a member of the intermediate care team, did you feel confident that the care / support you were being offered would be enough to enable you to remain at home?
- Q6** Explore how they felt after that visit – were they worried about how they would manage, did they feel confident that they would be supported.
- Q7** Has the support you have received made a difference to you managing at home?

Explore how this has helped, any impact on family, carer etc. Has this increased or reduced pressure on their coping mechanisms.
- Q8** With the care and support you have been receiving has there been anything missing that might have made a positive difference to you coping at home?
- Q9** Do you think that the support you have been receiving has made a difference to you and your family?
Explore what that difference has been
- Q10** Has the support from the intermediate care team been what you expected?
Explore any difference to previous experiences
- Q11** Are there any ways that you think we could improve the service?
Lastly, would you recommend this service to others?

Carer Interviews:

1. Have they felt supported – how – explore whether there has been any change (positive & negative)
2. Explore coping mechanisms
3. Have they felt in involved – any control
4. Any previous experiences - any positive or negative differences

Intermediate Care Team Staff Interview Questions:

- Q1** How long have you worked in the intermediate care team?
- Q2** What made you choose to work in intermediate care?
- Q3** Do you enjoy working in intermediate care?
Why – what makes it different
- Q4** Is it different working in a multi-agency team compared to your previous experiences?
- Q5** Can you name some positive differences? Are there any negative differences?
- Q6** Do you think that intermediate care has a beneficial influence on patient/service-user outcomes?

Can you give some examples?
Why do you think this is the case?
- Q7** What makes intermediate care different to other service models?
Give examples - why do you think it is different?
- Q8** Do you think that the patient/service-user receives a higher standard or a better quality of service from intermediate care team compared to other services?
Why – give examples?
- Q9** Is there anything that inhibits or limits the delivery of the service?
What are these?
- Q10** If there was one thing (money no object) that you could do to enhance the quality of the service what would it be?

To conclude why do you work in intermediate care?

Referrer Interview guidelines:

1. **Why did they refer to the intermediate care service?**

Exploring why they made that choice

2. **Were there differences to referring to other service groups**

Explore any difference - including both the positive and negative responses.

Try and ascertain what these differences were

Cross tabulation of the SF-8 questions:

Question One - overall, how would you rate your health during the past 4 weeks?

		SF-8 Q1 End Score						Total
		Excellent	Very good	Good	Fair	Poor	Very poor	
SF-8 Q1 Initial Score	Excellent	0	0	1	1	0	0	2
	Very good	0	4	0	3	0	0	7
	Good	1	1	9	3	2	0	16
	Fair	1	6	15	9	0	0	31
	Poor	0	2	5	13	1	0	21
	Very poor	0	0	2	8	1	2	13
Total		2	13	32	37	4	2	90

Question Two - during the past 4 weeks, how much did physical health problems limit your usual physical activities - walking, climbing stairs?

		SF-8 Q2 End Score					Total
		Not at all	Very little	Somewhat	Quite a lot	Could not do physical activities	
SF-8 Q2 Initial Score	Not at all	0	0	0	0	1	1
	Very Little	2	2	1	0	0	5
	Somewhat	1	4	6	5	0	16
	Quite a lot	1	6	21	9	0	37
	Could not do physical activities	0	1	8	15	7	31
Total		4	13	36	29	8	90

Question Three - during the past 4 weeks how much difficulty did you have doing your daily work, both inside and outside the home, because of your physical health?

		SF-8 Q3 End Score					Total
		None at all	A little bit	Some	Quite a lot	Could not do daily work	
SF-8 Q3 Initial Score	A little	1	3	2	0	0	6
	Some	2	4	2	1	2	11
	Quite a lot	3	2	14	4	3	26
	Could not do daily work	0	1	16	18	12	47
Total		6	10	34	23	17	90

Question Four - how much bodily pain have you had during the past 4 weeks?

		SF-8 Q4 End Score						Total
		None	Very mild	Mild	Moderate	Severe	Very severe	
SF-8 Q4 Initial Score	None	5	0	0	0	1	0	6
	Very mild	1	3	0	1	0	0	5
	Mild	2	2	5	2	0	0	11
	Moderate	3	3	10	10	0	1	27
	Severe	2	0	8	15	3	3	31
	Very severe	0	0	1	5	4	0	10
Total		13	8	24	33	8	4	90

Question Five - during the past 4 weeks, how much energy did you have?

SF-8 Q5 End Score							Total
SF-8 Q5 Initial Score		Very much	Quite a lot	Some	A little	None	
	Very much	1	0	0	0	0	1
	Quite a lot	0	3	1	3	0	7
	Some	1	6	14	5	0	16
	A little	0	4	22	12	3	41
	None	0	0	9	5	1	15
Total	2	13	46	25	4	90	

Question Six - during the past 4 weeks, how much did your physical health or emotional problems limit your usual social activities with family or friends?

SF-8 Q6 End Score							Total
SF-8 Q6 Initial Score		Not at all	Very little	Somewhat	Quite a lot	Could not do social activities	
	Not at all	1	1	0	1	0	3
	Very little	3	4	1	0	0	8
	Somewhat	3	6	6	3	1	19
	Quite a lot	2	4	12	8	1	27
	Could not do social activities	1	2	16	9	5	33
Total	10	17	35	21	7	90	

Question Seven - during the past 4 weeks, how much have you been bothered by emotional problems -such as feeling anxious, depressed or irritable?

SF-8 Q7 End Score							Total
SF-8 Q7 Initial Score		Not at all	Slightly	Moderately	Quite a lot	Extremely	
	Not at all	19	0	1	0	0	20
	Slightly	5	10	1	1	0	17
	Moderately	3	9	7	3	0	22
	Quite a lot	2	4	12	4	1	23
	Extremely	2	1	2	2	1	8
Total	31	24	23	10	2	90	

Question Eight - during the past 4 weeks, how much did personal or emotional problems keep you from doing your usual work, studies, or other daily activities?

SF-8 Q8 End Score							Total
SF-8 Q8 Initial Score		Not at all	Very little	Somewhat	Quite a lot	Could not do daily activities	
	Not at all	8	2	1	1	2	14
	Very little	9	4	1	0	1	15
	Somewhat	3	9	3	3	1	19
	Quite a lot	4	2	11	5	0	22
	Could not do daily activities	5	2	6	5	2	20
Total	29	19	22	14	6	90	

Cross tabulation of the Barthel start and end scores

		Barthel – End Score											Total	
		9	10	11	13	14	15	16	17	18	19	20		21
Barthel – Initial Score	4	0	0	0	1	0	0	0	0	0	0	0	0	1
	6	0	0	0	1	1	0	0	0	0	0	0	0	2
	7	0	1	0	0	0	0	0	0	0	0	0	0	1
	8	0	0	0	0	0	0	0	0	0	1	0	0	1
	9	1	0	0	0	0	0	0	0	0	0	0	0	1
	10	0	0	1	1	0	0	0	0	1	1	0	0	3
	11	0	0	0	0	0	1	0	1	2	1	0	0	5
	12	0	0	0	0	0	3	1	4	1	1	2	0	12
	13	0	0	0	0	1	1	1	3	2	1	3	0	12
	14	0	0	0	0	0	1	2	1	1	1	2	0	8
	15	0	0	0	0	0	0	1	3	2	2	3	0	11
	16	0	0	0	0	0	0	2	3	1	3	8	1	18
	17	0	0	0	0	0	0	0	1	0	2	1	0	4
	18	0	0	0	0	0	0	0	0	0	2	4	0	6
19	0	0	0	0	0	0	0	0	0	0	5	0	5	
Total		1	1	1	2	2	6	7	16	10	15	28	1	90

CONSENT FORM

Title: Reducing long-term dependency for older people within the boundaries of the intermediate care philosophy:

NAME OF RESEARCHER (KEY WORKER) _____

		Please initial box
1	I confirm that I have read and understood the information sheet given to me for the above research study and have had the opportunity to ask questions.	
2	I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my care or my legal rights being affected.	
3	I agree that all the information given by me can be used in the above study	
4	I agree to take part in the above study	

NAME OF PATIENT/USER:

DATE:

SIGNATURE

NAME OF PERSON CONSENTING
(if different from researcher)

DATE

SIGNATURE

RESEARCHER

DATE

SIGNATURE