THE UNIVERSITY OF HULL

An exploration into the rise in antidepressant prescribing and of GPs experiences of patients who present as 'depressed'

being a Thesis submitted in partial fulfilment of the requirements for the degree of Doctor of Clinical Psychology

in the University of Hull

by Michelle Connor, BSc (Hons) Psychology

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Overview

This portfolio contains three sections. Part one is a Systematic Literature Review, Part two is an Empirical study, and Part 3 is Appendices.

Part one is a systematic literature review exploring the reasons behind the rise in antidepressant prescribing. A systematic search was conducted using three databases. A total number of 26 studies were identified for the review. A narrative synthesis approach was taken to analyse the data. Three overarching themes were identified which fit into the biopsychosocial model. From there 10 sub-themes were developed. The findings are discussed in relation to research into the increases in antidepressant prescribing, clinical implications and potential future research.

Part two is an empirical paper, which explores GPs experiences of patients who present as 'depressed'. An interpretative phenomenological analysis approach was taken. Semi-structured interviews were undertaken with four participants. Four super-ordinate and nine sub-themes emerged from the data. These themes are discussed in relation to existing literature, clinical implications and potential future research.

Part three consists of the appendices supporting the systematic literature review and the empirical paper. It also includes an epistemological statement and a reflective statement.

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Part one: Systematic Literature Review

How do we explain the rise in antidepressant prescribing? A systematic literature review

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This paper is written in the format ready for submission to the

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Please see Appendix A for the guidelines for contributors

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Abstract

Background

Over recent years, there has been an increase in the number of prescriptions for antidepressants. This has been seen across many countries, both in and out of Europe. A wealth of research has explored the possible reasons behind this increase, with a number of factors suggested to be involved.

Methods

A systematic literature review was conducted using a number of electronic databases. A narrative synthesis was undertaken due to the heterogeneity of the studies subject to review.

Results

A total of 26 papers were reviewed, which included a number of quantitative and qualitative papers, plus one mixed-method study. The findings were incorporated within a biopsychosocial model, resulting in ten sub-themes. Findings showed a host of possible reasons for the increase in antidepressant prescribing.

Limitations

Due to the cross-sectional nature of the majority of studies, no causal inference could be ascertained. Furthermore, due to the heterogeneity of the studies, it was difficult to make direct comparisons.

Conclusions

The increase in antidepressants does not necessarily mean that there are more incidences of depression. Instead, the review found that the increase could be due to

antidepressants being prescribed for other conditions. Increasing prescribing was also linked to increasing age, being female, longer duration of treatment, and adverse life events. Clinical implications are discussed.

Keywords

Exploration Increases Antidepressant Prescribing Review

Introduction

Numbers of prescriptions issued for antidepressants has steadily been rising over a number of years. From 2011 to 2012 the Health and Social Care Information Centre (HSCIC) reported an increase of 7.5% in the number of prescriptions issued for all antidepressants in England (HSCIC, 2013). According to the World Health Organisation (2016), depression is a mental health condition associated with a number of common symptoms, including feeling sad, losing interest and pleasure in things, feeling tired, struggling to concentrate, sleep or appetite disturbance and/or having poor self-esteem. Depression is thought to affect 350 million people across the world, making it the most common cause of disability, as defined by the World Health Organisation (WHO, 2016). The economic burden of depression worldwide is significant, particularly in terms of the reduced number of people in employment and the cost associated with receiving healthcare for depression (World Federation for Mental Health, 2012).

Recommendations in the UK for the prescribing of antidepressants for depression suggest that antidepressants may be prescribed when the severity of depression is moderate to severe and that they are to be used in conjunction with psychological therapy. They are not recommended for use in cases of mild depression (National Institute for Health and Care Excellence; NICE, 2009). Increases in antidepressant prescribing are not unique to England. Research into trends of antidepressant prescribing has found increases in many other countries both in and outside of Europe (Abbing-Karahagopian et al., 2014; González-López et al., 2015; Lockhart & Guthrie, 2011; Munoz-Arroyo et al., 2006; Noordam et al., 2015; Wu et al., 2012).

Research into addressing the increase in antidepressant prescribing has investigated different potential explanations as to why this may be occurring and whether or not prescribing is appropriate. Different measures have been used to ascertain whether prescribing is appropriate. Generally, if a patient meets the diagnostic criteria for moderate to severe depression then prescribing antidepressants is considered appropriate. Researchers have used qualitative measures to understand how GPs (general practitioners) make their diagnoses (Hyde et al., 2005). Other studies have compared patients' scores on the HADS (the Hospital Anxiety and Depression Scale; Zigmond & Snaith, 1983) to GPs ratings of depression by using a scale based on the International Statistical Classification of Diseases and Related Problems (Cameron et al., 2009; World Health Organization, 2004).

Many studies have focussed on the decision making process of antidepressant prescribing. GPs perceptions have been found to have influenced the decision making process in antidepressant prescribing. Antidepressants were more likely to be prescribed when GPs perceived patients' depression to be more severe than their measures of severity on the Hospital Anxiety and Depression Scale (HADS; Zigmond & Snaith, 1983) and when they perceived that their patients had more positive attitudes towards antidepressants (Kendrick et al., 2005).

Both patient and GPs characteristics and attitudes have been identified as influential in the decision making process. Hyde and colleagues (2005) found that some GPs were generally optimistic and confident in the benefits of antidepressants and that they could be utilised to treat a number of depressive symptoms and that they would prescribe them in the absence of a diagnosis of depression. The socio-economic status of the patient was also cited as an influence, as was the educational level of the patient, and sex, in whether or not to refer for psychological therapy.

Britten and Ukoumunne (1997) found that the strongest predictor for GPs decisions to prescribe was their perception of the patients' expectations. They also found that GPs overestimated patients' expectations in wanting a prescription.

Models of depression have been seen to influence the treatment decisions. Patients that present a social model of depression in relation to their life situation were less likely to be prescribed medication. Conversely, patients that presented with symptoms and communicated them in more medical terms were highly more likely to be offered medication (Karasz et al., 2012). Some doctors were found to impart the biomedical model onto patients and to use definitions of depression that have a biological base so that they could prescribe antidepressants and for patients to accept them (Barley et al., 2011; Kapmeyer et al., 2006).

Other research has indicated that where GPs make a diagnosis of depression this appears to increase the length of treatment duration, therefore, suggesting that people will be in receipt of antidepressant medication for longer (Burton et al., 2012). Similarly, other studies have highlighted the need for more regular appropriate reviewing of patients taking long-term antidepressants, which could reduce the number of antidepressant prescriptions (Johnson et al., 2012; Sinclair et al., 2014).

Some studies have highlighted the lack of availability of psychological therapies as a factor for the increase in antidepressant prescribing (e.g. Hyde et al., 2005). However, a study examining the relationship between antidepressant prescribing rates and the Improving Access to Psychological Therapies (IAPT) found there was no significant impact upon antidepressant prescribing rates and the introduction of IAPT (Sreeharan et al., 2013).

Aside from treating depression it has been found that antidepressants are sometimes used to treat other conditions including gynaecological, gastroenterological, urological and pain conditions which may account partially for the increase and not that there are more incidences of depression (Hollingworth et al., 2010; Mercier et al., 2013; Mojtabai & Olfson, 2011).

Literature exists that suggests a plethora of reasons for the possible increases in antidepressant prescribing and many studies have focussed particularly on the decision-making processes. However, there is no review to date that attempts to draw together this body of work.This review aims to explore factors that may be associated with the rise in antidepressant prescribing in order to increase understanding about possible reasons behind this increase, and to provide insight into the broader clinical implications stemming from these findings.

Method

Search strategy

Systematic searches of literature were conducted using MEDLINE, PsychINFO and CINAHL Complete via the EBSCOhost interface. Searches were conducted in December 2015. Databases were selected as they incorporate both psychological and medical research. In addition, a hand search was completed in the Journal of Affective Disorders. The search terms used were:

(antidepress* OR SSRI*) N3 (prescri* OR medical*)

AND

(increas* OR rise* OR rising)

AND (reason* OR expla* OR factor*)

Limiters were applied as follows:

- Abstract available
- English language

No date limiter was applied in order to capture any associations for the increase in antidepressant prescribing that may have been identified in earlier studies but not in more recent ones. No further limiters were applied to ensure that all related papers were included.

Inclusion criteria

- Papers identifying possible factors for the increase in antidepressant prescribing including those from outside the United Kingdom
- Papers using qualitative, quantitative or mixed methods
- Written in the English language

Exclusion criteria

- Literature reviews
- Antidepressant use in specific client groups, for example, pregnant women, children and adolescents and older adults

- Antidepressant use in specific medical conditions, for example, cancer and diabetes.
- Side effects of antidepressants
- Drug interactions
- Clinical trials
- Animal studies
- Associations with suicide
- Single case studies
- Pure prevalence studies

As depression is thought to affect 350 million people across the world (WHO, 2016), it was decided to include studies from outside the UK in order to gain a global understanding and to identify if there were any variations in geographical areas. There are many studies in the area of antidepressants and it was decided to look more intently at associations for the increase in antidepressant prescribing, therefore, antidepressants studies which did not focus solely on possible reasons for the increase were excluded. For example, studies which investigated the use of antidepressants in specific client groups and specific medical conditions as these studies focused on the advantages, disadvantages and risk factors of antidepressant use rather than possible reasons for an increase in use.

Titles were initially read and rejected if they met the exclusion criteria. A total of 72 abstracts were then read and articles rejected if they did not meet the inclusion criteria. This left a total of 34 papers, which were then read in full. The final number of articles that met the inclusion criteria was 20. A hand search of the Journal of Affective Disorders was then conducted and six articles met the inclusion criteria. A

final number of 26 articles were included in the review. Figure 1 indicates the article selection process.

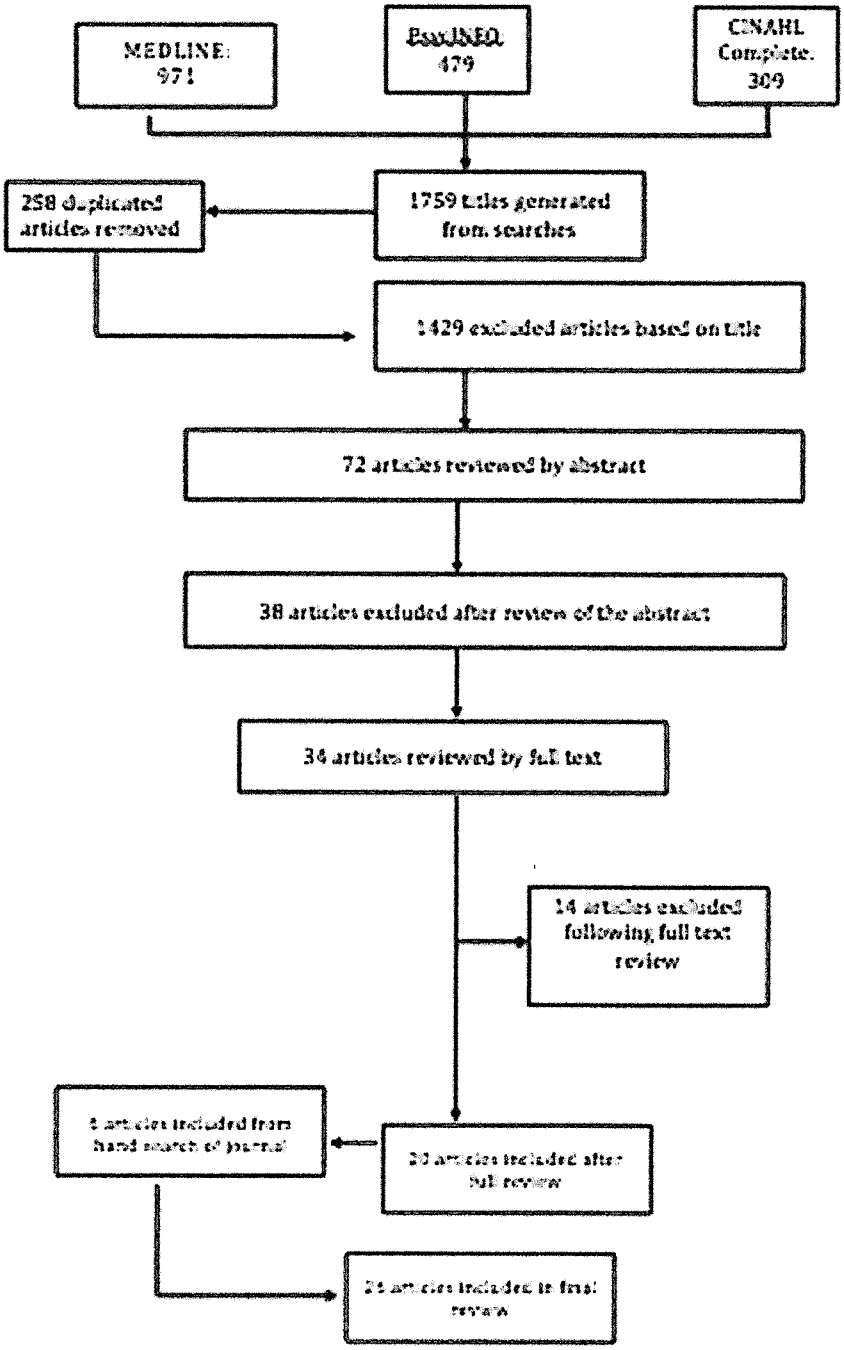

Figure 1. Flowchart of study selection process

Quality assessment

The articles for review included quantitative, qualitative and one mixed methods study. Therefore, three different quality checklists were used to assess the quality and reliability of each article. For the quantitative articles 'The Methodology Checklist: Quantitative studies' developed by the National Institute for Health and Care Excellence (NICE, 2012, Appendix B) was used. The checklist enables users to rate studies with either ++, +. -, or 'not reported', or 'not appropriate'. It does not provide an overall score. Their version developed to assess qualitative studies was used for the qualitative articles; The Methodology Checklist: Qualitative studies (NICE, 2012, Appendix C). This checklist enables users to rate the study if the study is reliable, appropriate and looks at strengths and weaknesses. This checklist does provide an overall score. For the mixed methods study, the Mixed Methods Appraisal Tool (MMAT; Pluye et al., 2011) was used (see Appendix D). This tool provides an overall quality score in a percentage format. To reduce bias, nine (35%) of the articles were quality assessed by a peer. Overall both the first author and peer assessor agreed on the quality assessments. Where there were small differences in agreement, discussions around these areas were had to reach a final consensus. Results of the quality assessments can be found in Tables 1 and 2, which provide details of strengths, weaknesses and an overall score for each study, where available.

Table 1. Quality assessment for quantitative studies

Authors and date	Design	Overall Quality	Strengths	Weaknesses
Ambresin et al. (2015)	Quantitative – Cross-sectional	Not provided	Good quality data. Used Partial Proportional Odds Model (generalized ordered logistic regression)	Mostly English speaking participants. Directions of associations cannot be ascertained
Bonde et al. (2009)	Quantitative – Prospective cohort study	Not provided	Adjusted for potential confounding factors	No data on non-redeemed prescriptions
Chan et al. (2006)	Quantitative – Cross sectional	Not provided	Found important clinical implication between genders	Data taken from computer records – not problem orientated (psychiatric/non-psychiatric)

Authors and date	Design	Overall Quality	Strengths	Weaknesses
			which arose serendipitously	
Crump et al. (2011)	Quantitative – Cross-sectional	Not provided	Largest study to date (at time of publication)	Possibility of residual confounding – unmeasured confounders
Demyttenaere et al. (2008)	Quantitative – Cross-sectional	Not provided	Data from six countries	Possible recall bias. Possible that results are biased as response rate moderate
Johnson et al. (2014)	Quantitative – Cross-sectional	Not provided	Use of patient level data	Confounding factor – not knowing whether patients took medication as prescribed
Kendrick et al. (2015a)	Quantitative – Cross-sectional	Not provided	Study not subject to recruitment bias and	May have limited analyses of associations between prevalence and

Authors and date	Design	Overall Quality	Strengths	Weaknesses
			large sample size	unemployment rates based on national unemployment rates rather than regional
Kendrick et al. (2015b)	Quantitative – Cross-sectional	Not provided	Participating practices were relatively representative in terms of population, age, gender and deprivation	Clinical data recording probably incomplete and used aggregated data across practices
Laaksonen et al. (2012)	Quantitative – Cohort study	Not provided	By using register based data on prescriptions able to avoid bias arising	Possibility of reverse causation

Authors and date	Design	Overall Quality	Strengths	Weaknesses
			from self-reports of both working conditions and mental health problems	
Lawrenson et al. (2000)	Quantitative – Cross-sectional	Not provided	Used data from 151 GP practices	Does not reflect on study limitations
Lewer et al. (2015)	Quantitative – Cross-sectional	Not provided	Data from 27 European countries	Possible causal inference due to cross-sectional design
Malhi et al. (2014)	Quantitative – Cross-sectional	Not provided	Interesting study aims – how GPs decide on treatment choices for depression	GP ratings done retrospectively, could introduce recall bias
Martin et al. (1997)	Quantitative – Cross	Not provided	Tested for and	Self-report data limited by lack of

Authors and date	Design	Overall Quality	Strengths	Weaknesses
	sectional		discussed confounders	information validity
Moore et al. (2009)	Quantitative – Cross sectional.	Not provided	Data on both diagnosis and prescribing in GPRD very reliable	Unable to control for patient level confounders
Morrison et al. (2009)	Quantitative – Cross-sectional	Not provided	Large sample, high quality data	Data not linked to patient or diagnosis
Patten et al. (2007)	Quantitative – Cross-sectional	Not provided	Representative sample of practicing physicians	Reasons for treatment recommendations not formally assessed – cannot confirm if diagnosis is correct
Poluzzi et al. (2004)	Quantitative – Cross-sectional	Not provided	First study to provide prevalence data in	No information about diagnosis available on database

Authors and date	Design	Overall Quality	Strengths	Weaknesses
			primary health care in Italy	
Pulkki-Raback et al. (2012)	Quantitative – Cross-sectional	Not provided	Used set of well-established risk factors for mental health problems	May have missed people with mild symptoms. Some antidepressants used for non-psychiatric conditions
Read et al. (2014)	Quantitative – Cross-sectional	Not provided	Large number of possible causal beliefs for participants to select from	Possible biased sample – people with a more biogenetic explanation of depression
Ruiz-Doblado & De La O Caraballo-Camacho (2002)	Quantitative – Cross-sectional	Not provided	Used official data base information	Study does not mention its limitations or generalizability

Authors and date	Design	Overall Quality	Strengths	Weaknesses
Spence et al. (2014)	Quantitative – Cross-sectional and Longitudinal	Not provided	Quality data representative of the UK	Only accounts for total number of antidepressants prescribed and not reasons
Virtanen et al. (2007)	Quantitative – Cross-sectional	Not provided	Adjusted analyses, largely able to control for possible confounding effects on perceptions of work stress	Association may actually reflect between disorder and symptoms not association between mental disorder and perceived work stress
Virtanen et al. (2008)	Quantitative – Cross-sectional	Not provided	Register based data, avoided bias due to method variance and recall problems	Limited data – only those unemployed who achieved public sector subsidized jobs

Table 2. Quality assessment for qualitative and mixed method studies

Authors and date	Design	Overall quality score	Strengths	Weaknesses
Macdonald et al., (2009)	Qualitative	++	Clearly presented findings through a framework approach	Researcher(s) role not discussed and any possible effects on data collected
Malpass et al., (2011)	Qualitative	++	Data collection appropriate, methods clearly described including follow-ups	Role of researcher(s) not explained in any level of detail
Morrison et al., (2008)	Mixed methods	75%	Large number of practices	Little reflection on context bias and how findings relate to context in general

Data synthesis

Due to the studies being heterogeneous it was not possible to conduct a statistical analysis. Therefore, a narrative synthesis was used following the guidance from Popay et al. (2006). The study findings were read and re-read and overarching themes emerged during this iterative process. A theoretical model was not developed as Popay et al. (2006) suggests as the findings from the studies fitted into a biopsychosocial model, and within these underpinning perspectives, sub-themes were developed.

Results

Twenty-six studies were included in this review (see Figure 1 for an overview of the process of study selection). Studies were conducted between 1997-2015. Of the 26 studies, 23 were quantitative, 2 were qualitative and 1 was a mixed methods study. The studies were carried out across different countries of which many were European. One study was carried out in Australia, one in New Zealand and another in Canada. Many of the quantitative studies used a cross sectional design, whilst one was a cohort study and another a prospective cohort study. The largest sample used data from just under seven million Swedish adults. The smallest sample was from one of the qualitative studies, which had 19 participants.

Data from the studies was extracted and incorporated into a data extraction table (see Table 3). Information in the table includes: authors and date, study population, study objective, study design, measures/analysis used and key findings/themes.

Table 3. Data extraction table

Authors and date	Study population	Study objective	Study design	Measures/analysis used	Key findings/themes reported
Ambresin et al. (2015)	789 participants from Australian GP practices.	To extend an understanding of the factors that may be driving the increase in antidepressant use.	Quantitative – Cross-sectional	Length of antidepressant use. Depression diagnosis (CIDI[a]). Depression severity (PHQ[b]). SPI[c]. PSQ[d]. SAPAS[e]. GPAS-2[f] PRIME MD[g]. TiPs[h]. SF12HQ[i]. Logistic regression.	Long-term use of antidepressants was associated with depression; using SSRIs[j]; sedatives, & antipsychotics; long-term illness; poor health; adverse life events; GP factors; self-help practices.

Authors and date	Study population	Study objective	Study design	Measures/analysis used	Key findings/themes reported
Bonde, et al. (2009)	21,129 Danish public service workers.	To examine if psychosocial factors at work is related to subscription of antidepressants medications.	Quantitative – Prospective cohort study	Psychosocial factors at work. COPQES[k]. Data on redeemed antidepressants prescriptions. Proportional hazard survival regression.	Antidepressants were prescribed more frequently among women, middle aged, employees with low occupational status and those living alone.
Chan et al. (2006)	117, 461 patients from 12 GP practices in Surrey, UK.	To examine the use of psychotropic medications.	Quantitative – Cross sectional	Descriptive statistics and Chi-squared tests.	Use of psychotropic medication increased with age; antidepressants were prescribed more to females.

Authors and date	Study population	Study objective	Study design	Measures/analysis used	Key findings/themes reported
Crump et al. (2011)	6,998,975 Swedish adults.	To determine whether neighborhood deprivation is independently associated with psychiatric medication.	Quantitative – Cross-sectional	Multilevel logistic regression.	Monotonic trend of increasing prescription of antidepressants associated with increasing neighborhood deprivation.
Demyttenaere et al. (2008)	21,425 participants aged 18 and over from Europe	To examine factors associated with the use of antidepressants and benzodiazepines.	Quantitative – Cross-sectional	Measures – Questionnaire based on CIDI-3.0.[l] Help seeking behavior. PPS[m]. Previous use of	Predictors for use: help seeking; higher age; prevalence of MDE[n]. PPS.

Authors and date	Study population	Study objective	Study design	Measures/analysis used	Key findings/themes reported
				medication. Prevalence estimates. Logistic regression.	
Johnson et al. (2014)	1.2 million patients from 269 GP practices in Greater Glasgow and Clyde area.	To investigate patient factors associated with SSRIs daily dose for depression treatment in general practice.	Quantitative – Cross-sectional	Logistic regression analysis to assess individual predictor variables on SSRI daily dose by standard therapeutic dose versus higher dose.	Higher SSRI doses were significantly associated with: individual practice attended, being prescribed the same SSRI for > 2 years and living in a more deprived area.
Kendrick et al. (2015a)	293,596 primary care patients in the	To determine how GP rates of recording of	Quantitative – Cross-sectional	Time trend analyses. Data from Clinical	Prevalence increased in men associated with

Authors and date	Study population	Study objective	Study design	Measures/analysis used	Key findings/themes reported
	UK.	depression changed and any effects of recession and QoF		Practice Research Datalink.	increased unemployment. GPs used more non-QOF[o]-qualifying symptom or other codes than QOF-qualifying diagnostic codes for new episodes.
Kendrick et al. (2015b)	191,117 primary care patients in the UK.	Effects on antidepressant treatment rates for depression due to NICE guidelines and	Quantitative – Cross-sectional	Time trend analyses. Data from Clinical Practice Research Datalink.	Antidepressant treatment fell following introduction of NICE[p] guidelines and QOF but treatment rates for

Authors and date	Study population	Study objective	Study design	Measures/analysis used	Key findings/themes reported
		QOF 2006.			recurrent depression increased.
Laaksonen et al. (2012)	6,498, 40-60 year old employees of City of Helsinki, Finland.	To examine whether work arrangements and psychosocial working conditions are associated with subsequent mental health problems,	Quantitative – Cohort study.	Questionnaire (done 3 times over 3 years). Data from the prescription register. Cox proportional hazard models.	Associations found: high self-assessed mental strenuous; job dissatisfaction were consistently associated with purchases of antidepressants.
Lawrenson et al. (2000)	1.3 million patients from 151 general practices in UK	Patterns of current antidepressant prescribing.	Quantitative – Cross-sectional	Prescriptions for antidepressants and a diagnosis of depression.	460% increase in SSRI prescribing. Associations: females,

Authors and date	Study population	Study objective	Study design	Measures/analysis used	Key findings/themes reported
	between 1991 - 1996	Comparison of TCAs[q] with SSRIs.		Prescribed doses and dropout rates.	age; adverse life events; chronic diseases or pain.
Lewer et al. (2015)	26,800 people across Europe.	To investigate associations between the use of antidepressants, health care spending and attitudes towards mental health problems.	Quantitative – Cross-sectional	Data collected from face to face interviews. Multivariable logistic regression.	Associations: mentally ill people - 'dangerous' increasing age, being female, unemployed, lower social class, increased spending on healthcare; cannot recover from mental illness; have themselves to blame for their illness.

Authors and date	Study population	Study objective	Study design	Measures/analysis used	Key findings/themes reported
Macdonald et al. (2009)	63 GPs from Scotland	To explore GPs' views about and explanations for the increase in antidepressant prescribing in Scotland.	Qualitative – Interviews (taped & transcribed)	Framework Approach	Appropriateness of prescribing; awareness campaigns; help-seeking; safety of SSRIs; medicalization of unhappiness, social deprivation and breakdown of traditional social structures
Malhi et al. (2014)	1,760 GPs who each identified 4 patients with depression	To examine the management of depression and factors	Quantitative – Cross-sectional	Non-parametric tests. Logistical regressions. Bonferroni adjustment	Co-morbid anxiety, sadness and decreased concentration associated

Authors and date	Study population	Study objective	Study design	Measures/analysis used	Key findings/themes reported
	from their practice	associated with treatment choices.		to control for Type 1 errors.	with psychological therapy. Co-morbid pain and functioning associated with medication.
Malpass et al. (2011)	9 GPs and 10 patients.	To explore: unsaid issues in a consultation for depression. Reasons for non-disclosure; GP-patient relationship.	Qualitative – interviews at beginning and 3 months and 6 months.	Thematic analysis drawing on constant comparative method.	Unvoiced agendas included: preference for treatment, preference to increase dosage, return or worsening of suicidal thoughts.

Authors and date	Study population	Study objective	Study design	Measures/analysis used	Key findings/themes reported
Martin et al. (1997)	A representative panel of GPs in England, Scotland and Wales.	To examine inceptions and discontinuations of antidepressants in general practice.	Quantitative – Cross sectional	Descriptive analysis of data from GPs. Logistic regression analysis of trend.	SSRIs are less likely to be discontinued than tricyclics.
Moore et al. (2009)	Data from GP research database (records of over 3 million patients in UK)	To explore the reasons behind the recent increase in antidepressant prescribing in the UK.	Quantitative – Cross sectional	Data extracted for all new incident cases of depression between 1993 and 2005.	Antidepressant prescribing nearly doubled during the study period. Long-term treatment. Multiple episodes of depression. New cases of depression

Authors and date	Study population	Study objective	Study design	Measures/analysis used	Key findings/themes reported
					rose in young women.
Morrison et al. (2008)	63 GPs in Scotland	To investigate if increase in antidepressant prescribing coincided with a reduction in prescribing of anxiolytics and hypnotics; and to explore GPs explanations of increase.	Mixed methods	Data from Prescribing Information System. Correlation between SPR[r] and DDD[s]. Linear regression. Semi-structured interviews with GPs; Inductive and continuous analysis.	Increase in antidepressant prescribing from 28.9 128.3 million. Positive correlation between levels of antidepressant prescribing and anxiolytic/hypnotic prescribing. GPs treated anxiety with antidepressants.

Authors and date	Study population	Study objective	Study design	Measures/analysis used	Key findings/themes reported
Morrison et al. (2009)	983 general practices in Scotland	To describe and account for, the variation in an age-sex standardized rate of antidepressant prescribing between general practices.	Quantitative – Cross-sectional	Age-sex, SPR were calculated for each practice. Univariate and multivariate regression analyses.	Higher prescribing was associated with more limiting long-term illness, urban location, and a greater proportion of female GPs in the practices.
Patten et al. (2007)	Data taken from Canadian Disease and Therapeutic Index (CDTI) - 652 physicians	To describe reasons for treatment with antidepressants.	Quantitative – Cross-sectional	Descriptive	About one-third of antidepressant recommendations are for reasons other than depression.

Authors and date	Study population	Study objective	Study design	Measures/analysis used	Key findings/themes reported
Poluzzi et al. (2004)	Antidepressant prescription data Cohort of incident patients receiving first prescription in 2001.	To describe pattern of use of antidepressant in primary care in Italy, after admission of SSRIs for reimbursement without restrictions.	Quantitative – Cross-sectional	Analysis of continuity, doses and duration of treatment.	Prevalence of use increased with age. More use in females. Doses and duration of treatment not consistent with recommendations for treatment of depression.
Pulkki-Raback et al. (2012)	1,695 men and 1,776 women from Finland.	To examine whether living alone predicts the use of antidepressants and associated factors.	Quantitative – Cross-sectional.	Questionnaire. Data from National Prescription Register. Logistic regression analysis.	Participants living alone had a higher purchase rate of antidepressants.

Authors and date	Study population	Study objective	Study design	Measures/analysis used	Key findings/themes reported
Read et al. (2014)	1,829 adults from New Zealand prescribed antidepressants.	To test the hypothesis that people exposed to antidepressants and to the doctors who prescribe them favor bio-genetic explanations	Quantitative – Cross-sectional.	Online survey. Regression analyses.	Self-reported efficacy of antidepressants was positively associated with biogenetic causal beliefs, negatively associated with childhood adversity beliefs, and unrelated to adult stress beliefs.
Ruiz-Doblado & De La O Caraballo-Camacho (2002)	Data from Public Primary Care Department of	To monitor the use of antidepressants during a five year period.	Quantitative – Cross-sectional	DDD	Increase of 77.08% Explained by greater use of SSRIs. GPs losing

Authors and date	Study population	Study objective	Study design	Measures/analysis used	Key findings/themes reported
	Pharmacy in an area of Spain with 140,359 inhabitants.				their fear of diagnosing and treating mood disorders.
Spence et al. (2014)	Data from 7,935 GP practices in England.	To look at what indicators influence antidepressant prescribing.	Quantitative – Cross-sectional and longitudinal	National rates of antidepressant prescribing Data from individual practice Cross sectional model Longitudinal model used mixed-effects repeated measures regression.	165% increase of antidepressant. Lower levels of prescribing in London and higher rates in the North East. Associations - Increasing age, female, white and socioeconomic factors.

Authors and date	Study population	Study objective	Study design	Measures/analysis used	Key findings/themes reported
Virtanen et al. (2007)	3,366 participants from Finnish working population.	To examine the associations of work stress with DSM-IV[t] mental disorders and subsequent antidepressant medication.	Quantitative – Cross-sectional	The Health 2000 Study[u]. CIDI. Prescription data. Binary logistic regression.	Associations - high job demands, low job control high job strain. Men with high job demands and high job strain had increased risk of future antidepressant medication.
Virtanen et al. (2008)	48,137 women and 17,071 men in 10 Finnish municipalities.	To examine associations between temporary employment	Quantitative – Cross sectional	Descriptive statistics. Analysis of variance and Pearson X^2 tests. Logistic regression.	Use of antidepressants is more pronounced when temporary employment is unstable.

Authors and date	Study population	Study objective	Study design	Measures/analysis used	Key findings/themes reported
		antidepressant medication.			

[a] CIDI - Composite International Diagnostic Interview (World Health Organisation 1990).

[b] PHQ - Patient Health Questionnaire (Spitzer et al., 1999

[c] SPI - Social Participation Index. (Baum et al., 2000; Densley et al., 2013).

[d] PSQ - Psychosis Screening Questionnaire (Bebbington & Nayani 1995).

[e] SAPAS - Standardized Assessment of Personality – Abbreviated Scale. (Moran et al., 2003).

[f] GPAS-2 General Practice Assessment Survey. (Roland 2002).

[g] PRIME MD - Primary Care Evaluation of Mental Disorders (Spitzer et al., 1994).

[h] TiPs - Trust in Physician scale. (Anderson & Dedrick, 1990).

[i] SF12HQ - Short-Form 12 Health Questionnaire. (Ware et al., 1996).

[j] SSRIs - Selective serotonin reuptake inhibitors

[k] COPQES - Copenhagen Psychosocial Questionnaire. (Kristensen et al., 2005).

[l] CIDI-3.0 – Composite Diagnostic Interview – third version (Kessler, & Üstün, 2004).

[m] PPS - Painful physical symptoms

[n] MDE – major depressive episode

[o] QoF – Quality Outcomes Framework

[p] NICE – The National Institute for Health Care and Excellence

[q] TCAs tricyclic antidepressants

[r] SPR - standardized prescribing ratios

[s] DDD - defined daily doses

[t] DSM-IV – Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition (American Psychiatric Association, 1994)

[u] The Health Study – (Aromaa, & Koskinen, 2004).

Methodological quality of studies

Due to the quality assessment checklist used for the quantitative studies, there was no overall score. No studies were excluded from the review due to low methodological quality because the review aimed to capture the overall strengths of this area of research. However, Tables 1 and 2 provide an overview of the identified strengths and weaknesses of all the studies.

Synthesis of findings

The findings in the studies in this review can be grouped under biological, psychological, and social factors. Therefore, these were identified as the overarching themes. Within the three overarching themes there were 10 sub-themes consisting of:

Biological

- Selective Serotonin Reuptake Inhibitors (SSRIs)
- Demographics
- Other health reasons

Psychological

- Help
- Beliefs
- Perception

Social

- Employment

- Adverse life events
- Health care system
- Community and location

A table representing these themes and associated studies can be found in Appendix E.

Biological

SSRIs

Findings indicated that long-term antidepressant use was associated with the use of SSRIs (Ambresin et al., 2015). However, a study conducted in Australia had mostly English speaking participants and may not reflect other cultures. A study conducted in Spain also explained the rise in antidepressant prescribing by positing that it was due an increased number of prescriptions for SSRIs (Ruiz-Doblado & De La O Caraballo-Camacho, 2002). Two other studies suggested that longer treatment courses were also related to the increase in antidepressant prescriptions (Kendrick et al., 2015b; Moore et al., 2009). Similarly, Demyttenaere et al. (2008) found that a 12 month or lifetime prevalence of a mood depressive episode contributed to the increase in prescribing. Likewise, recurrent episodes of depression were suggested as a reason for the increase (Kendrick et al., 2015b; Moore et al., 2009). People in receipt of prescriptions for the same SSRI, for more than two years was also noted as a factor for the increase (Johnson et al., 2014).

Duration of antidepressant taking and dosage amounts were also found to be connected to the increase in antidepressant prescribing (Poluzzi et al., 2004). More

specifically, Poluzzi et al. (2004) indicated that patients in receipt of newer antidepressants were more likely to receive a higher dosage. When compared to tricyclics, SSRIs were less likely to be discontinued (Martin et al., 1997). However, the study relied on self-report data, which may hinder the validity. This relates to the findings from Macdonald et al. (2005), who identified that GPs perceived SSRIs to be a safer and more economical option. The researchers interpreted their qualitative findings to posit that due to the perceived safety of SSRIs, GPs may be more likely to prescribe them for 'milder' cases of depression. This is similar to the suggestion by Martin et al., (1997) who also considered that patients could tolerate SSRIs better than their older counterpart, of tricyclics.

Demographics

A number of studies found that both increasing age and middle age were a factor for the increase in antidepressant prescribing (Bonde et al., 2009; Chan et al., 2006; Demyttenaere et al., 2008; Lawrenson et al., 2000; Lewer et al., 2015; Poluzzi et al., 2004). Studies that identified increasing age were conducted throughout seven European countries (Chan et al., 2006; Demyttenaere et al., 2008; Poluzzi et al., 2004). However, Chan et al. (2006) used the term psychotropic medication and did not differentiate between the types. Therefore, it may not have been antidepressants that were associated with increasing age but other medications such as hypnotics or anxiolytics. In addition, this study was conducted in England. Although, the study conducted in six European countries did find that increasing age was the second highest predictor for the use of antidepressants (Demyttenaere et al., 2008).

Lawrenson et al. (2000) found that middle-aged women (they defined the range aged 40-65) were twice as likely to be prescribed antidepressants. Similarly,

another study conducted across 27 European countries found that women aged over 40 were at higher odds of taking antidepressants (Lewer et al., 2015). However, even though their sample was large, it was a cross-sectional study so no causal inference can be made. Although, being female was associated across other studies, in that females were more likely to be in receipt of antidepressants or predicted to be more likely to be prescribed them (Bonde et al., 2009; Chan et al., 2006; Lawrenson et al., 2000; Lewer et al., 2015; Moore et al., 2009; Poluzzi et al., 2004; Virtanen et al., 2008). Interestingly, Morrison et al. (2009), found that younger GPs and female GPs were associated with higher prescribing of antidepressants.

Other health reasons

A plethora of other health reasons separate to depression were identified as factors adding to the increase in antidepressant prescribing. In Australia, longer-term use of antidepressants was associated with patients taking antipsychotics or sedatives. The study also found an association between patients' poor or fair self-rated health and longer-term use of antidepressants (Ambresin et al., 2015). Conversely, Spence et al. (2014) found that there were higher levels of antidepressant prescribing in GP practices in areas of better health in England.

Another health factor that was found in three of the studies was pain (Demyttenaere et al., 2008; Lawrenson et al., 2000; Mahli et al., 2014). Antidepressants were found to be prescribed for patients with painful conditions and chronic diseases. Mahli et al. (2014) also found that patients were more likely to be prescribed antidepressants when comorbid pain and decreased overall functioning were present. A mixed methods study conducted in Scotland revealed that GPs were

prescribing antidepressants to patients with anxiety (Morrison et al., 2008). However, in the qualitative part of the study GPs spoke about how sometimes depression and anxiety go hand in hand, hence their choice of treatment. Although, as the authors point out, the prescription data they used was not linked to diagnostic data, so it could not be confirmed by the quantitative data that GPs were prescribing antidepressants for anxiety.

Research in Canada revealed that tricyclics were more often prescribed for non-psychiatric conditions than psychiatric conditions (Patten et al., 2007). The authors concluded that one third of antidepressant prescriptions were used to treat other conditions aside from depression.

Psychological

Help

In Australia, Ambresin et al., (2015) found in their cross-sectional analysis that self-help practices were associated with long-term antidepressant use. They suggested this could be due to their symptoms not reducing after trying other therapies alongside medication. Similarly, a study conducted in Europe also found that help-seeking behaviour was a predictor for the use of antidepressants (Demyttenaere et al., 2008). However, both studies were cross-sectional and may have had confounding factors that were not controlled for. The campaigns to reduce stigma in relation to mental health difficulties prompted some GPs to suggest the success of the campaigns and general acceptance of mental health difficulties have increased,

which in turn have caused some patients to self-diagnose and seek help (Macdonald et al., 2009).

Beliefs

A cross-sectional study of data from 27 European countries predicted that patients who resided in countries where people held beliefs that people with mental illnesses were dangerous were more likely to take antidepressants (Lewer et al., 2015). However, even though this study used data from 27 countries, results could still not be generalizable. Medicalization of negative life events was a belief that some GPs held in Macdonald et al. (2009) qualitative study. The GPs spoke about how they were the first point of contact for many people and patients would report how social and personal problems were affecting them, leading some GPs to suggest that some patients are not depressed but 'sad' but some still treat with antidepressants.

In New Zealand an online survey found that people taking antidepressants held a biogenetic causal belief for depression (Read et al., 2014). This belief was found to be stronger than in patients who were no longer taking antidepressants. The authors did not find support for their hypothesis that holding a biogenetic causal belief would be associated with being prescribed antidepressants. However, they did suggest patients with biogenetic causal beliefs could be more willing to seek an antidepressant prescription and the process of taking antidepressants may help to establish a biogenetic causal belief.

Perception

Although the qualitative study by Malpass et al. (2011) did not make any direct links into the possible reasons for the increases in antidepressant prescribing, it is worth noting their main findings. They suggested that unvoiced agendas in the GP-patient relationship do not always mean that GPs have limited communication skills that they use with their patients, but that GPs may perceive that patients have more autonomy than they display and assume they would voice their thoughts. In contrast, patients may hold the perception that the doctor is the professional; therefore, they may not voice their thoughts.

Social

Employment

Antidepressant usage was found to increase in men in Finland with lower occupational status, especially when it was temporary employment (Virtanen et al., 2008). Similarly, Bond et al. (2009) found the same, although they did not indicate whether the association was higher in males or females. Another study conducted in Finland (Laaksonen et al., 2012) revealed that the strongest associations for purchase of antidepressants were job dissatisfaction and having a mentally strenuous job. An earlier study conducted in Finland (Virtanen et al., 2007) suggested that people with high job demands and job strain were more likely to receive antidepressant prescriptions in the future. However, three of these studies were conducted in Finland and one in Denmark and the results may not be generalizable.

An inability to work and having benefits as the main source of income was found to be associated with long-term antidepressant use in one Australian study (Ambresin et al., 2015). Similarly, unemployment was noted in three studies as a factor for the increase in antidepressants (Kendrick et al., 2015a; Lewer et al., 2015; Virtanen et al., 2008). Kendrick et al. (2015a) found a significant correlation between men and unemployment but not for females. Findings from a study conducted across 27 European countries also found that not being employed or taking care of the home were predictors for taking antidepressants (Lewer et al., 2015). The same study also suggested that a difficulty in paying bills was a predictor.

Adverse life events

Adverse events, for instance bereavement or divorce, were found to be associated with patients receiving antidepressant prescriptions for the first time (Lawrenson et al., 2000).

Healthcare system

Longer consultation times and patients' perceptions that GPs were more helpful were both associated with long-term antidepressant use in Australia (Ambresin et al., 2015). However, the authors do recognise that the directions of associations suggested in their study could not be determined due to the cross-sectional design.

The introduction of the quality outcomes framework (QOF) in the UK in 2004, meant that GPs had to assess the severity of depression in patients using questionnaires and assign to diagnostic categories. Kendrick et al. (2015a) suggested

that GPs were not always assigning diagnostic codes to patients but symptom codes due to a reluctance to assign 'labels' to patients. Therefore, this may have meant that even though patients were not diagnosed with depression, they may have been prescribed antidepressants due to their symptoms, but this would not have been captured in depression prevalence data. Research in Scotland revealed statistically significant associations between higher doses of SSRIs and the type of GP practice (Johnson et al., 2014). However, it is unclear what type of characteristics of the GP practice, contributed to higher dosage prescriptions. A strong association was found between the regular use of antidepressants and countries where more money was spent on healthcare, in Europe (Lewer et al., 2015).

Community and location

People that lived alone were found to be more likely to receive prescriptions for antidepressants in two studies (Bonde et al., 2009; Pulkki-Råback et al., 2012). In a similar vein, the breakdown of traditional social structures was cited by some GPs as a contributor to the increase in antidepressant prescribing (Macdonald et al., 2009). A study identified that living in deprived neighbourhoods was associated with psychiatric medication (Crump et al., 2011). However, the study found a stronger relationship between antipsychotics and neighbourhood deprivation than for antidepressants, which indicated a weaker association. The authors did acknowledge that due to the nature of the study there could have been confounding factors although they did adjust for some sociodemographic factors. Another study also found that neighbourhood deprivation was associated with higher doses in antidepressants (Johnson et al., 2014). People's self-perceptions of being in a lower social class were revealed as a predictor of taking antidepressants (Lewer et al., 2015).

Some GPs believed that the success of stigma awareness campaigns had helped to reduce the stigma of mental health difficulties resulting in patients being more likely to visit their GP if they had depression symptoms (Macdonald et al., 2009). Living in an urban location was used to explain the variation in antidepressant prescribing in Scotland; with higher levels of prescribing in urban areas and cities compared to in rural areas (Morrison et al., 2009).

Discussion

This review aimed to identify reasons for the increases in antidepressant prescribing globally and to highlight any potential clinical implications. Findings from the reviewed studies were categorised into biological, psychological and social reasons for the increases.

Many studies revealed that the introduction of SSRIs had influenced a greater use of antidepressants, with SSRIs appearing to be the antidepressant of choice for physicians to prescribe. It was noted that SSRIs were deemed to be the safer alternative to older antidepressants (Macdonald et al., 2005). Indeed, other research found that GPs were confident of the benefits of antidepressants (Hyde et al., 2005). This may have contributed to why patients were on courses of antidepressants for longer than recommended (Kendrick et al., 2015b; Moore et al., 2009). This was particularly apparent when patients were prescribed the same SSRI for longer than two years (Johnson et al., 2014). These reasons are consistent with other research, which has questioned whether or not patients are being prescribed antidepressants for longer than necessary (Burton et al., 2012). Findings from this review are in line with other research findings, which have suggested that regular reviewing of patients

taking antidepressants should be undertaken (Johnson et al., 2012; Sinclair et al., 2014).

Patient demographics were a prominent focus for a number of the studies reviewed. Age was revealed to be a significant contributor, with findings suggesting that there was a higher likelihood of patients receiving antidepressant prescriptions as they got older (Bonde et al., 2009; Chan et al., 2006; Demyttenaere et al., 2008; Lawrenson et al., 2000; Lewer et al., 2015; Poluzzi et al., 2004). Being female both as a patient and as a physician seemed to be associated with increases in antidepressant prescribing. A number of studies indicated that females were more likely to receive antidepressants than males (Bonde et al., 2009; Chan et al., 2006; Lawrenson et al., 2000; Lewer et al., 2015; Moore et al., 2009; Poluzzi et al., 2004; Virtanen at al., 2008; Morrison et al., 2009). However, being a female physician was only mentioned in one study as a factor (Morrison et al., 2009) so this finding may not be generalizable to all physicians.

Antidepressants were found to be prescribed for many conditions other than depression, or to be prescribed for co-morbid conditions. Patients who were already taking antipsychotics and/or sedatives were more likely to also be taking antidepressants (Ambresin et al., 2015). Painful conditions which impacted upon an individual's overall day-to-day functioning was another reason for antidepressant prescriptions (Demyttenaere et al., 2008; Lawrenson et al., 2000; Malhi et al., 2014).

Some physicians viewed anxiety and depression as similar conditions, or considered them be co-morbid, prompting them to select antidepressants as the medication of choice (Morrison et al., 2008). These findings are in line with findings from other research where GPs considered antidepressants could be utilised to treat

not just diagnoses of depression but symptoms of depression (Hyde et al., 2005). In addition, this links to another finding in this review where Kendrick et al. (2015a), suggested that GPs did not assign diagnoses of depression but used symptoms of depression in their coding when prescribing antidepressants. Other research showed a third of antidepressant prescriptions were not for diagnoses of depression but for all of these above 'other reasons' (Patten et al., 2007). This finding is consistent with studies which suggest that antidepressants are sometimes used to treat other conditions (Hollingworth et al., 2010; Mercier et al., 2012; Mojtabai & Olfson, 2011).

Patients who took a proactive approach in attempting to manage their symptoms by seeking help were more likely to receive antidepressants (Ambresin et al., 2015; Demyttenaere et al., 2008). Generalised misconceptions that people with a mental illness were dangerous was linked to the prediction that people living in those countries where residents held this belief were more likely to take antidepressants. This may link to the findings from Read et al. (2014), who found that people who believed depression to have a biogenetic cause were more likely to take antidepressants. Similarly, other research found that some GPs would define depression to patients in biological terms so that patients were more likely to accept a prescription for antidepressants (Barley et al., 2011; Kapmeyer et al., 2005). Many GPs held the belief that unhappiness had become 'medicalized' (Macdonald et al., 2005). This relates to the adverse life events that people experience.

Understandably, bereavement and divorce will have an emotional impact upon an individual, and these factors could be considered to contribute to the idea of a medicalization of unhappiness. In addition, it is only realistic to assume that some people who have the inability to work and rely on benefits for their income may

experience stress and anxiety, which may then also be categorised as the medicalization of unhappiness by some GPs. Many studies in this review highlighted adverse life events as factors for the increase in antidepressant prescribing (Ambresin et al., 2015; Kendrick et al., 2015a; Lawrenson et al., 2000; Lewer et al., 2015). On the contrary, even those in employment had a higher probability of being prescribed antidepressants if they had low occupation status, their job was mentally strenuous or they experienced job strain (Laakonsen et al., 2012; Virtanen et al., 2007).

How countries healthcare systems were set up influenced whether or not antidepressants were prescribed. For countries where more money was spent on healthcare, it was more likely for residents to be prescribed antidepressants (Lewer et al., 2015). Furthermore, when patients had longer consultation sessions with their GPs and rated GPs as 'helpful' there was a higher likelihood of receiving antidepressants (Ambresin et al., 2015). This could be linked to findings from Johnson et al. (2014) who found that the characteristics of the GP practice were influential on antidepressant prescribing.

Many studies in this review focused on identifying social factors that may have influenced the increase in antidepressant prescribing. Social isolation and the fragmented nature of societies contributed to the likelihood of people taking antidepressants (Bonde et al., 2009; Macdonald et al., 2009; Pulkki-Råback et al., 2012). Where people live was also found to be associated with the likelihood of taking antidepressants, with those living in deprived areas or urban locations being more regularly prescribed this medication (Crump et al., 2011; Morrison et al., 2009).

Limitations

There were a relatively large number of studies in this review, which may have hindered the interpretation of some of the findings. This is because it was difficult to find comparisons due to the different methodologies employed in the studies. In addition, many of the studies utilised a cross-sectional design, which can present many confounding factors if not controlled for. Furthermore, many of the results showed associations rather than causality. Therefore, even though the review yielded many possible reasons for the increase in antidepressant prescribing, it is unfeasible to assess causality. Moreover, some studies used self-report methodology, which may bring into question the validity of findings. Finally, the quality assessment used for the quantitative studies, whilst it had construct validity, did not provide an overall quality score. In addition, the search strategy employed may not have been the most optimal, given that six of the included studies were found via hand searching.

Implications for future research

What is striking from this review is that antidepressants are being prescribed for many reasons other than a diagnosis of depression. However, many of these studies had limited data on what condition/symptoms antidepressants were prescribed for. A longitudinal study conducted over different countries using the same measures, which capture reasons/diagnoses for all antidepressant prescriptions combined with GP and patient demographics may help to provide a clearer understanding of the reasons for the increases in antidepressant prescribing.

Clinical implications

Many of the studies found that patients are taking antidepressants for longer periods of time than recommended. This may link to patients' choice. Conversely, this may reflect that the GP has not reviewed them regularly enough. Therefore, adherence to recommended treatment durations should be reviewed by GPs. In addition, accurate recordings by GPs should be made in order to capture any other conditions/diagnoses that patients have but are in receipt of antidepressants with the absence of a diagnosis of depression.

Conclusions

Overall, this review suggested that there is a plethora of biological, psychological and social factors that may have contributed to the increases in antidepressant prescribing. It seems that the increases may not simply be due to more incidences of diagnosed depression. The review highlighted how females were more likely to be receiving antidepressants or to be prescribed them in the future. Furthermore, the increase in prescribing may relate to more adverse life events and how antidepressants are more likely to be prescribed with increasing age. As healthcare has improved so has the standard of living for most countries, so it is not surprising that people have longevity, which would fit with increasing age as a key factor.

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Part two: Empirical paper

An exploration of GPs experiences of patients who present as 'depressed'

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Objective

This exploratory study aimed to capture GPs experiences of patients that present as 'depressed'. There is a dearth in the current literature surrounding GPs lived experiences of this interaction.

Method

Semi-structured interviews were conducted in order to enable an IPA approach to be utilised. Four GPs were interviewed.

Results

Through the process of IPA, four super-ordinate themes were developed which were 'approach', 'beliefs', 'reactions' and 'what needs to change' and within these were nine sub-themes.

Discussion

The sub-themes were discussed in relation to existing literature and clinical implications were highlighted.

Conclusions

A sense of care for patients was apparent throughout narratives. Alongside this however, was also a sense of frustration. This was specifically linked to lack of support from other services. In addition, the sub-theme of time had many implications. The medicalization of sadness was apparent across all interviews.

Key words

GPs experiences perceptions depression patients IPA exploration qualitative

Introduction

Figures from 7,921 General Practices in England reveal depression as one of the three illnesses with the highest prevalence rates (Health and Social Care Information Centre, 2014). Therefore, if general practitioners (GPs) are dealing with patients with depression in such high numbers it seems important to understand more about how GPs approach recognising and treating depression. In relation to depression and its treatment, there exists a plethora of research, which has explored possible reasons for increases in antidepressant prescribing in primary care. Factors include GPs' perceptions of depression severity (Kendrick, King, Albertella, & Smith, 2005), lack of available and timely psychological therapies (Hyde, Calnan, Prior, Lewis, Kessler, & Sharp, 2005; Sreeharan, Madden, Lee, Millet, & Majeed, 2013), appropriate prescribing (Cameron, Lawton, & Reid, 2009; Morrison et al, 2009), following guidelines (Smolders et al, 2010), patient characteristics and attitudes (Hyde et al., 2005), GPs approaches to decision making (Crosskerry, 2009; Mears & Sweeney, 2000), GPs characteristics, attitudes and perspectives (Lampe et al., 2013), and patients conceptual models of depression (Karasz et al., 2012).

Evidently, there is a wealth of research identifying how GPs diagnose and treat those presenting with depression but not about what that lived experience is like for GPs. Given that depression is one of the most prevalent illnesses that GPs are presented with, an understanding of GPs subjective experiences may help to inform future treatment practices of depression.

GPs self-perception

Research has attempted to look at how GPs self-perception relates to their prescribing behaviour. GPs self-perception is described as their expectations of if,

and how, they would prescribe. One qualitative study using a grounded theory approach interviewed 20 GPs in Denmark and analysis revealed that GPs had experienced elements of both satisfaction and dissatisfaction in their prescribing behaviours (Henriksen & Hansen, 2004). Dissatisfaction resulted in GPs having their self-image threatened due to a combination of their autonomy been compromised and not living up to their personal ideals. This applied to the GPs ideal view of their self, either as a GP or as a person. The study highlighted how GPs self-perception is central in relation to GPs prescribing behaviour.

Impact upon GPs

Research has shown that the impact upon GPs who work with patients presenting with depression is varied (Andersson, Lindberg, & Troein, 2002). The qualitative study which interviewed 17 GPs from Sweden indicated that some GPs had learned from their patients, with one participant reporting that working with depressed patients had provided him with a sense of identity as a doctor. Other participants reported that working with depressed patients increased their anxiety levels and they found the work straining. It was also highlighted that some participants were reminded of their own painful experiences of depression from their personal life.

Research in Denmark sought to explore GPs processes of understanding patients with emotional problems (Davidsen, 2009). Fourteen GPs in Denmark were purposively sampled and interviewed. The GPs in this study were permitted to provide up to seven talking therapy sessions per patient per year. The researchers used an Interpretive Phenomenological Approach (IPA) for the analysis. They suggested that GPs who frequently provided talking therapy spoke more about their own emotional reactions and how they thought that the patient's problems

manifested themselves in the relationship with the GP. One GP described what might be considered projection, describing how she felt the weight of a patient's emotional problems in her own body. The researcher suggested that GPs who used mentalisation in order to understand their patients better experienced difficult feelings, which influenced their own mental state. Mentalisation is the ability to understand and make sense of one's own and others' mental states and resulting behaviour. It also allows for individuals to understand their own reactions and feelings towards another person (Allen & Fonagy, 2006).

GPs found that dealing with patients' emotions could affect their own emotional stability. They looked for training outside of their own discipline to support them with this. Davidsen (2011) suggests that future research should investigate GPs need for support when encountering emotionally stressful situations with patients. Maxwell (2005) interviewed 20 GPs and 37 female patients of the GPs, in Scotland using semi-structured interviews. She discussed how GPs having to manage depression in their patients may extend the boundaries of their professional roles, as participants recognised what they were dealing with was the effects of non-medical problems. Accordingly, (Maxwell, 2005) went on to suggest that future research should focus on gathering a greater understanding of the range of emotional problems that GPs encounter.

GPs responses to patients who did not respond to antidepressants

One focus of research has concentrated on how GPs constructed depression and managed patients that did not respond to antidepressants (McPherson & Armstrong, 2009). Purposive sampling was used to recruit 20 GPs in London, UK to talk about their experiences. One theme that was found in the study was loss of empathy, GPs

talked about feeling burdened and a sense of 'heart sink'. When GPs were asked to consider patients that had not responded to treatment, they spoke about patients with negative personality characteristics. Similarly, patients who had not responded to treatment had left some GPs feeling hopeless and unsympathetic.

Chew-Graham, Mullin, May, Hedley, & Cole (2002) interviewed 35 GPs in England. Their qualitative study used a constant comparative approach and analysis highlighted how some GPs talk about needing stability and emotional energy to deal with depressed patients. The authors note that some GPs are stressed and might be mildly depressed themselves, which makes managing depressed patients more difficult. The study also found that GPs could feel drained and frustrated when dealing with these patients.

GPs management of depression

A systematic review using thematic analysis (McPherson & Armstrong, 2012) identified four main themes in relation to how GPs manage depression in patients.

The first theme highlighted the importance of negotiating the nature of depression, which related to the tension between seeing depression as a normal response to life events and seeing depression within a biological model which links to 'curability'.

The second theme 'detection and diagnosis' highlighted the role of stigma, the importance of knowing the patient, and the role of intuition in detecting depression.

The third theme, interventions, talked about GPs beliefs about prescribing and the difficulties of finding access to psychological therapies for their patients. The

limited nature of training and support was also highlighted in terms of the limited support received from other professionals. GPs also discussed intervening with depressed patients by utilising basic counselling skills.

The fourth theme was about burden, which related to how working with depressed patients placed a demand upon GPs own psychological resources. This theme also highlighted the lack of time that GPs have with patients due to their short consultation times. Finally, these findings reflected the idea of 'signing off sick' which was seen as a secondary gain to patients.

It has been seen that some GPs do experience an emotional impact when consulting with patients who appear depressed. Increased levels of anxiety, feelings of hopelessness and a lack of empathy have all been noted in previous research. This exploratory study aims to provide insight into how people who present as depressed are experienced by GPs.

Although there is a wealth of research exploring how GPs perceive depression in patients and how they understand the concept of depression, there is a lack of qualitative research looking at the lived experiences of GPs. Ultimately, there is a gap in current research, which focuses solely on GPs experiences of treating people with depression and any emotional impact. This study aimed to identify the lived experiences of GPs when patients present as depressed, with the ultimate aim of providing insight into how clinical services can better support any needs that may be highlighted from these research findings. Therefore, an exploratory study using a qualitative approach may capture what the lived experiences of GPs are when presented with patients who are depressed.

Research Aims

To explore the experiences of GPs in their consultations with patients who present as depressed (who may, or may not be clinically depressed).

Research Questions

1. How do GPs experience supporting patients that they perceive to be depressed – what are their initial emotional reactions, what is their thinking and how do they respond?
2. What are GPs support needs in relation to treating depression?

Methods

Design

This exploratory study used semi-structured interviews to generate qualitative data of the phenomenology of the experiences of GPs when in consultations with patients who were/are perceived to be depressed. Please see Appendix M for the interview schedule. Data was analysed using an Interpretative Phenomenological Analysis (IPA) approach.

Participants

GPs in the North of England were the target population in this study. This study was open to all qualified GPs employed in two Clinical Commissioning Groups in the North of England who were able to provide written informed consent to participate. Participants were excluded if they were still undergoing their GP training, or were student doctors on a GP rotation, as they may have not had enough experience with

patients that present as depressed (to provide sufficient information/data to meet the study aims). Additionally, GPs that were on leave due to illness were excluded as partaking in the interview may hinder their recovery, particularly if their illness was due to work-induced stress.

Recruitment

A GP employed in the study location acted as a recruitment co-ordinator and sent a global email to other GPs in their network in the North of England. The email included a participant information sheet (see Appendix I) outlining the study and providing details of the lead researcher in order for them to make contact if they wished to participate in the study, or required further information. A consent form (see Appendix J) was also included within the email. Consecutive sampling was used. The first pool of two GPs that agreed to participate, providing they met the inclusion and exclusion criteria, were accepted to take part in the study. Due to the low numbers of participants that agreed to participate from the initial recruitment drive, a second attempt at recruitment took place, with the lead researcher emailing practice managers directly to identify any GPs that would be willing to participate. Another two participants agreed to take part resulting in a total of four participants. Recruitment was conducted between November 2015 and May 2016.

Participants were all aged over 45. Three were male and one female. All participants had been qualified as GPs between 20 and 30 years. All GPs, with the exception of one, worked full time. The size of practices ranged from 1,500 patients to 16,500 patients. All practices were within different localities including inner city, semi-rural, urban and suburban. In three of the practices, GPs believed the majority

of their patients to be employed. One GP believed the majority of their patients to be unemployed.

Procedure

Interviews were held within the GPs surgeries and took place between January 2016 and May 2016. Interview questions were designed with the purpose of opening the lines of exploration in relation to previous literature. The framework for the topic guide drew on themes emerging from a systematic review on GPs management of depression (McPherson & Armstrong, 2012) and the potential need for additional support (Davidsen, 2011; Roberts et al., 2013). It was decided not to provide a definition of depression as the intention was to identify participants understanding of depression. The semi-structured interview focused on these particular areas:

- Negotiating the nature of depression
- Detection and diagnosis
- Interventions
- Burdens
- Personal experience
- Support

Demographic data (see Appendix L for the demographic from) was also recorded for the purpose of adding context to the themes that emerged from the qualitative analysis. Interviews were recorded and transcribed verbatim.

Data analysis

Data derived from the semi-structured interviews was analysed using an Interpretative Phenomenological Analysis (IPA) approach, following guidelines from Smith, Flowers and Larkin (2009). The recommended sample size suggested by Smith et al. (2009) for doctoral level research using IPA is 4-10 participants. IPA was selected, as the aim of the study was to find out what the lived experience of the phenomena of interest was like, in this case, what it was like for GPs when patients present to them with depression.

The process of data analysis utilised the strategies based upon guidelines by Smith et al. (2009). Following transcription the lead researcher listened to the recordings again. They then immersed themselves into the transcripts to grasp a greater understanding of the participants' understandings and experiences. This involved reading and re-reading of the transcripts and any initial thoughts/observations of the lead researcher were recorded. On an exploratory level, the language and semantic content of the transcript were examined and notes were recorded in the margin of the transcript. Abstraction then took place to develop emergent themes (see Appendix O for examples). The lead researcher then looked for connections across emergent themes and identified patterns for the purpose of developing super-ordinate themes. This led to the researcher then developing sub-themes within the super-ordinate themes. Finally the lead researcher then produced an interpretive account of these themes.

In order to provide independent validation the lead researcher discussed emerging themes, super-ordinate themes and sub-themes with another researcher. This process also took place with a peer.

Researcher position

The positioning of the researcher can have an impact on a study's interpretation of the findings. Often researchers assume either an insider or an outsider position. The insider role in research can allow for participants to be more open with the researcher as they share an identity and a language (Asselin, 2003; Kanuha, 2000). On the contrary, an outsider role can offer more objectivity. Irrespective of the researcher's positioning as an insider or an outsider, it inevitably has a direct impact on the meaning that is co-created between the researcher and their analysis of the participant's experiences (Griffiths, 1998). However, Smith et al. (2009) suggest that when conducting IPA the researcher should adopt a balanced position of somewhere in the middle. This is to enable the researcher to see what it is like from the participant's perspective whilst also being able to be more inquisitive about the participant's responses.

Within this study, the researcher acknowledges that whilst they are not a GP they do have shared experiences of working with people that have been referred for depression. In addition, the researcher has a personal experience of historically receiving a diagnosis of depression. Therefore, the researcher is aware that their previous personal experience of receiving this diagnosis could introduce some bias. Starks and Trinidad (2007) suggest that the researcher should be honest in regards to their own perspective, prior knowledge and assumptions and use the self-reflecting process of 'bracketing' in order to be open to the participants accounts of their

experiences. The researcher used bracketing via completing a reflexive journal noting their pre-understandings of depression prior to undertaking the research and throughout the research process. This enabled the researcher to be transparent and to hopefully lend rigor and credibility to the research and to also help the researcher engage with the GPs understandings of depression. Depression is understood by the researcher in terms of an individual experiencing a difficulty in terms of their daily functioning due to their low mood. Reasons for the low mood cannot always be identified which can sometimes result in leaving a person with a sense of shame or guilt, as they cannot understand why they feel that way. This understanding is influenced by the researcher's own experience.

Ethics

This study was granted ethical approval from the Faculty of Health and Social Care at the University of Hull and approval from the Research and Development support service from the local NHS Trust and Yorkshire and Humber Commissioning Support.

Results

Following analysis, four super-ordinate themes and nine sub-themes emerged from the data (Table 4).

Table 4. Super-ordinate themes and sub-themes following IPA analysis

Super-ordinate theme	Sub-theme
Approach	Decision making
	Time
	Consultation style
Beliefs	Definition of depression
	Perception of patients
Reactions	Emotions
	Looking after self

Approach

The first super-ordinate theme 'approach' encompassed three sub-themes; 'decision making', 'time' and 'consultation style'. This super-ordinate theme related to how GPs approach diagnosing and treating patients who they suspect are depressed. The sub-themes relate to how the GPs decide if a patient has depression, how they would treat it, and the impact of time upon them, their team and other patients.

Decision making

Most participants spoke about how they used both their clinical experiences and personal experiences to help them decide whether a patient had depression;

"you just going to have to look at that person and use your experience with them and how much you know them and how much you experience in your previous, you know in your life, and make a decision" (Participant 1)

"so all this basically I've learned in the field of course...but a lot, most of it is having 250,000 consultations, you know a little bit about depression" (Participant 3)

Participants also talked about how they need to gather a lot of information from the patient and their medical records, which was more of an investigative process. There was also a connection to risk and responsibility that was linked to information gathering;

"I don't leave it there, I say let me try and find out, let me try and do this and get to the bottom of this...I'm going to do all the investigations, I'm going to try and find out" (Participant 1)

"But depends on you know, whether you get all the information really...if there are any red flags, you know...you have to try and find out what the problem is and if you don't, you know, medico legally you can be in quite a bit of trouble" (Participant 2)

Participant 4 looked back at patients' histories to help them decide whether or not someone was depressed or if they had a tendency to present as "miserable". They examined how they had presented before, suggesting that the participant thought that some patients have personality traits which make them appear more "sad";

"you see what you tend to do is you've got a little more detective work which usually involves looking back in their past medical history" (Participant 4)

In relation to risk, one participant spoke about how they need to be aware of their own approach and personal tolerance to risk when assessing whether the patient poses any risk to themselves;

"We've all as individuals got a certain tolerance to risk...I've got a fairly high tolerance to risk actually, so I'll be thinking is this person a risk? In terms of self-harm, so that's something I've struggled with really, because I'm probably, have a natural tendency to play it down somewhat" (Participant 4)

Most participants spoke about how they use objectivity and analysis to problem solve when consulting with patients. This could be interpreted as relating to the nature of GP training and the emphasis it has on understanding problems and finding appropriate medical treatments;

"You need to analyse and sift through it" (Participant 1)

"I think you have to sort of try and remain as objective as you can...I think us GPs, we're sort of trained to problem solve" (Participant 2)

Time

All participants spoke about time and how this can limit them in treating patients with depression. This was related to how it took more time when consulting with patients who presented as depressed. Time was also discussed in terms of the waiting time for patients to be referred into secondary services. Even though time in consultation sessions could be controlled by the GPs, for example through all participants having 10 minute appointment slots, participants all gave patients who they perceived to be depressed more time. This suggests that GPs have an understanding of the complexities of working with patients who present as depressed, demonstrating empathy through giving people that extra time in their appointments. This extra time is given to patients even though GPs realise that this then impacts upon other patients, who may have to wait longer for their appointment, and upon other staff members that have to deal with the overrun;

"I think you just have to invest in time, you know, for that individual...you have to accept it's going to take time and erm, it's a question of how that's going to impact" (Participant 2)

"Needing time. Ten minutes and then writing your notes as well...taken them a few minutes to give you their story, you don't stop them half way through, so it's the time I think. You're going to be running late" (Participant 3)

Interestingly, one participant believed it took more time with patients they perceived not to be depressed, as a diagnosis of depression could be given very quickly. This could suggest that this participant has a difficulty convincing patients who believe they are depressed that they do not meet the diagnosis;

"Just the ones that are not depressed usually take a lot more time" (Participant 4)

Consultation style

The final sub-theme in approach was consultation style. Most participants considered how they changed their style and adapted to the needs of the patient;

"It's not easy to say to somebody, you know what, I think you're depressed...You don't know how that person is going to take it, maybe get insulted, you telling me I'm depressed, I've got a mental illness...you're going to have to be very polite and careful, manipulate the language" (Participant 1)

This related to their choice of language, their talking speed and the timing of telling the patient. This was also closely linked for two participants in how they expressed that it was difficult to tell a patient that they were depressed. One participant spoke about mirroring their patients to help the connection;

"Let's say you walk faster than somebody else, you've got slow down otherwise it's a bit rude isn't it? So if a patient comes in with depression, you have to sort, just slow yourself down a little bit, talk a bit more slowly, bit more quietly, that type of thing" (Participant 4)

These findings seem to suggest that some GPs believe people who are depressed need to be treated with extra sensitivity. At a deeper level, this could also relate to GPs own concerns around the risk of a patient harming themselves and their responsibility to the patient.

Beliefs

The super-ordinate theme of beliefs contained two sub-themes of 'definition' and 'perceptions of patients'. These related to participants' beliefs around the definition of depression and also their perceptions of patients who presented as depressed.

Definition

All participants gave their own definitions of depression. Most identified that depression could be a host of presentations and people that were depressed had a difficulty in everyday functioning. Interestingly, two participants used the word "cloud" (Participants 3 and 4) to describe what it might be like for patients presenting as depressed, which suggests that it is something a person has difficulty to escape from; they just have to wait for the cloud to dissipate. It was also recognised

by some participants that patients would present as tired or just unwell. Many participants spoke of a sense of hopelessness. All participants thought there was a difference between depression and reaction to negative life events.

"Are we really dealing with a, with a depressive sort of thing, an illness and if it is, is it really depressive? You know, clinical depression or is it a reaction to something else?" (Participant 1)

"That kind of brief, fleeting, very, very sad people for err, especially situational, you know, following a bereavement or some trauma...significant number of people would recover within a few months from it, without needing medicalization of a natural event" (Participant 3)

These findings show that although participants use different phrases to define depression, they appear to be coming from the same stance when sharing their perception of depression. They also allude to the notion that sadness can be sometimes be medicalized and treated as depression when it could be an expected reaction to a situation that does require treatment for depression.

None of them shared the official definitions provided in the ICD-10 or DSM V, suggesting they rely on clinical experience, intuition and knowing their patients.

Perceptions of patients

Most participants spoke of what they perceived patients expected of them. Participants 3 and 4 perceived that some patients do not want to get better and that being depressed is functional for them. These two participants referred to the "sick role". However, one participant also considered that this could be a personality issue and that by being depressed they receive wanted attention. This may reflect an underlying sense of frustration relating to how these patients may be taking up valuable consultation time when there are so many other patients who 'genuinely' need care.

Interestingly, one participant's perception of some patients was that they thought they needed to be constantly happy. This GP wanted to change people's expectations of needing to be happy all the time, and this was not limited to patients per se, but was related to people in general;

"People have an expectation that they're going to be happy all the time...life's not like that, sometimes it's pretty shit, sometimes it's good" (Participant 4)

Two participants acknowledged that it took courage for patients to open up to them;

"Sometimes it takes a lot of courage for them to come and talk about it" (Participant 1)

"I think it takes a lot of courage sometimes to actually come in" (Participant 2)

"People sometimes take time to come and sit and tell me something okay? it could be, maybe you know the first time or it could be after the second or third and then you start thinking why are you coming in again and again is there something you want to tell me... and say you know what, I should have told you a long time ago" (Participant 1)

"I think this is a reason why a lot of people don't come, 'cos they're afraid that other people might find out, that work might find out" (Participant 2)

These findings indicate that these GPs acknowledge how difficult it is for some patients to talk about how they are feeling in relation to their mood. The time it takes for patients to bring up their 'real' issue and why people do not go to their GPs if they think they are depressed suggests that the GPs' perceptions of the patients are that they believe they will be stigmatised.

Reactions

The super-ordinate theme of reactions comprised the sub-themes of 'emotions' and 'looking after self'. Most participants reported experiencing a mixture of emotions when dealing with patients that present as depressed. These included both positive

and negative emotions, with two participants also reporting feeling a sense of satisfaction when patients recovered from depression;

"Sort of pulling them out of that, you know, sort of you know, pushing them out there err, so that they can get on with their lives again. I personally find this very, very satisfying experience...it's a very sort of intimate sort of thing really" (Participant 2)

"It's nice to see people get out of the depression, recover and then come in and thank you" (Participant 3)

Participants had sometimes experienced feeling upset when listening to patients, especially if patients are tearful. This suggests that the physical act of seeing somebody cry stimulates an empathic response in these GPs. For one participant, this was particularly apparent when they were more familiar with the patient, reflecting the bonds that can develop between GPs and their patients. Two participants referred to maintaining professionalism, suggesting that whilst maintaining a professional external self, they simultaneously experience an internal emotional reaction;

"You try and dissociate, yes you feel upset, you feel upset because you know that person and they just told you about a very unfortunate, unhappy situation in their life that have made them cry in front of you...But you know you keep that professionally" (Participant 1)

"Recent one I can think if is the domestic abuse case who clearly had a horrendous time and that was quite something to see" (Participant 3)

Conversely, one participant did not remember ever feeling a reaction to a patient. This linked to how they spoke about not thinking about things emotionally if they were not responsible for the situation which appeared to be a coping mechanism;

"You train yourself out of feeling sympathy for people, it just doesn't work... even in your own life...if you're not responsible you don't think about it that much... it's the only way you cope...that doesn't mean to say that you don't care, you care deeply...but I can't remember because I've, that scar's healed" (Participant 4).

Looking after self

Most participants had ways of dealing with stress and difficulties. Half of the participants mentioned the usefulness of peer support, perhaps emphasising their need to be able to share their concerns with others and feel supported. Reflection was another important way of coping. One participant managed stress more effectively now, which they attribute to their experience;

"I think when I was earlier in my career perhaps erm, needing to unwind a bit more, I find it's easier now" (Participant 3)

It appears that all GPs are aware of the need for continued coping strategies in their practice. For example, one participant talked about listening to music before and after surgery;

"The peer support thing, that's a useful thing...it's just helpful to be sort of be able to offload really erm and it's something registrars or trainees sort of have the space to do" (Participant 2)

What needs to change

Two sub-themes were encompassed within this super-ordinate theme; 'resources' and 'systems'. The overarching theme related to GPs perceptions around what is needed to help them treat patients they perceive to be depressed. Furthermore, this related to their perception of how depression is more prevalent now due to shifts in society and changes in wider systems, such as the breakdown of traditional family structures. All participants talked about limited access to other services, as well as not having enough accurate information about other services. Some GPs felt unsupported by other services. Nearly all participants spoke about their perceptions of society losing a sense of community, lack of social support, and how social circumstances are a key contributor to people developing depression.

Resources

All participants expressed frustration with other services, namely specialist secondary services and social services. Some participants recognised that GP

surgeries are often the first port of call for many people when they do not know where to access help and support. This may relate to GPs beliefs that their surgeries are not always the most appropriate place for all patients to seek help. Lack of communication between services and a desire for more effective inter-service working was apparent;

"There was a time when they called the primary health care team, this is how it should be, okay? Not fragmented, where nobody knows who is doing what, bringing back that, that, that beautiful halo of team, where anybody can pick up the phone...all working together" (Participant 1)

"You feel very badly supported by both the psychiatry and the psychological interventions services" (Participant 3)

This could reflect an underlying desire by these GPs to have secondary services, such as talking therapies, within their own practices, with the hope that this would reduce some of the stress and frustration felt when trying to make external referrals to alleviate their patients' distress. Whilst patients have not been accepted to other services, the GPs are still holding the patient and the responsibility for their safety. This point, combined with all the other pressures that GPs have, could contribute to unnecessary stress.

Systems

All participants made reference to how the systems around them have changed significantly, and how these have affected people dealing with emotional difficulties. In this context, the word 'systems' refers to not just community but society as a whole and also family structures;

"There's a lot of stuff out there so it's not really treated you know what I mean? And again I think that's possibly because of the fragmented nature of society these days. We haven't got the sort of immediate family around us...you should have a grandma on every street corner like we used to do" (Participant 2)

"If I could (change) then I think that maybe, think that would be, the social circumstances that people live in" (Participant 3)

These reflections highlight the notion that despite maintaining a level of responsibility over patients' care and safety, GPs cannot have full control of external circumstances and they are equally affected by the wider society.

Discussion

This study aimed to explore GPs' experiences of patients who present as 'depressed'. An interpretive approach using IPA to analyse the qualitative data was used. This allowed the researcher to explore their world. A total of four super-ordinate themes

emerged from the data, and within these themes, nine sub-themes emerged. The super-ordinate themes included 'approach', 'beliefs', 'reactions' and 'what needs to change'. Most findings from this study are in line with findings from other research in the existing literature and will be discussed.

Earlier research has suggested that GPs' self-perception is central in relation to their prescribing behaviour (Henriksen & Hansen, 2004). In this study, GPs' self-perception was not found as a theme per se. However, GPs' approaches encapsulate how they make their decisions, and what was apparent was a combination of experience and the skill of problem solving which could be envisaged as influential in their prescribing behaviour. Similarly, participants in this study often felt frustrated at the difficulties they faced when attempting to refer patients to secondary services. These concerns were shared by the majority of participants and reflect existing research where GPs have highlighted the difficulties in accessing psychological therapies (McPherson & Armstrong, 2012).

This also relates to what some participants would like to change. More support, more information, and a better integration of services were viewed by most participants as an optimal choice of working, which ultimately would likely benefit patients in general, and not just those that present as depressed.

A large amount of time is devoted to patients who present as depressed and each participant spoke about the impact of this. These additional time requirements could culminate in causing increased levels of stress for GPs, which may then impact upon the service that patients receive. This echoes existing research, which noted that short consultation times tend to place demands on GPs' psychological resources (McPherson & Armstrong, 2012). Research involving patients and their perceptions

on their entitlement to time in consultations indicated that when patients needed to explain mental health difficulties, they required more time and would often require subsequent visits before they disclosed their concerns (Pollock & Grime, 2002). This is in line with this study's findings in that some of the GPs acknowledged that often patients do not disclose immediately and that it can take time over a number of consultations. On the contrary Pollock and Grime's (2003) later study exploring GPs' perspectives on managing time revealed that the GPs in their study did not consider time to be a constraint in treating people with depression, although they did state that additional time would be desirable.

All of the GPs in this study thought there was a difference between depression and a reaction to negative life events. Such reactions to life circumstances could be conceptualised as the medicalization of sadness. Findlay and Miller (1994) posit that this is the process whereby a condition becomes defined as an illness by society.

The use of metaphorical language by some of the GPs in this study such as the use of the word "cloud" in defining depression appears to suggest that GPs do not only use a medical discourse when constructing depression. This links to earlier research, which highlighted a shift from the biomedical model of a doctor-patient encounter as GPs are now considering the impact of wider factors upon depression such as circumstantial, social and psychological influences (Ørner, Siriwardena, & Dyas, 2004).

The GPs in this study spoke of having to determine whether or not a patient had clinical depression or if they were just experiencing an understandable reaction to a negative life event. Other research with GPs and psychiatrists revealed that GPs

found it hard to determine if a patient was experiencing negative reactions due to life events, whereby psychiatrists did not share this difficulty, relying on diagnosing symptoms of depression (Davidsen & Fosgerau, 2014). Horwitz and Wakefield (2007) have outlined various social processes, which have all contributed to depression being a 'major social trend'. These included the perception that depression is increasing, how more people are being treated for depression, increases in antidepressant prescribing, and increased media focus on depression. The notion of a medicalization of sadness links to existing research which suggests that GPs are extending the boundaries of their professional roles in dealing with non-medical problems (Maxwell, 2005). In this study GPs spoke about how they were the first point of contact for many people if they needed help. As other research has indicated, GPs are the most accessible resource in the community for those seeking help (Jones & Piterman, 2015).

Hyde et al., (2005) found that patient characteristics and attitudes were an influential factor in the prescribing of antidepressants. Some participants in this present study had perceptions that some of their patients did not wish to get better, as not getting better was serving a purpose. One participant spoke about the idea that some patients have a 'depressive personality' rather than them been depressed. This is similar to earlier research, which found that GPs spoke about patients who had not got better as having negative personality characteristics (McPherson & Armstrong, 2009).

Earlier research indicated that some GPs found working with depressed patients straining (Andersson et al., 2002). However, these findings were not replicated in this study. Although, there was sometimes a sense of frustration, no participants found it straining. Some participants did reveal that they had felt an

emotional impact on themselves when dealing with some patients that were experiencing emotional difficulties. However, these participants shared empathic responses rather than reporting upon a level of strain. The emotional impact seemed even more apparent when GPs witnessed a patient crying, which seemed to invoke a more prominent reaction. Although none felt as though this affected their own emotional stability like some other research (Davidsen, 2011). Some participants in this study did share ways they try to manage any difficulties. Here, peer support appeared important. Level of experience also seemed to be an important factor in being able to de-stress.

The demise of traditional family structures and the re-shaping of today's communities, whereby they are not as cohesive as history informs us, was seen as an influencing factor by some participants in the development of depression or depression like symptoms, showing how GPs cannot maintain complete control over their patients' wellbeing. The GPs in this study spoke about the fragmented nature of society, particularly in terms of how people are less supported by family and communities today, and how this has contributed to the rise in people seeking help via their GP. This is echoed in earlier research where it is suggested that distress would have previously been dealt with by utilising support systems in the community (Woodward & Shaw, 2007). Similarly, Durà-Vilà, Littlewood and Leavey (2011) concluded that people would be less likely to take on the sick role if they could access social support. One participant in this current study openly referred to the 'sick role' suggesting that it was functional for some patients to have this role whether or not they had access to social support, as the sick role provided a positive return in the form of state funded benefits.

Limitations

There are limitations to this study. Due to recruitment difficulties only four GPs agreed to take part. Although they were from different practices across different local areas they were all located within a close geographical area, so findings may not be as relevant to GPs elsewhere.

IPA is interpretative and naturally will have flaws due to the very nature of its design. Other researchers may have interpreted GPs lived experiences differently to the researcher here, and the researcher remained aware of their role throughout the course of analysis. To enhance reliability, the researcher talked through emerging themes with a peer researcher and they provided their perspectives.

Clinical implications

An important element of the 'looking after self' sub-theme related to peer support, which highlights the need for support and supervision in General Practice, something which is already a fundamental requirement in mental health services. It could be more pertinent for newly qualified GPs, as they have less experience. This links to how experience in this study seemed to provide a protective element, with GPs learning more about how to manage demands over time. GPs are dealing with the whole spectrum of possible conditions and as participants have said the GP's surgery is often the first place they will go when they are experiencing any difficulties even if they are not 'medically' related.

Another consideration for clinical implications, which arose as a sub-theme is time. GPs have very short consultation times and all participants admitted time was

an issue, particularly with patients who present as depressed. This, combined with having quicker access to talking therapies, leads to the suggestion of more availability of in-house talking therapies or a form of triage service for those experiencing emotional difficulties. This would have the added benefit of enhancing communication between different professionals.

Future research

An area of future research relates to both clinical implications and a sub-theme that was evident across all participants – time. In order to understand how time impacts other patients, future research should investigate how much time is actually given to those patients who present as 'depressed'. This should be done across a number of practices in different locations nationally, over a specific time period. Results may indicate and support the aforementioned clinical implications.

Despite this study not recruiting GPs that were on leave due to illness; future research may concentrate on exploring GPs' experiences who are on sickness leave, due to work related stress and whether or not this specifically relates to the emotional impact of their work.

Conclusions

Overall, the participants in this study had similar concerns and approaches when consulting with patients that present as 'depressed'. All participants demonstrated a professional stance, but exhibited a strong sense of care for their patients. Most participants admitted that they do occasionally experience an emotional impact, and this is often related to them having built up the doctor – patient relationship over a period of time. A sense of frustration was apparent throughout the interviews in that

participants were often struggling against the system and felt unable to fulfil their role as a professional who solves all patients' problems, due to the lack of support from other services. Participants relied on their experience and intuition to determine if a patient was presenting with depression and did not rely on official definitions or measures to inform their diagnoses or non-diagnoses. The notion of the medicalization of sadness was apparent throughout, and again maybe a sense of GPs' frustration in their limited control over patients' wider circumstances, even though they expressed the desire to do so if they could. Overall, many of the findings from this study reflect many of those in similar existing literature.

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Part Three: Appendices

Appendix A – Journal of Affective Disorders Guidelines for authors

Types of Papers

The Journal primarily publishes:

Full-Length Research Papers (up to 5000 words, excluding references and up to 6 tables/figures)

Review Articles and Meta-analyses (up to 8000 words, excluding references and up to 10 tables/figures)Short Communications (up to 2000 words, 20 references, 2 tables/figures)Correspondence (up to 1000 words, 10 references, 1 table/figure).

At the discretion of the accepting Editor-in-Chief, and/or based on reviewer feedback, authors may be allowed fewer or more than these guidelines.

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It is a general principle of scholarly communication that the editor of a learned journal is solely and independently responsible for deciding which articles submitted to the journal shall be published. In making this decision the editor is guided by policies of the journal's editorial board and constrained by such legal requirements in force regarding libel, copyright infringement and plagiarism. Although electronic methods are available to detect plagiarism and duplicate publications, editors nonetheless rely in large part on the integrity of authors to fulfil their responsibilities within the requirements of publication ethics and only submit work to which the can rightfully claim authorship and which has not previously been published.

An outcome of this principle is the importance of the scholarly archive as a permanent, historic record of the transactions of scholarship. Articles that have been published shall remain extant, exact and unaltered as far as is possible. However, very occasionally circumstances may arise where an article is published that must later be retracted or even removed. Such actions must not be undertaken lightly and can only occur under exceptional circumstances, such as:

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Figures and Photographs of good quality should be submitted online as a separate file. Please use a lettering that remains clearly readable even after reduction to about 66%. For every figure or photograph, a legend should be provided. All authors wishing to use illustrations already published must first obtain the permission of the author and publisher and/or copyright holders and give precise reference to the original work. This permission must include the right to publish in electronic media.

Tables

Tables should be numbered consecutively with Arabic numerals and must be cited in the text in sequence. Each table, with an appropriate brief legend, comprehensible without reference to the text, should be typed on a separate page and uploaded online. Tables should be kept as simple as possible and wherever possible a graphical representation used instead. Table titles should be complete but brief. Information other than that defining the data should be

presented as footnotes.

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Use of word processing software

It is important that the file be saved in the native format of the word processor used. The text should be in single-column format. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. In particular, do not use the word processor's options to justify text or to hyphenate words. However, do use bold face, italics, subscripts, superscripts etc. When preparing tables, if you are using a table grid, use only one grid for each individual table and not a grid for each row. If no grid is used, use tabs, not spaces, to align columns. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the Guide to Publishing with Elsevier: https://www.elsevier.com/guidepublication). Note that source files of figures, tables and text graphics will be required whether or not you embed your figures in the text.

See also the section on Electronic artwork.

To avoid unnecessary errors you are strongly advised to use the 'spell-check' and 'grammar-check' functions of your word processor.

Abstract

A concise and factual abstract is required. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separately from the article, so it must be able to stand alone. For this reason, References should be avoided, but if essential, then cite the author(s) and year(s). Also, non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself.

Graphical abstract

Although a graphical abstract is optional, its use is encouraged as it draws more attention to the online article. The graphical abstract should summarize the contents of the article in a concise, pictorial form designed to capture the attention of a wide readership. Graphical abstracts should be submitted as a separate file in the online submission system. Image size: Please provide an image with a minimum of 531 × 1328 pixels (h × w) or proportionally more. The image should be readable at a size of 5 × 13 cm using a regular screen resolution of 96 dpi. Preferred file types: TIFF, EPS, PDF or MS Office files. See https://www.elsevier.com/graphicalabstracts for examples.

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Highlights are mandatory for this journal. They consist of a short collection of bullet points that convey the core findings of the article and should be submitted in a separate editable file

in the online submission system. Please use 'Highlights' in the file name and include 3 to 5 bullet points (maximum 85 characters, including spaces, per bullet point).

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Keywords

Immediately after the abstract, provide a maximum of 6 keywords, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

Abbreviations

Define abbreviations that are not standard in this field in a footnote to be placed on the first page of the article. Such abbreviations that are unavoidable in the abstract must be defined at their first mention there, as well as in the footnote. Ensure consistency of abbreviations throughout the article.

Acknowledgements

Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

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http://open.mendeley.com/use-citation-style/journal-of-affective-disorders

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2. *Two authors:* both authors' names and the year of publication;

3. *Three or more authors:* first author's name followed by 'et al.' and the year of publication.

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Reference to a journal publication:

Van der Geer, J., Hanraads, J.A.J., Lupton, R.A., 2010. The art of writing a scientific article. J. Sci. Commun. 163, 51–59.

Reference to a book:

Strunk Jr., W., White, E.B., 2000. The Elements of Style, fourth ed. Longman, New York.

Reference to a chapter in an edited book:

Mettam, G.R., Adams, L.B., 2009. How to prepare an electronic version of your article, in: Jones, B.S., Smith , R.Z. (Eds.), Introduction to the Electronic Age. E-Publishing Inc., New York, pp. 281–304.

Reference to a website:

Cancer Research UK, 1975. Cancer statistics reports for the UK. http://www.cancerresearchuk.org/aboutcancer/statistics/cancerstatsreport/ (accessed 13.03.03).

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Appendix B – Methodology checklist for quantitative studies

Quality appraisal checklist

Title:

Author:

Item	Criteria	Score	Comments
Population		**++; +; -; NR; NA**	
1.1	**Is the source population or source area well described?** • Was the country (e.g. developed or non-developed, type of health care system), setting (primary schools, community centres etc.), location (urban, rural), population demographics etc. adequately described?		
1.2	**Is the eligible population or area representative of the source population or area?** • Was the recruitment of individuals, clusters or areas well defined (e.g. advertisement, birth register)? • Was the eligible population representative of the source? Were important groups underrepresented?		
1.3	**Do the selected participants or areas represent the eligible**		

Item	Criteria	Score	Comments
	population or area? • Was the method of selection of participants from the eligible population well described? • What % of selected individuals or clusters agreed to participate? Were there any sources of bias? • Were the inclusion or exclusion criteria explicit and appropriate?		
Method of selection of exposure (or comparison group)			
2.1	**Selection of exposure (and comparison group).** How was selection bias minimised?		
2.2	**Was the selection of explanatory variables based on a sound theoretical basis?** • How sound was the theoretical basis for selecting the explanatory variables?		
2.3	**Was the contamination acceptably low?** • Did any in the comparison group receive the exposure? • If so, was it sufficient to cause important bias?		
2.4	**How well were likely confounding factors identified and**		

Item	Criteria	Score	Comments
	controlled? • Were there likely to be other confounding factors not considered or appropriately adjusted for? • Was this sufficient to cause important bias?		
2.5	**Is the setting applicable to the UK** • Did the setting differ significantly from the UK?		
Outcomes			
3.1	**Were the outcome measures and procedures reliable?** • Were outcomes measures subjective or objective (e.g. biochemically validated nicotine levels ++ vs self-reported smoking -)? • How reliable were outcomes measures (e.g. inter- or intra-rater reliability scores)? • Was there any indication that measures had been validated (e.g. validated against a gold standard measure or assessed for content validity)?		
3.2	**Were the outcome measurements complete?** • Were all or most of the study participants who		

Item	Criteria	Score	Comments
	met the defined study outcome definitions likely to have been identified?		
3.3	**Were all the important outcomes assessed?** • Were all the important benefits and harms assessed? • Was it possible to determine the overall balance of benefits and harms of the intervention versus comparison?		
3.4	**Was there a similar follow-up time in exposure and comparison groups?** If groups are followed for different lengths of time, then more events are likely to occur in the group followed-up for longer distorting the comparison. Analyses can be adjusted to allow for differences in length of follow-up (e.g. using person-years)		
3.5	**Was follow-up time meaningful?** • Was follow-up long enough to assess long-term benefits and harms? • Was it too long, e.g. participants lost to follow-up?		
Analyses			
4.1	**Was the study sufficiently powered to detect an intervention effect (if one exists)?** • A power of 0.8 (i.e. it is likely to see an effect of a given size		

Item	Criteria	Score	Comments
	if one exists, 80% of the time) is the conventionally accepted standard. • Is a power calculation presented? If not, what is the expected effect size? Is the sample size adequate?		
4.2	**Were multiple explanatory variables considered in the analyses?** • Were there sufficient explanatory variables considered in the analysis?		
4.3	**Were the analytical methods appropriate?** • Were important differences in follow-up time and likely confounders adjusted for?		
4.6	**Was the precision of association given or calculable? Is association meaningful?** • Were confidence intervals or p values for effect estimates given or possible to calculate? • Were CIs wide or were they sufficiently precise to aid decision-making? If precision is lacking, is this because the study is under-powered?		
Summary			
5.1	**Are the study results internally valid (i.e.**		

Item	Criteria	Score	Comments
	unbiased)? • How well did the study minimise sources of bias (i.e. adjusting for potential confounders)? • Were there significant flaws in the study design?		
5.2	**Are the findings generalisable to the source population (i.e. externally valid)?** • Are there sufficient details given about the study to determine if the findings are generalisable to the source population? • Consider: participants, interventions and comparisons, outcomes, resource and policy implications.		

NICE (2012). Methods for the development of NICE public health guidance (3rd ed.) Available from: https://www.nice.org.uk/article/pmg4/resources/non-guidance-methods-for-the-development-of-nice-public-health-guidance-third-edition-pdf

Appendix C – Methodology checklist for qualitative studies

Quality appraisal checklist - Qualitative

Title:

Author:

Item	Criteria	Score	Comments
Theoretical approach			
1.	**Is a qualitative approach appropriate?** For example: • Does the research question seek to understand processes or structures, or illuminate subjective experiences or meanings? • Could a quantitative approach better have addressed the research questions?	Appropriate Inappropriate Not sure	
2.	**Is the study clear in what it seeks to do?** **For example:** • Is the purpose of the study discussed – aims/objectives/research question/s? • Is there adequate/appropriate reference to the literature? • Are underpinning values/assumptions/ theory discussed?	Clear Unclear Mixed	
Study design			
3.	**How defensible/rigorous is the research design/methodology?** For example: • Is the design appropriate to the research question?	Defensible Indefensible Not sure	

Item	Criteria	Score	Comments
	• Is a rationale given for using a qualitative approach? • Are there clear accounts of the rationale/justification for the sampling, data collection and data analysis techniques used? • Is the selection of cases/sampling strategy theoretically justified?		
Data collection			
4.	**How well was the data collection carried out?** **For example:** • Are the data collection methods clearly described? • Were the appropriate data collected to address the research question? • Was the data collection and record keeping systematic?	Appropriately Inappropriately Not sure/inadequately reported	
Trustworthiness			
5.	**Is the role of the researcher clearly described?** **For example:** • Has the relationship between the researcher and the participants been adequately considered? • Does the paper describe how the research was explained and presented to the participants?	Clearly described Unclear Not described	

Item	Criteria	Score	Comments
6.	**Is the context clearly described?** For example: • Are the characteristics of the participants and settings clearly defined? • Were observations made in a sufficient variety of circumstances • Was context bias considered	Clear Unclear Not sure	
7.	**Were the methods reliable?** For example: • Was data collected by more than 1 method? • Is there justification for triangulation, or for not triangulating? • Do the methods investigate what they claim to?	Reliable Unreliable Not sure	
Analysis			
8.	**Is the data analysis sufficiently rigorous?** For example: • Is the procedure explicit – i.e. is it clear how the data was analysed to arrive at the results? • How systematic is the analysis, is the procedure reliable/dependable? • Is it clear how the themes and concepts were derived from the data?	Rigorous Not rigorous Not sure/not reported	
9.	**Is the data rich?** For example: • How well are the contexts of the data	Rich Poor Not sure/not reported	

Item	Criteria	Score	Comments
	described? • Has the diversity of perspective and content been explored? • How well has the detail and depth been demonstrated? • Are responses compared and contrasted across groups/sites?		
10.	**Is the analysis reliable?** For example: • Did more than 1 researcher theme and code transcripts/data? • If so how were differences resolved? • Did participants feed back on the transcripts/data of possible and relevant? • Were negative/discrepant results addressed or ignored?	Reliable Unreliable Not sure/not reported	
11.	**Are the findings convincing?** For example: • Are the findings clearly presented? • Are the findings internally coherent? • Are extracts from the original data included? • Are the data appropriately referenced? • Is the reporting clear and coherent?	Convincing Not convincing Not sure	
12.	**Are the findings relevant to the study?**	Relevant Irrelevant	

Item	Criteria	Score	Comments
		Partially relevant	
Conclusions			
13.	For example: • How clear are the links between data, interpretation and conclusions? • Are the conclusions plausible and coherent? • Have alternative explanations been explored and discounted? • Does this enhance understanding of the research topic? • Are the implications of the research clearly defined? **Is there adequate discussion of any limitations encountered?**	Adequate Inadequate Not sure	
Ethics			
14.	**How clear and coherent is the reporting of ethics?** For example: • Have ethical issues been taken into consideration? • Are they adequately discussed e.g. do they address consent and anonymity? • Have the consequences of the research been considered i.e. raising expectations, changing behaviour? • Was the study approved by an ethics committee?	Appropriate Inappropriate Not sure/not reported	
Overall assessment	**As far as can be ascertained from the**	++ +	

Item	Criteria	Score	Comments
	paper, how well was the study conducted? (See guidance notes)	-	

NICE (2012). Methods for the development of NICE public health guidance (3rd ed.) Available from: https://www.nice.org.uk/article/pmg4/resources/non-guidance-methods-for-the-development-of-nice-public-health-guidance-third-edition-pdf

Appendix D – Mixed Methods Appraisal Tool

Types of mixed methods study components or primary studies	Methodological quality criteria	Responses Yes	No	Can't tell	Comments
Screening questions (for all types)	• Are there clear and quantitative research questions (or objectives*), or a clear mixed methods question (objective*)? • Do the collected data allow address the research question (objective)? E.g. consider whether the follow-up period is long enough for the outcome to occur (for longitudinal studies or study components). ***Further appraisal may not be feasible or appropriate when the answer is 'No' or 'Can't tell' to one or both screening questions.***				
1. Qualitative	1.1. Are the sources of qualitative data (archived, documents, informants, observations) relevant to address the research question (objective)? 1.2. Is the process for analysing qualitative data relevant to address the research question (objective)? 1.3. Is appropriate consideration given to how findings relate to the context, e.g. the setting, in which the data were collected? 1.4. Is appropriate consideration given to how findings relate to researchers' influence, e.g. through their interactions with participants?				
2. Quantitative randomized controlled (trials)	2.1. Is there a clear description of the randomization (or an appropriate sequence generation)? 2.2. Is there a clear description of the allocation concealment (or blinding when applicable)? 2.3. Are there complete outcome data (80% or above)? 2.4. Is there low withdrawal/drop-out (below 20%)				
3. Quantitative non-randomized	3.1. Are participants (organizations) recruited in a way that minimizes selection bias? 3.2. Are measurements appropriate (clear origin, or validity known, or standard instrument; and absence of contamination between groups when appropriate) regarding the exposure/intervention and outcomes? 3.3. In the groups being compared (exposed vs. non-exposed; with intervention vs. without; cases vs. controls) are the participants comparable, or do researchers take into account (control for) the difference between these groups? 3.4. Are there complete outcome data (80% or above), and, when applicable, an acceptable response rate (60% or above), or an acceptable follow-up rate for cohort studies (depending on the duration of follow up)?				
4. Quantitative descriptive	4.1. Is the sampling strategy relevant to address the quantitative research question (quantitative aspect of the mixed methods question)? 4.2. Is the sample representative of the population understudy? 4.3. Are measurements appropriate (clear origin, or validity known, or standard instrument)? 4.4. Is there an acceptable response rate (60% or above)?				
5. Mixed methods	5.1. Is the mixed methods research design relevant to address the qualitative and quantitative research questions (or objectives), or the qualitative and quantitative aspects of the mixed methods question (or objective)? 5.2. Is the integration of qualitative and quantitative data (or results*) relevant to address the research question (objective)? 5.3. Is appropriate consideration given to the limitations associated with this integration, e.g., the divergence of qualitative and quantitative data (or results*) in a triangulation design? *Criteria for the qualitative component (1.1 to 1.4), and appropriate criteria for the quantitative component (2.1 to 2.4, or 3.1 to 3.4 or 4.1 to 4.4), must also be applied*				

These two items are not considered as double-barrelled items since in mixed methods research, (1) there may be research questions (quantitative research) or research objectives (qualitative research), and (2) data may be integrated, and/or qualitative findings and quantitative results can be integrated.

Pluye, P., Robert, E., Cargo, M., Bartlett, G., O'Cathain, A., Griffiths, F., Boardman, F., Gagnon, M.P., & Rousseau, M.C. (2011). Proposal: A mixed methods appraisal tool for systematic mixed studies reviews. Retrieved from http://mixedmethodsappraisaltoolpublic.pbworks.com

Appendix E – Themes and subthemes emerging from reviewed studies

Over arching theme	Sub themes	Study findings	Number of studies and citations	Study setting
Biological	SSRIs	Increased use	Ambresin et al. (2015)	Australia
			Ruiz-Doblado & De La O	Spain
		Perceived safety of SSRIs	Caraballo-Camacho (2002)	
		SSRIS less likely to be continued than tricylics	Macdonald et al. (2005)	UK
		Longer treatment courses	Martin et al. (1997)	UK
		12 month or lifetime prevalence	Kendrick et al. (2015b)	UK
		SSRI for more than two years	Moore et al. (2009)	UK
		Recurrent	Demyttenaere et al. (2008)	Europe
		Not consistent with recommendations (dosage & duration)	Johnson et al. (2014)	Scotland
			Kendrick et al. (2015b)	UK
			Poluzzi et al. (2004)	Italy
	Demographics	Increasing with age	Chan et al.(2006)	UK
			Demyttenaere et al. (2008)	Europe
			Poluzzi et al. (2004)	Italy

Over arching theme	Sub themes	Study findings	Number of studies and citations	Study setting
		Middle aged	Bonde et al. (2009)	Denmark
			Lawrenson et al. (2000)	UK
			Lewer et al. (2015)	Europe
		Female	Bonde et al. (2009)	Denmark
			Chan et al. (2006)	UK
			Lawrenson et al. (2000)	UK
			Lewer et al. (2015)	Europe
			Moore et al. (2009)	UK
			Poluzzi et al. (2004)	Italy
			Virtanen et al. (2008)	Finland
		Female GPs	Morrison et al. (2009)	Scotland
	Other health reasons	Sedatives, antipsychotics	Ambresin et al. (2015)	Australia
		Painful physical symptoms	Demyttenaere et al. (2008)	Europe
		Chronic disease or pain	Lawrenson et al. (2000)	UK
		Comorbid pain and overall functioning	Malhi et al. (2014)	Australia
		Anxiety	Morrison et al. (2008)	Scotland
		GP practices in areas with better health	Spence et al. (2014)	England
		Poor/fair self-rated health	Ambresin et al. (2015	Australia

Over arching theme	Sub themes	Study findings	Number of studies and citations	Study setting
		Non-psychiatric conditions	Patten, Esposito, & Carter (2007)	Canada
Psychological	Help	Self-help practices Help-seeking	Ambresin et al. (2015) Demyttenaere et al. (2008) Macdonald et al. (2009)	Australia Europe (6 countries) Scotland

Over arching theme	Sub themes	Study findings	Number of studies and citations	Study setting
	Beliefs	Mentally ill people 'dangerous'	Lewer et al. (2015)	Europe
		Medicalisation of unhappiness	Macdonald et al. (2005)	Scotland
		Biogenetic causal beliefs	Read et al., (2014)	New Zealand
Social	Employment	Low occupational status	Bonde et al. (2009)	Denmark
			Virtanen et al. (2008)	Finland
		Mentally strenuous job	Laaksonen et al. (2012)	Finland
		Job dissatisfaction	Laaksonen et al. (2012)	Finland
		High job demands and job strain	Virtanen et al. (2007)	Finland
		Inability to work	Ambresin et al. (2015)	Australia
		Benefits as main source of income	Ambresin et al. (2015)	Australia
		Unemployment	Kendrick et al. (2015a)	UK
			Lewer et al. (2015)	Europe
			Virtanen et al. (2008)	Finland
		Difficulty in paying bills	Lewer et al. (2015)	Europe
	Adverse life events	Bereavement or divorce	Lawrenson et al. (2000)	UK
	Healthcare system	GP visits longer than 20 mins	Ambresin et al. (2015)	Australia

Over arching theme	Sub themes	Study findings	Number of studies and citations	Study setting
		Rating GP visits as moderately to extremely helpful	Ambresin et al. (2015)	Australia
		More non QOF qualifying symptoms or other codes than qualifying codes	Kendrick et al. (2015a)	UK
		Type of GP practice	Johnson et al. (2014)	Scotland
		Country where more money is spent on healthcare	Lewer et al. (2015)	Europe
	Community and location	Living alone	Bonde et al. (2009)	Denmark
			Pulkki-Raback et al. (2012)	Finland
		Neighbourhood deprivation	Crump et al. (2011)	Sweden
		Social deprivation	Johnson et al. (2014)	Scotland
		Breakdown of traditional social structures	Macdonald et al. (2009)	Scotland
			Macdonald et al. (2009)	Scotland
		Lower social class	Lewer et al. (2015)	Europe
		Success of awareness campaigns (stigma)	Macdonald et al. (2009)	Scotland
		Urban location	Morrison et al. (2009)	Scotland

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title page of the manuscript. Please submit the title page as a separate document within the attachment to facilitate the anonymous peer review process.

Style . Please follow the stylistic guidelines detailed in the *Publication Manual of the American Psychological Association, Sixth Edition*, available from the American Psychological Association, Washington, D.C. *Webster's New World Dictionary of American English, 3rd College Edition* , is the accepted source for spelling. Define unusual abbreviations at the first mention in the text. The text should be written in a uniform style, and its contents as submitted for consideration should be deemed by the author to be final and suitable for publication.

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Abstract. Abstracts are required for research articles, review articles, commentaries, and notes from the field. A structured abstract is required and should be 150 words or less. The headings that are required are:

Objective(s): Succinctly state the reason, aims or hypotheses of the study.

Method (or Design): Describe the sample (including size, gender and average age), setting, and research design of the study.

Results: Succinctly report the results that pertain to the expressed objective(s).

Conclusions: State the important conclusions and implications of the findings.

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- **Research Articles** . Research articles may include quantitative or qualitative investigations, or single-case research. They should contain Introduction, Methods, Results, Discussion, and Conclusion sections conforming to standard scientific reporting style (where appropriate, Results and Discussion may be combined).
- **Review Articles** . Review articles should focus on the clinical implications of theoretical perspectives, diagnostic approaches, or innovative strategies for assessment or treatment. Articles should provide a critical review and interpretation of the literature. Although subdivisions (e.g., introduction, methods, results) are not required, the text should flow smoothly, and be divided logically by topical headings.
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Appendix G – Ethical approval for study

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Appendix H – R&D approval for study

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Appendix I – Participant information sheet

Participant Information Sheet

Title of the study: An exploration of GPs experiences of patients who present as 'depressed'

We would like to invite you to take part in our research study which is looking at the experiences of GPs when patients present to them that are 'depressed'. Before you decide if you want to participate we would like you to understand why this research is being done. We would also like you to understand what it will involve for you if you decide to participate. You can talk to others if you would like before you decide if you want to take part. You can also ask the researcher any questions prior to agreeing to take part. You can email the researcher Michelle Connor. Email address is provided on page 4 of this information sheet.

What is the purpose of the study?

This exploratory study should bring a general awareness of how people who present as depressed are experienced by GPs. The study may also provide evidence that denotes that GPs are in more need of support in relation to mental health issues. It may also highlight that GPs should receive supervision, as do clinicians in mental health services. Ultimately, if training needs are highlighted along with the need for further support; and if these needs are met, then this may have a positive impact upon patients that present as depressed.

Why have I been invited?

As a qualified GP working within the Hull and East Riding area you may fulfil the criteria to take part in the study.

Do I have to take part?

No, participation is completely voluntary. If you decide to take part you will be asked to sign a consent form to indicate that you agree to take part. You are free to withdraw from the study up to the point where the study results are analysed and written up and you do not have to give a reason for this. Your decision will not affect your legal rights.

What will happen if I decide to take part?

If you agree to take part please leave your contact details at the end of this information sheet (page 5) and email it back to the lead researcher: Michelle Connor – m.connor@2013.hull.ac.uk. You will then be contacted by the researcher within 48 hours. The researcher will check your eligibility for the study by asking you a few short questions. You will also be given the opportunity to ask any questions before agreeing to take part. If you agree to take part, the researcher will arrange a meeting at a convenient place and time. You will have to answer some short questions about you, for example your gender, your age and size of GP practice. You will then have a conversation with the researcher which will last around 60 minutes. The researcher who is a trainee clinical psychologist will be asking you some more questions about your experiences of managing/treating people who present to you as 'depressed'. You will also be asked about any personal/close experiences of depression. The discussion will be audiotaped. There are no right or wrong answers and we are only interested in your opinions, your beliefs and your experiences of patients that present as depressed.

What are the possible disadvantages and risks of taking part?

Participating in the study will require 60 minutes of your time and this may be inconvenient for you. Some people may experience emotional distress when they talk about their experiences with patients who present as 'depressed' or their own personal/close experiences of depression. If this happens to you the researcher will offer support and contact your Responsible Officer.

What are the possible benefits of taking part?

We cannot promise that you will have any direct benefits from taking part in the study. However, it may be useful to take part in the study as part of your continuing professional development (CPD) requirements, as you will be participating in research and reflecting upon your own practice.

What will happen if I decide I no longer wish to take part?

You are free to withdraw from the study before the results are analysed and the study is written up without giving any reason. This will not affect your legal rights.

What if there is a problem?

If you have a concern about the study you can contact the researcher or their supervisor who will do their best to answer your questions.

Will my taking part in this study be kept confidential?

Yes, all the personal information that you provide will be kept strictly confidential. Data from the interview including demographic information and notes from transcribing will be held securely in the researcher's supervisor's locked office. Audio recordings will be transferred from the Dictaphone to a secure encrypted memory stick, which will also be locked securely away in the supervisor's office. Any information that could be used to identify you will not be used in the research. The people who decide to participate will be given a code to protect their anonymity. After the research is completed all the audio recordings will be destroyed. The only time information cannot be kept confidential is if you disclose something that suggests that you or someone else is at risk of serious harm. If this happens during the interview the researcher will need to contact appropriate authorities to ensure that you and other people are safe. It is unlikely that this will happen and the researcher will try to discuss this with you.

What will happen to the results of the study?

Once the data has been analysed you will be invited to review the themes that have arisen from your individual interview to comment upon or amend them but this is voluntary. After the study is completed if you wish you will be given written feedback about the results of the study. We will also invite you to make comments on the results if you wish but this also will be completely voluntary. Then the results will be written up and submitted for publication in an academic journal. Some direct quotes from your interview may be used in the write up. Your personal details and any identifiable data will not be included in the write up.

Who is organising and funding the research?

This research is being undertaken as part of a doctoral research project in Clinical Psychology. The research is funded and regulated through the University of Hull. Some relevant sections of data collected during the study which are relevant to taking part in this research may be looked at by responsible individuals from the University of Hull or from regulatory authorities to ensure that appropriate guidance was followed by the researcher.

Who has reviewed the study?

The study is reviewed by an independent organisation which is called a Research Ethics Committee at The University of Hull. The Research Ethics Committee protects the interest of people who participate in research.

If you have any further questions, comments or queries, please don't hesitate to contact Michelle Connor. Thank you for taking the time to read this information.

Yours Sincerely,

Michelle Connor
Trainee Clinical Psychologist

Supervised by,

Dr Nick Hutchinson
Clinical Psychologist

Further information and contact details

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E-mail: n.hutchinson@hull.ac.uk

If you are interested in taking part in the study please leave your contact details in the space provided below and email it back to the researcher's (Michelle Connor) university email address (on page 4). You will be contacted by the researcher to check eligibility criteria and to answer any questions you may have. After agreeing to take part in the study the researcher will contact you to arrange a meeting at a convenient place and time.

Name:

.....
.....

Address:

.....
.....

.....
.....

.....
.....

.....
.....

Telephone Number:

.....
.....

Mobile Phone Number:

.....
.....

E-Mail address:

.....
.....

How would you prefer to be contacted?

.....
.....

Are there any times of the day that you prefer to be contacted?

.....
.....

Do you have any further comments?

.....
.....

.....
.....

Date:.....

Thank you very much for your interest!

Appendix J – Consent form

Appendix 5

CONSENT FORM

Title of Project: An exploration of GPs experiences of patients who present as 'depressed'

Name of Researcher: Michelle Connor

Please initial boxes

1. I confirm that I have read and understand the information sheet dated 21/03/2015 (Version 1.2) for the above study. I have had the opportunity to consider the information. If I had any questions, they have been answered satisfactorily. ☐

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason up to the point of data analysis and transcription, without my legal rights being affected. ☐

3. I agree to the use of audiotaping with the use of verbatim quotation. ☐

4. I confirm that direct quotes from the interview may be used in future publications and understand that they will be anonymised. ☐

5. I agree that my Responsible Officer may be contacted if the lead researcher believes I may be experiencing distress during the interview BUT only with my consent. ☐

6. I agree that the lead researcher may contact my Registered Manager if I disclose any details of poor practice or misconduct. ☐

7. I agree to take part in the above study. ☐

Name of participant	Date	Signature
_____	_____	_____
Name of person taking	Date	Signature

consent

_____	_____	_____
_	_	_

When completed: 1 for participant; 1 for researcher site file.

Appendix K – Email to GPs

Subject: Have your say, get involved with research at the University of Hull

Dear GP,

My name is Michelle Connor and I am a Trainee Clinical Psychologist currently undertaking my Doctorate in Clinical Psychology at the University of Hull. I would like to invite you to take part in our research study which is looking at the experiences of GPs when patients present to them that are 'depressed'. This exploratory study should bring a general awareness of how people who present as depressed are experienced by GPs. It will focus on how GPs experience supporting patients that are depressed. Emphasis will be on GPs initial emotional reactions and to explore GPs thinking and their responses. Results may reveal whether or not GPs are in need of additional support in relation to mental health issues; and if so, what types of support would be most helpful.

This research has been granted ethical approval from the Faculty of Health and Social Care at the University of Hull and approval from the R and D support service, North Yorkshire and Humber Commissioning support.

Please find a more detailed information sheet, contact information and consent form attached to this email.

Thank you for your time

Michelle Connor

Appendix L – Demographic form

Demographic Form: Participants

Title of Project: An exploration of GPs experiences of patients who present as 'depressed'

Name of Researcher: Michelle Connor

Participant number:

I would like to start by asking you some questions about you and the practice within which you work.

1. **What is your age in years?**

.....

2. **What is your gender?** Please circle the one that applies to you.

Male / Female

3. **What is your ethnic background?** Please circle the one that applies to you.

White British

Other White Background (please specify) .....

Multiple Ethnic Background (please specify) .....

Asian

Asian British

African/Caribbean

African British/Caribbean British

Other Ethnic Group (please specify) .....

4. **How many years have you been qualified as a GP?**

.....

5. **What is the location of the GP practice within which you work?** Please circle the one that applies to your practice

Inner city

Urban

Suburban

Semi-rural

Rural

6. **Do you work full or part time within the practice?**

.....

7. **What is the size of the GP practice in which you work? (approximate number of registered patients)**

.....

8. **How many other GPs work within your practice?**

.....

9. **Are the majority of your patients employed or unemployed? Please circle your answer**

Employed

Unemployed

10. **Who is your Responsible Officer and where are they located?**

.....

11. **Who is your Registered Manager and where are they located?**

.....

12. **Please indicate any special clinical interests you have? (for example, mental health, paediatrics)**

.....

Thank you very much for taking the time to answer these questions!

Appendix M – Interview schedule

Interview Schedule

This interview schedule will not be strictly followed in sequence, but will be used to guide questions and the general direction of the interview.

Research questions

How do GPs experience supporting patients that they perceive to be depressed – what are their initial emotional reactions, what is their thinking and how do they respond?

What are GPs support needs in relation to treating depression?

Opening statement:

I'd like to talk about your experiences of consulting with people who you think present as depressed.

Topic guide

Negotiating the nature of depression

What is your definition of depression?

Detection and diagnosis

How confident are you in recognising the symptoms of depression?

Interventions

How confident are you in treating depression?

What limits you in treating patients that present as depressed?

If you could change three things in relation to treating depression, what would they

be?

Burdens

How do you find this clinical area?

Do you have more than your 'fair share' of patients who you see that present as depressed compared to other GPs in your practice?

What are your overall positive/negative experiences in treating patients that are depressed?

What do you find different when a patient presents as depressed at an initial consultation compared to a patient that repeatedly presents as depressed across numerous consultations?

How do you feel when someone presents to you as depressed?

Can you describe any times when you felt an emotional impact on yourself when a patient has presented as depressed?

Support

What are your support needs when treating patients that present as depressed?
What are your current thoughts on support at the moment?
Have you any thoughts on how you could be better supported?

Appendix N – Epistemological statement

Epistemological statement

How we explore the world influences the way in which we conduct research. Researchers are required to acknowledge their position. For both the review and empirical paper I chose to take an interpretive approach, which came from an underlying constructivist position. For the review, this was more difficult due to the number of quantitative studies. However, I was able to conduct a narrative synthesis at an interpretive level. For the empirical I wanted to understand the participants world as they saw it as individuals. To guide this idiographic approach and to gain an idiographic understanding of the participants I selected Interpretive Phenomenological Analysis IPA developed by Smith, Flowers and Larkin (2011). This meant that I could engage with GPs and access their world and their experiences. This fits with the research question, which identifies the research as being 'an exploration of'.

I wanted to understand GPs lived experiences when treating patients who present as 'depressed', so that I could then describe it and subsequently ascribe meaning to their experiences through my own interpretations. Although I wanted to understand their world and experiences, it would be impossible to do this without imposing some of my own thoughts and considerations through the very nature of interpretation. However, it is acknowledged that this is inevitable and is part of the process of IPA. The important thing is to remain aware of this process and to remain aware of my role as a researcher. Therefore, through reflection on my own assumptions, and then discussing them with another researcher and a peer, I was able to address any obvious influences on the interpretation.

Appendix O – Example of data analysis for Participant 2

Emerging themes	**Original transcript – participant 2**	**Exploratory comments**
Choices biological, psychological – social?	P2- Well you, I suppose you could go for the biological or psychological model really, erm, I think this is one of the problems of sort of coming up with a definition of depression in primary care, erm, simply because your book definition may not have any real relationship to what you see in a practical sense really, because you will get people coming into you saying, erm and our classic one is, 'I don't know what's wrong with me, my wife sent me here because she doesn't think I'm very well'	2 choices of definition What it says in the book does not always equate to what you see in the consulting room Tired = symptom
Don't need the book to diagnose?		
Something's wrong		

Emerging themes	Original transcript – participant 2	Exploratory comments
Experience Investigate Detective work Cannot function	erm 'I feel tired all the time', that's the sort of classical one really, The presentation can actually be sort of quite different, erm, I guess you have to sort of (sigh) I suppose use your experience really to try and sort of gleam further information from them really, erm, but really, you know to put it in a broad context, my sort of definition of depression would be somebody who presents in an open and inverted commas, a distressed frame of mind, to the extent that its affecting them in a functionally, in other words, they're finding it sort of difficult to do what they need to do	Experience Get more information, digging deeper Affecting people functionally, stopping them getting on with what they need to do

Emerging themes	Original transcript – participant 2	Exploratory comments
Time	with their lives on a day to day basis and I think that sounds a very, very broad definition but for me that's, that's, that's what my definition would be. M - Okay, thank you. Erm, and how confident are you in recognising the symptoms of depression? P2 - Well again this is the problem isn't it really, because erm, I mean in theory what have you got, you've got ten minutes, you know to try and find out an awful lot from you know, err, so sometimes you know if somebody does obviously present in either a	Time – not enough, lots of questions to ask and will patient answer?

Emerging themes	Original transcript – participant 2	Exploratory comments
Time	very withdrawn or a very distressed sort of frame of mind, I think, I think you know you'd have to sort of, the way I deal with it err is to sort of mentally, its not to sort of, obviously you can just at the end of the ten minutes you know say, right that's the ten minutes, time up, come back and see me, whatever. I think you just have to sort of invest in time you know for that individual, erm and I guess you hope that you know by using that time effectively you can actually come up with, you know sort of recognition of depression or mental health problem and come	Give more time effectively then hopefully will help, investing time actually helps to save time in the future? Initial treatment plan

Emerging themes	Original transcript – participant 2	Exploratory comments
Risk	up with some sort of at least rudimentary sort of plan of action. So I think, as long as you're sort of prepared to invest in that sort of time, erm and I think again erm, I think [name of interviewer] that you can't learn these things from books, you sort of have to, you know, sort of use your experience and some, I don't know the intuition, that you sort of that, you'd gleam from that experience really and you know, hope that you can sort of pick these things up and I think you have to sort of put some sort of safety netting into place as well really, erm you know, err, I think because if	Experience, can't get from books, can't be taught? Intuition Keeping patients safe

Emerging themes	Original transcript – participant 2	Exploratory comments
Responsibility Observation Watchful eye	somebody does come to see me and I'd think it would be the same for most GPs, you know that they present in a very concerned, distressed sort of, possibly withdrawn, sort of frame of mind erm, then you make sure that they come	Getting them to come back – monitoring, observing?

Appendix P – Reflective statement

Reflective statement

At this start of this research journey I remember feeling overwhelmed at the choice of research that was displayed at the research fair. However, there was one area that stood out for me. It was in relation to the local increases in antidepressant prescribing. Looking back, I think I was drawn to this area as I myself had been on antidepressants when I was diagnosed with post-natal depression and then later following a miscarriage. I remember at the time, many other new mums that I met at playgroups were also given antidepressants. I thought this was quite alarming; was this an epidemic of post-natal depression? This was way before my journey into clinical psychology but the thought never left me. I had counselling alongside antidepressants during both episodes and I know that played a main part in pursuing a career in clinical psychology. I suppose this is also what drew me to explore GPs experiences when patients present as 'depressed'.

I was really excited and eager when I wrote my first research proposal. The idea then developed into something different, as there was already a wealth of literature out there. Initially, the research was to look at GPs decision-making processes for prescribing antidepressants. This changed again until the current research question was devised.

Everything went fairly smoothly until Ethics approval. I needed to make some minor adaptations, which were manageable but then I needed to find whom it was I needed to gain approval from, for the clinical commissioning groups (CCGs) I wanted to interview GPs in. Eventually, a friend who works for one of the CCGs came to my rescue. I contacted the person she had suggested and much to my relief

she was the correct person. However, they then needed more information such as evidence of who was sponsoring the study. This meant I had to obtain approval from the research and development department from the local NHS trust. At the time I felt as though I was in the film Groundhog Day. Eventually, I had permission to access surgeries in two CCGs. Finally, I could start to recruit! However, the recruitment process was the most slowest, painful time and not just metaphorically speaking.

Whilst this may not be usual to include such personal information in a reflective statement, I think it is important as the events had a significant impact into my life at that time. During this period my dad became terminally ill which meant most weekends were spent visiting and taking care of his needs. At the same time our daughter had a serious accident, which was extremely traumatic for us all. Thankfully, she made a full recovery. Not long after, my dad died, which was unexpected at the time even though he had a terminal illness. I had to take care of everything that needed to be done, as there was nobody else and my husband works in Scotland. I never really had time to process what had occurred over these few months. I knew I just had to focus on the course, placement and my research.

Finally at the beginning of this year I had two interested participants that I was able to interview. I was so relieved but it was short lived. Two more potential participants contacted me but after contacting them numerous times, I never received any responses. I had to come up with a new strategy so I requested an amendment to my ethics and was granted approval. This meant I could contact practice managers to ask if any of their GPs would be willing to take part. Again, this was a long process but I finally gained another two participants, with the final one interviewed three weeks before thesis deadline.

Overall this has been a difficult process for me. I never anticipated recruitment would be so difficult. However, after interviewing GPs I have a deeper understanding of what their world is like and how precious their time is, which is one of the sub-themes that was evident across all participants. I did also wonder if there was some reluctance from potential participants to not help out, due to me being a trainee clinical psychologist. The reason I mention this, again, relates to my study. Participants felt let down by secondary services. Psychology and psychiatry were named. Therefore, this is something I have reflected on whilst conducting my analysis.

I enjoyed immersing myself in the data and found it to be the most satisfying part of the process. Although, I did not anticipate the length of time it would take me. It took me far longer than I expected and I believe I now have a much greater appreciation of the process of IPA. It was a late decision to go ahead with the four participants but as the pool of participants appeared frozen and the data I had was rich, it was deemed appropriate that I should go ahead. I just hope that I have managed to capture and interpret the participants' world as I intended.