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Journal:	BMJ Open
Manuscript ID	bmjopen-2020-046054
Article Type:	Original research
Date Submitted by the Author:	20-Oct-2020
Complete List of Authors:	Kelly, Dervla; University of Limerick, Graduate Entry Medical School Graffi, Justin; University of Limerick, Graduate Entry Medical School Noonan, Maria; University of Limerick, Department of Nursing & Midwifery Green, Philip; University of Limerick, Graduate Entry Medical School McFarland, John; University of Limerick, Department of Psychiatry Hayes, Peter; University of Limerick, School of Medicine-GEMS Glynn, Liam; Univ Limerick, 4. Graduate Entry Medical School and Health Research Institute
Keywords:	Depression & mood disorders < PSYCHIATRY, QUALITATIVE RESEARCH, PRIMARY CARE, Quality in health care < HEALTH SERVICES ADMINISTRATION & MANAGEMENT

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An exploration of GP perspectives on deprescribing antidepressants: a qualitative study

Dervla Kelly^{1,2}, Justin Graffi¹, Maria Noonan^{2,3}, Philip Green¹, John McFarland¹, Peter Hayes^{1,2}, Liam Glynn^{1,2}

- 1. School of Medicine, University of Limerick, Ireland
- 2. Health Research Institute, University of Limerick, Ireland
- 3. Department of Nursing and Midwifery, University of Limerick, Ireland

Corresponding author and principal investigator:

Dervla Kelly, School of Medicine, University of Limerick, Ireland.

Email: dervla.m.kelly@ul.ie

Keywords: general practice; general practitioners; qualitative research; depression, primary healthcare; deprescribing, discontinuation, antidepressants.

Running head: GP attitudes to antidepressant deprescribing

Word count: 4221

Table count: 2

An exploration of GP perspectives on deprescribing antidepressants: a qualitative study

Abstract

Objective: Our aim was to explore GPs perceptions and experiences of discontinuing antidepressants.

Study design: A qualitative study using semi-structured interviews.

Setting: GPs affiliated with a University education and research network for general practice in Ireland.

Participants: Semi-structured interviews undertaken with a purposive sample of GPs (n=10) between July 2019 and March 2020, were transcribed and analysed using Braun and Clarkes (2013) thematic analysis framework.

Results: Five themes emerged: Clinical dilemmas; personalised therapy; medication tapering toolkit; talk therapy and concerns around tapering. GPs described being less likely to engage in deprescribing in those with recurrent depression, older patients and those with comorbidities. Fear of relapse was the main reason GPs reported being reluctant to suggest patients to stop taking the drug or take a reduced dose, particularly amongst older patients with mutimorbidity and patients on long term antidepressant therapy. There was some suggestion that patients may use antidepressants for longer when talk therapy is not available or taken up and that antidepressants may occasionally be prescribed in mild depression where they are not necessary.

Conclusions: GPs are confident in their role of managing mild to moderate depression in the community and deprescribing antidepressants. This study provides an insight into factors that influence GPs decisions to deprescribe antidepressants and the barriers and facilitators for GPs in this role.

Strengths and limitations

- The main strength of this study is participant sampling from a range of urban and rural population practices, with experience ranging from less than 5 years to more than 25 years leading to a varied sample of GPs.
- Multiple coders from different professional backgrounds supported a more complex understanding of the phenomenon and a greater reflexivity in the data analysis.
- While data saturation was reached, theoretical saturation and theory development was not within the scope of the study.
- Findings should be interpreted in the context of study limitations where the sample of GPs was from a single healthcare context.
- This study, the first of its kind in an Irish context, used robust and transparent methods to conduct and highlights the need for access to nationally integrated guidance, care pathways and formal treatment plans that include discontinuation schedules and supports may facilitate deprescribing.

Introduction

In 2015, Ireland's most recent census reported that 8% of residents reported attending consultations for moderate to severe depression in the past two weeks ¹ Similarly, the prevalence of depression in the United Kingdom is reported to be 9.9% ². In Ireland, and internationally, the majority of cases of depression are managed in the community by general practitioners (GPs)³⁻⁵. Antidepressant drugs such as selective serotonin reuptake inhibitors (SSRIs) and serotonin noradrenaline reuptake inhibitors (SNRIs) are frequently prescribed as part of a broader treatment plan involving psychological therapy, exercise, and other non-pharmacological treatments. Antidepressants are generally recommended as first-line treatment in patients whose depression is of at least moderate severity ⁶. Of this group, approximately 50% will respond to antidepressant drug therapy ⁶.

It is recommended that patients taking antidepressants be regularly reviewed to monitor how well the treatment is working, adherence, side effects, as well as to ensure that long-term use remains clinically indicated ⁷. The normal course of antidepressant treatment should last at least six months after full symptom remission. In patients with a history of recurrent depression or those who are at higher risk of relapse, antidepressant treatment should continue for at least 2 years. Continued maintenance therapy is only indicated in patients with a history of severe depression (e.g. suicide attempt), chronic episodes (episode > 2 years), a strong family history, or highly recurrent major depression⁸. Despite these guidelines, an increase in long-term antidepressant use (beyond 2 years) has been observed with SSRIs and SNRIs in several international epidemiological studies ⁹⁻¹¹. While there is evidence that antidepressants particularly SSRIs can help in chronic depression ^{12, 13}, there is also evidence of ineffectiveness and harmful side effects, particularly with long term use ¹⁴⁻¹⁶.

Deprescribing of antidepressants should be considered after six months of full symptom remission ¹⁷. Deprescribing is the planned and supervised process of dose reduction or stopping of medication that might be causing harm or might no longer be providing benefit¹⁸. The goal of deprescribing is to reduce medication burden and harm while maintaining or improving quality of life which aligns with the National Patient Safety Strategy 2019-2024 ¹⁹. While some people need antidepressants to prevent relapse/recurrence, 30% to 50% of long-term users have no evidence-based indication to continue their medication ^{4, 9, 20}.

Few researchers have explored GPs views and experiences of deprescribing antidepressants ^{18, 21} and the available studies generally employ quantitative methods. Furthermore, a recent systematic review concluded that further research is required to explore GPs' perspective on antidepressant discontinuation as an understanding of GPs perspective might support the development of safe and effective approaches to deprescribing antidepressants ¹⁸.

This study sets out to qualitatively explore GPs perceptions and experiences of discontinuing antidepressant use. To our knowledge, this is the first study to explore GPs role in deprescribing in the Irish context. Understanding deprescribing processes in primary care is an important step in designing policy initiatives and healthcare systems to optimise appropriate antidepressant discontinuation. The reporting of this study was informed by COREQ criteria ²².

Method

An exploratory qualitative design was chosen for this study as its emphasis on context, meaning and experience was considered appropriate to enable researchers to gain an indepth understanding of participants experiences and clinical decision making in relation to discontinuing antidepressants in primary care ²³. Ethical approval was obtained from the affiliated university's research ethics committee.

Purposive sampling was employed to ensure maximum variation in recruitment of GPs with a broad range of experience, practicing in both urban and rural practices and catering for populations from all social backgrounds including ethnic minority groups²⁴. Recruitment was via a network of GP tutors affiliated with the ULEARN-GP network, a nationally represented network of GP practices²⁵, were contacted by email, and invited to participate (N=20). Those who agreed to participate were sent information packs, which included a letter of introduction, information leaflet and a consent form.

Data collection was undertaken from July 2019 to March 2020. Interviews were conducted using a pilot tested interview schedule which consisted of open-ended questions developed after a preliminary review of the literature and through discussion with the research team which included GPs (see supplementary table 1). GPs were asked to discuss their experiences of deprescribing antidepressants in general practice.

Interviews took place at a time and venue convenient to the GP. Before interviews commenced participants had an opportunity to ask questions about the study and reflect on participation prior to giving written consent. All interviews were recorded digitally with consent, lasted 20-60 minutes (average length of 28 minutes) and were conducted by two researchers (PG and JG), both graduate entry medical students under the supervision of DK. In addition, after each interview the researcher recorded brief field notes to capture contextual details, reflect on data collection, summarise findings, identify emerging codes as data collection and analysis proceeded simultaneously. Data collection ceased after ten interviews were conducted as data saturation appeared to occur initially after eight interviews with the final two interviews serving to test the evolving themes.

All interview tapes and transcriptions were stored in compliance with the Irish General Data Protection Regulations. Interviews were transcribed verbatim by one of the research team, anonymised and verified for accuracy by reading transcriptions and listening to original recordings concurrently. Braun and Clarke's (2013) framework informed thematic data analysis ²⁶. Codes and themes iteratively derived from the data were discussed and agreed by authors (DK, JG, MN) who met regularly bi-weekly to review and compare summaries and where interpretation differed, they returned to the original transcripts for clarification to reach a consensus on meaning. Disconfirming evidence was sought and presented in the final analysis. Rigour was ensured by prolonged engagement with the data, involvement of three researchers (DK, JG, MN) in coding and confirmation of themes, methodological coherence and sampling adequacy. Two general practitioners (PH and LG), participated in a reflective session on themes to refine themes from GP perspective. Thematic development is presented in supplementary table 2.

Results

Demographic details of GPs interviewed (n=10) are provided in Table 1.

Table 1: Participant demographic details

Years of experience	Practice Type	Gender
<5 years (n=3)	Urban (n=6)	Female (n=3)
5-10 years (n=4)	Rural (n=3)	Male $(n = 7)$
>25 years (n=3)	Both (n=1)	

The data was categorised into five themes: Clinical dilemmas; personalised therapy; medication tapering toolkit; talk therapy and concerns around tapering (Table 2).

Table 2 Overview of themes and subthemes

Clinical dilemmas	 Shared decision making
	 Patient led deprescribing
Personalised therapy	 Medical factors
1 0	 Psychosocial factors
	Gaps in care
Medication tapering toolkit	Tapering regimen
1 8	 Facilitators to deprescribing
Talk therapy	Availability of psychological
1 0	services
	 Access to psychiatry
Concerns around tapering	Fear of relapse
	 Withdrawal symptoms

Theme 1: Clinical dilemmas

This theme explores the factors that influence GPs decisions around discontinuing antidepressants and is discussed under two subthemes *shared decision making* and *patient autonomy* (Patient led deprescribing).

Shared decision making

Participants identified that a shared decision making process was ideal.

"My decision to stop the medication is usually very much in conjunction with the patient and sometimes led by them" (GP1)

Participants acknowledged that in the majority of cases it was the GP who opened the conversation around deprescribing antidepressants.

"So we had that conversation. So it was not me. I'm merely the facilitator. I'm like the waiter presenting the menu" (GP3)

In some cases, GPs revisited the conversation around deprescribing at a later time in response to patients who were reluctant to discontinue. They acknowledged the

"Nebulous nature of depression" and that many of the patients had complex reasons for "not wanting to rock the boat" (GP6).

"If someone really doesn't want to come off, certainly I think that it's something you revisit when you see them but you're not going to force somebody off a medication if they feel that it is doing them some good and they want to stay on it" (GP7)

In complex cases, the decision would be made by or in conjunction with a multidisciplinary team.

"In the case where I feel that maybe there is a more severe and enduring mental illness underlying, I'll seek that psychiatry opinion sooner or I'll involve a multidisciplinary team much sooner, in which case then usually the decision-making process will be shifted" (GP1)

Some participants suggested that the decision to discontinue antidepressants was the responsibility of the psychiatrist in cases where the patient was under the care of the mental health team.

"If they are linked in with a psychiatry service, well then I generally, leave these decisions regarding deprescribing with them" (GP4)

Participants identified the importance of having access to advise from colleagues in psychiatry for patients with complex presentations, severe and enduring illness, an initial diagnosis of refractory depression, co-occurring mental health conditions, substance dependency and for patients who had suicidal ideation or intent.

"I think it's really important that we have the safety component of secondary care backup if needed. That you know there is a pathway there. That you can speak with somebody in psychiatric care for advice if needed; that you can refer someone quickly if needed" (GP5)

Participants identified the challenges of deprescribing for patients who are on long term antidepressants which were originally prescribed by the psychiatrist but who are no longer under the care of the psychiatrist.

"They are particularly concerned about stopping it because they'll say well the psychiatrist started the tablet, why are you stopping it and you're, what happens if this is the wrong course and all that. So they're, an even harder group to try and manage: when they've been started by someone else many years ago" (GP4).

Patient led deprescribing

Participants recognised that patients sometimes self-discontinue antidepressants without medical guidance.

"A lot of patients would come back in and you might see them in six months' time and it emerges that they have taken themselves off." (GP9)

GPs expressed concerns about the risk of relapse for patients who engaged in antidepressant self- discontinuation.

"They come in and they've relapsed because they've just stopped it themselves because they felt good, I'm doing great and l don't need these anymore. So that can be I suppose patient led deprescribing." (GP4)

Theme 2: Personalised therapy

This theme describes the context that influence GPs decision making process around deprescribing. The following three subthemes were identified as influencing discontinuation and patient outcomes: Medical factors; psychosocial factors and gaps in care.

Medical factors

The length of time the patient was taking antidepressants is one factor that GPs considered when deciding about deprescribing. Generally, GPs had their own protocols in relation to length of time that patients should stay on antidepressants and this varied between participants from six months to one year. Decisions around length of treatment were based on individual patient needs such as patient age and whether it was a first episode or recurrence of depression.

"A young girl in her twenties. I would leave them on it for at least a year... If you've got an elderly person who's got, a lot going on, then I would tend to leave them." (GP3)

"For a recurrent depressive episode ... it would be a longer course of treatment.... If they had particularly bad episodes in the past, then they might need long term antidepressants." (GP10)

Participants took into account the patients' functional response to treatment, when deciding to discontinue antidepressant medication.

"Are they functioning better within their life and their family and their work context. Whether they feel that they are fully recovered. That they feel that they've been well for a significant number of months." (GP1)

Sometimes the decision was to leave patients with chronic disease on medication. "And then very elderly patients too who have a lot of co-morbid illness, chronic disease.... People who have a history of drug addiction, a history of alcoholism" (GP10)

Psychosocial factors

When making decisions about antidepressant discontinuation participants considered the person's current life circumstances and support networks.

"People who come from socioeconomic groups who are poor, live chaotic lifestyles" (GP 10)

GPs considered life events or changes in employment when making a decision to deprescribe.

"So we can look back at periods of stability, but then also look forward to any events coming up that may be stressful events. But if they are saying in the next three to four month. s I don't expect anything unusual. I don't have any big family events or not changing jobs. Then this might be a time where we might look at reducing the medication." (GP4)

GPs also acknowledge that some patients may be left on antidepressants for too long or that they may be used in mild depression where they are not warranted.

"There are always lots of factors around decisions. But I think often patients do probably stay on antidepressants a bit longer than they should possibly or stay on medications that perhaps aren't really helping their symptoms. So I think we do need to really try and be that better by following those patients up and making decisions." (GP1)

Gaps in care

Another subtheme that influenced patient outcomes is gaps in care. Split care was sometimes a feature of mental health, where a patient sees another GP rather than their own GP.

"In the busyness of our everyday work, they might leave in one prescriptions for 6 months and the next prescription for 6 months and no one is keeping an eye on their file. And if you are particularly in a multi-partner practice, you may fall in between lots of different stools. Like a collusion of institutional anonymity. So you kind of get lost in the system." (GP6)

All participants spoke about the importance of having time to therapeutically engage with patients and support them through the discontinuation process. Time was the most common resource constraint identified by GPs.

"I think people can benefit a lot if a doctor has time to talk to them about it. But often you are very rushed in general practice. You have 10-minute consultations. Obviously, you will always give someone the time they need. But they are aware that you are under time restrictions." (GP8)

Theme 3: Medication tapering toolkit

This theme explores the informal tapering programmes that GPs implemented to reduce withdrawal symptoms and increase the chances of success under two subthemes: tapering regimen and facilitators to deprescribing.

Tapering regimen

GPs viewed deprescribing as their role, recognised the opportunities for reviewing "patients on multiple occasions over a period" GP1 and were confident in supporting the majority of patients to discontinue antidepressants.

"If it's a mild to moderate depression, uncomplicated depression or perhaps that first episode of depression then I would be very happy to prescribe and deprescribe." GP1

Participants developed their own individual tapering regimen for discontinuing antidepressants which was informed by guidelines and one which was "low and slow essentially" (GP1).

"I developed, like we all develop, our own techniques... from listening to the collective wisdom of psychiatrist friends over the years and reading around it." (GP6)

The process of tapering medication was dependent on type of antidepressant, dose, length of treatment, patient's response to a reduction in the dose of medication and involved a "gradual, soft deprescribing" (GP6) regime.

"Really do it very gradually and keep them under review, make sure that their mood is not suffering or their symptoms are not recurring and that they're not having any physical symptoms related to them to deal with the withdrawal of antidepressants." (GP 1)

Participants emphasised the importance of non-pharmacological approaches to depression which may include lifestyle advice such as:

"Avoiding alcohol, avoiding drugs, taking exercise." (GP9)

In general GPs did not provide any other medication during the tapering process.

"I don't introduce any other drugs. There are no buffers for it" (GP2)

Facilitators to deprescribing

This subtheme explores the variety of factors that GPs perceived currently and in the future would support them in their role of deprescribing.

The majority of participants identified the value of having standardised clinical guidelines to assist them to provide evidence based care for deprescribing particularly to guide them in decisions around complex cases and where patients were on long term treatment, had chronic illness, co-morbidities and poly pharmacy.

"I think guidelines could be of potential use. But I think that use would be very limited unless people in the community such as pharmacists and GPs had major input into the designing of those guidelines" GP5

However, some participants did not see the value of having guidance on deprescribing.

"Personally I'm not sure what a guide would do. I mean there is nobody really reads these guides anyway" (GP2)

Other facilitators included education on deprescribing, audit tools, inbuilt prompts to review a patients' medication, patient information on deprescribing and the availability of support structures.

"Repeat prescription systems maybe a notice when you're a printing them off, not even specific to SSRIs but some sort of a notice like have you taken the opportunity to deprescribe at this time" (GP2)

Participant ten suggested that repeat prescriptions should not be available for antidepressants.

"Practice policy of not having repeat prescriptions. They are only prescribed every time you see the doctor. You can't just rock up and ask for a refill or repeat prescription without seeing a healthcare professional either a nurse or a doctor beforehand. I think if those sort of strategies are in place, then the deprescribing doesn't become an issue as it's done appropriately." (GP10)

Theme 5: Talk therapy

This theme comprised of the importance of talk therapies and was identified by all participants. It includes lack of availability and access to psychological therapies/psychiatric services.

Availability of psychological services

Participants identified the value of linking patients to psychological therapies at the time of deprescribing. A lack of access to psychological services was identified as a challenge at all stages of treating depression.

"There are no cognitive services freely available. People can pay for them. There are none freely available. I'm not going to get priority if I say I want to stop a SSRI and I want you to provide cognitive support," (GP2)

"In a lot of cases we don't have the skills. And that's really important as a doctor, right, is to know your limitations." (GP 3)

GPs valued the opportunity to consult with colleagues in the psychiatric services and this was difficult to access for some participants.

"There is a whole bunch of people falling in between the cracks between us and secondary care services, because there are no services there." (GP9)

Theme 5: Concerns around tapering

This theme explores participants concerns around tapering antidepressant medication which were primarily focused on the patients and GPs fears of relapse and withdrawal symptoms. Fears around relapse centred around the impact this decision would have for the patient and their family.

"If someone relapses during the tapering period, it can be quite difficult to know. They can see it as quite a negative thing, that they will be on these for life." (GP4)

Participants emphasised that discontinuing antidepressants may not be the right decision.

"If someone rebounds when you drop them from a high dose to a medium dose they are now poorly. You might sit on that for a week or two and see does it ameliorate but you may have made the wrong decision and now caused a medical problem for somebody who was well, through interfering with their medications." (GP2)

Discussion

Summary of findings

The findings of this study reveal the multitude of factors that shape GP decision making on antidepressant deprecribing providing information for clinicians and policymakers that may optimise antidepressant discontinuation in primary care. GPs felt confident in deprescribing antidepressants for patients receiving treatment for mild to moderate depression. However, deprescribing was less likely to occur in those with long-term, recurrent depression, older patients and patients with comorbidities. Access to evidence based psychological therapies, guidelines, patient information and reminder prompts to deprescribe on GP databases may optimise appropriate antidepressant discontinuation.

Comparison to the literature

We found the decision to discontinue antidepressants usually required detailed conversations between GPs and their patients, either prompted by the GP or patient. Time was sometimes a barrier to these conversations being done proactively. Patient preference for involvement in decision making varies and studies have found a substantial number of patients preferred less involvement in medical decision making than perceived ²⁷. A study by Malpass et al. found that GPs sometimes assigned patients with ownership of making decisions regarding anti-depressant treatment specifically ²⁸. There is limited evidence of previous research among GPs with one study reporting that some GPs expect patients to contact their practitioner when they wish to make changes to or discontinue their antidepressant ²⁹. These findings caution against assuming the patient will initiate a discussion about discontinuation and that they do want support and guidance for this process from their GP.

GPs in this study described a shared decision making process that involved a combination of familiarity and rapport with the patient and knowledge of their social circumstances (family, job, significant relationships) and their clinical experiences with depression and antidepressants. This is founded on enacting generalisable clinical knowledge, and applying a knowledge of psychosocial models of depression to contextual causes of depression. The variations in GPs understanding depression as an emotional or physical condition reported in our study have been reported elsewhere ^{30, 31}. The perceived cause of depression has been reported as both a barrier and facilitator to deprescribing anti-depressants. Suggesting antidepressants correct a biochemical deficiency is likely to encourage a belief in the need for life-long use among patients ^{29, 32, 33} while seasonal and life circumstances as triggers for depressive episodes can facilitate discontinuation ³⁴.

Associations between depression and ageing are well documented ^{30, 35}. In our study and among GPs and patients more generally, it is a common perception that an accepted part of ageing is to become depressed ³⁶. More recently studies are emerging that negative ageing perceptions predict the persistence of depression and anxiety ³⁷. The low expectations for recovery among this cohort may be a modifiable factor in GPs and patients that may lend itself to interventions targeting recovery and antidepressant discontinuation.

Avoiding destabilisation of a patient during and following discontinuation was a primary focus of GPs in our study. Fear of relapse has been reported in the literature among both GPs and patients ^{21, 30, 38}. Rates of relapse during discontinuation are currently unavailable for different patient groups, with a recent systematic review reporting rates of between 15% to 80% for various interventions ³⁹. Some evidence suggests that cognitive

behavioural therapy or mindfulness-based cognitive therapy can help patients discontinue antidepressants without increasing the risk of relapse/recurrence ³⁹⁻⁴¹. Limited access to psychological services was highlighted by GPs as lacking in the Irish healthcare system. Fractured care such as spilt care between psychiatrists and GPs or different GPs was a barrier to discontinuing antidepressants. This is a persistent feature of mental health care in Ireland, which liaison psychiatry models partly address⁴², although more resources and research are needed to expand collaborations⁴³.

Regarding drug choice and dose, prescribing was influenced by GP's prior clinical experience and SSRIs were viewed as an effective and safe choice echoing the literature ^{38, 44}. The GPs were in agreement that tapering slowly was the preferred way to reduce and eventually stop an antidepressant medication. Prescribing practices were seen as something that was learned experience, based on a combination of advice from colleagues, habits and patient preferences. Prescribers also demonstrated that antidepressants were only one of a multi-faceted approach, and GPs thought they themselves had a therapeutic function as listener, counsellor and facilitator. These findings are in keeping with the literature ⁴⁴. The use of sub therapeutic doses may be a helpful dose reduction strategy ⁴⁵ but is not currently in line with current recommendations and requires further research to determine feasibility and effectiveness amongst patients.

Implications to research and practice

Negative expectations and experiences of ageing can reinforce perceptions that antidepressants are long-term treatments, and that discontinuation is thus undesirable. This needs to be countered by appropriate patient and practitioner education. GPs require access to nationally integrated guidance and care pathways on antidepressant discontinuation with a particular focus on supporting deprescribing for older patients and patients on long term antidepressants. Treatment plans and formal practice protocols that include discontinuation and scheduled medication review rather than current informal approaches may support optimal antidepressant discontinuation. Access to evidence based psychological interventions, patient leaflets and web information sources may prevent patient self-discontinuation and relapse. Audits and inbuilt prompts on GP computer data bases and on pharmacy systems to review a patients' medication may support antidepressant discontinuation.

Strengths and weaknesses

This study, the first of its kind in an Irish context, used robust and transparent methods to conduct and report the study findings. The main strength of this study is participant sampling from a range of urban and rural population practices, with experience ranging from less than 5 years to more than 25 years leading to a varied sample of GPs. An indepth description of methods, settings and findings facilitates judgement of transferability and validity. Multiple coders from different professional backgrounds supported a more complex understanding of the phenomenon and a greater reflexivity in the data analysis. However, findings should be interpreted in the context of study limitations where the sample of GPs was small and was from a single healthcare context.

While data saturation was reached, theoretical saturation and theory development was not within the scope of the study.

Conclusion

This paper explores factors involved in GP decisions behind deprescribing antidepressants. The findings suggest that multiple strategies including scheduled medication review, audits, inbuilt prompts on GP computer data bases and access to evidence based psychological interventions and patient information sources may support optimal antidepressant discontinuation. Further robust research is required to design nationally integrated guidance and care pathways particularly for older patients with multimorbidity and patients on long term antidepressant therapy.

Acknowledgements: The authors would like to thank all participants for their willingness to share their experiences. We would also like to thank Prof Anne MacFarlane for her mentorship and advice during the project.

Conflict of interest statement: The authors have declared no competing interests.

Funding: No funding.

Ethical approval: The project received ethical approval from the Research Ethics Committee, Faculty of Education and Health Sciences, University of Limerick, Ireland (Ref. No: 2019_06_36_EHS, REC-EHS).

Author contribution statement: DK was responsible for overseeing the project. DK and LG and were responsible for study design. PG and JG carried out interviews under supervision of DK. JG, MN, PH, LG and SK were involved in data analysis and write up of manuscript.

Data availability statement: Anonymised dataset can be made available to researchers upon reasonable request

Patient and public involvement: Patients or the public WERE NOT involved in the design, or conduct, or reporting, or dissemination plans of our research

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Supplementary information

An exploration of GP perspectives on deprescribing antidepressants: a qualitative study

Dervla Kelly, Justin Graffi, Maria Noonan, Philip Green, John McFarland, Peter Hayes, Liam Glynn

Table S1 Semi-structured interview guide

(blue text – instructions)

Introduction

Greet the doctor and thank him/her for giving appointment for interview.

Introduce yourself (interviewer) and who you are.

Provide the interviewee with the leaflet on the study design and briefly explain about the study.

Explain about confidentiality and use of the study outcomes.

Introduce the consent form. Ask for consent to audio recording and note taking.

Personal Characteristics

Current Position

Years in practice

Interview

1. Do you think diagnosis and treatment of depression in Ireland have changed over time?

Prompts: Overdiagnosis or underdiagnosis?; Treatment strategies

2. How do you feel about discontinuing antidepressants for patients in primary care setting?

Prompts: Challenges of deprescribing in this setting: managing discontinuation symptoms, relapse; Ease or difficulty of reviewing medicine profiles; Clarity of clinical notes and medicine charts; Communication

3. When prescribing medicines for these patients, what factors do you think are important to consider?

Prompts: Patient factors (e.g.: quality of life, benefit gained versus risk caused)

Physician factors (e.g.: prescribing habits, personal preferences, past experience)

Other factors (e.g.: secondary care prescribers, patient/relatives' wishes)

4. How do you approach reducing or stopping antidepressants in patients in primary care?

Prompts: Do they endorse this idea? Do they have any concerns? (patients' or relatives' views)

Do they find stopping medicines challenging? Why? How frequently do they tend to stop medicine(s)?

5. What factors do they take into account when making those decisions?

Prompts: Do deprescribing decisions occur at the patient's regular clinical review multidisciplinary meetings or at another time? Strategies: Dose reduction — from treatment to maintenance dose. Therapeutic substitution — moving patients off antidepressants to another type of treatment; Non pharmacological interventions; Self-regulation — taking antidepressants in an individually tailored regime to minimise discontinuation symptoms.

6. If there were a guideline designed to assist prescribers in making decisions around deprescribing antidepressants in patients, would you consider this to be useful for your clinical practice?

Prompts: What type of guidance would they find useful? Would they find deprescribing guidelines helpful or burdensome? Would guidelines make it easier or more efficient to review patients' medicine lists?

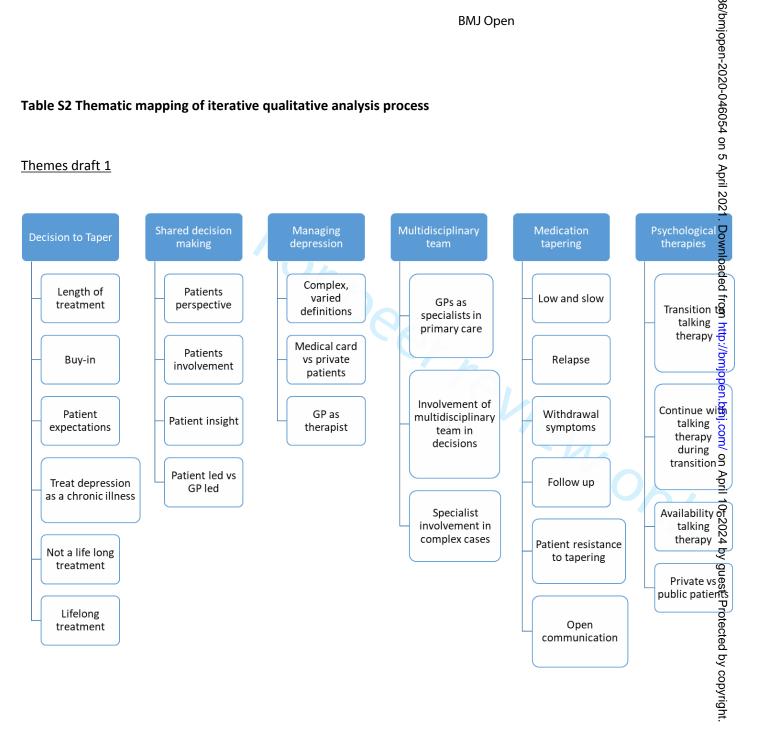
7. Is there anything you think you would like to help you with this process of reducing/stopping antidepressants (i.e. deprescribing)? Is there anything that could make this process easier

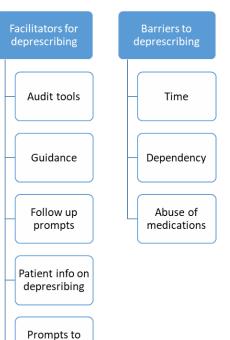
Closing

Switch off the recorder. Thank interviewee for time and inputs. Ask the interviewee if he/she wants to share anything. Assure the sharing of study results with interviewee. Ask permission to get back to interviewee for any clarifications/further information.

Table S2 Thematic mapping of iterative qualitative analysis process

Themes draft 1





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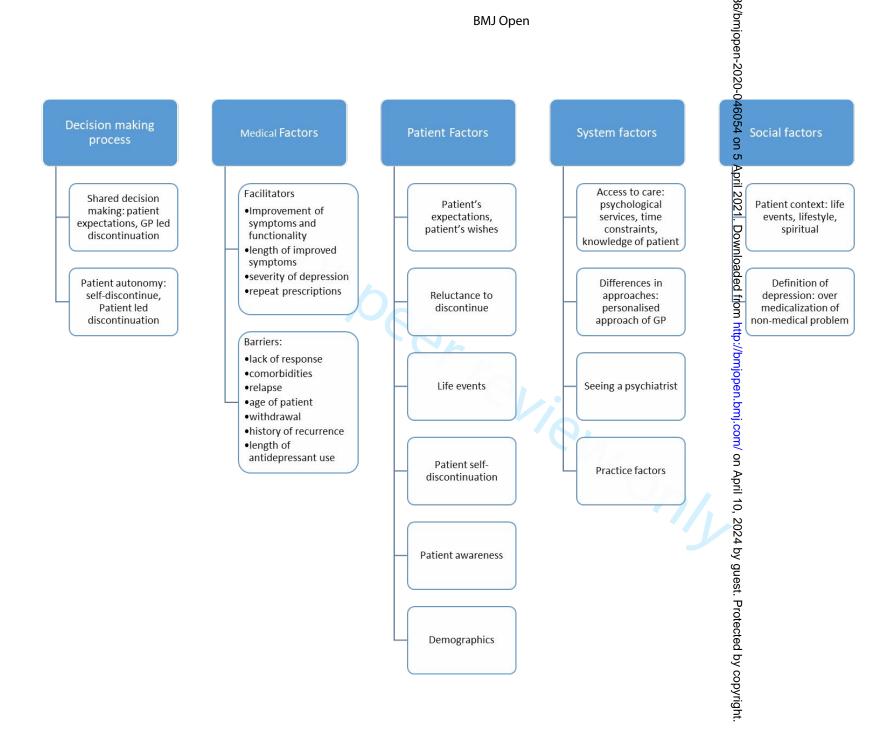
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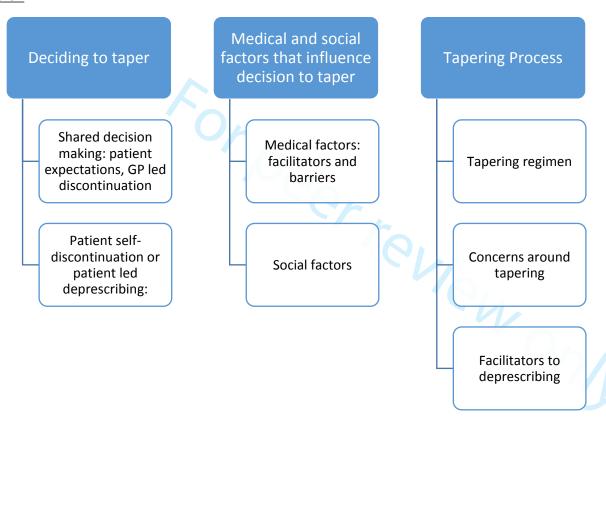
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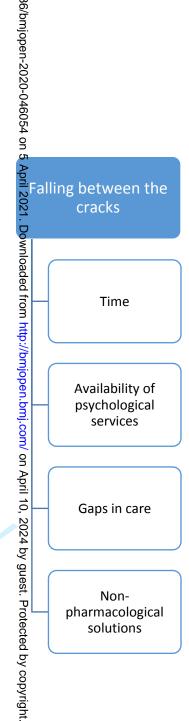
44 45 46 Page 22 of 29



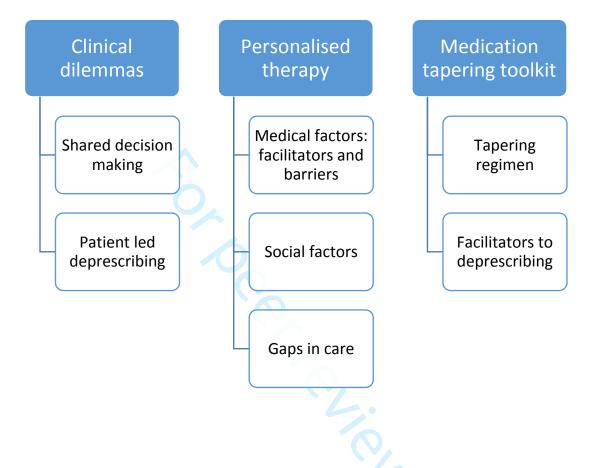
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Themes draft 4





Themes draft 5



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Table: Assessment of the manuscript against the consolidated criteria for reporting qualitative research (COREQ) checklist(1).

COREQ checklist Domain 1: Research team and reflexivity Location in manuscript (Section, page no.)			
Personal Characteristics		L	
1. Interviewer/facilitator Which author/s conducted the interview or focus group?	JG, PG		Methods - 4
2. Credentials	PG: BSc MSc		Title page - 1
What were the researcher's credentials? E.g. PhD, MD	JG: BSc MSc		
3. Occupation What was their occupation at the time of the study?	Graduate entry students	medical	Methods - 4
4. Gender Was the researcher male or female?	Male		-
5. Experience and training What experience or training did the researcher have?	PG: MSc Public Experienced qu researcher. JG: epidemiolo literature revie	ualitative gy and	-
Relationship with participants			
6. Relationship established Was a relationship established prior to study commencement?	No		2
7. Participant knowledge of the interviewer What did the participants know about the researcher? e.g. personal goals, reasons for doing the research	Participants we the purpose of understood that research project Ethical approvagranted, participanted, participanted the pinformation do prior to giving informed conscinvolved.	the study and at it was a ct led by PI DK. al had been ipants articipant cumentation their written	
8. Interviewer characteristics What characteristics were reported about the interviewer/facilitator? e.g. Bias, assumptions, reasons and interests in the research topic	No interviewer identified.	-related biases	-
Domain 2: study design	<u> </u>		

Theoretical framework		
9. Methodological orientation and Theory	Open coding with thematic content analysis.	Methods – 4
What methodological		
orientation was stated to		
underpin the study? e.g. grounded theory, discourse		
analysis, ethnography,		
phenomenology, content		
analysis		
Participant selection		
10. Sampling How were	Recruited via email	Methods - 3
participants selected? e.g.		
purposive, convenience,		
consecutive, snowball		
11. Method of approach How	Email	Methods - 3
were participants		
approached? e.g. face-to- face, telephone, mail, email		
12. Sample size How many	Ten	Methods - 3
participants were in the		
study?		
13. Non-participation How	Of the first ten respondents	-
many people refused to participate or dropped out?	that were invited for a semi- structured interview, all	
Reasons?	gave informed consent and	
	completed the interview.	
	There were no participants	
	who subsequently refused to participate, withdrew	
	consent or dropped out.	
Setting		
14. Setting of data collection	Data was collected via	· O,
Where was the data	Skype or in non-clinical	
collected? e.g. home, clinic, workplace	professional location e.g. meeting room in a	
	conference centre or	
	university.	
15. Presence of non-	No	-
participants Was anyone else present		
besides the participants and		
researchers?		
16. Description of sample	7 males, 3 females.	Table 1
What are the important characteristics of the	Level of experience ranged from <5 years to > 25	
sample? e.g. demographic	years.	
data, date	Data was collected	
	between July 2019 and	
Data collection	March 2020	
Data Conscitori		

[-	1	
17. Interview guide Were	Interviews were semi-	Methods – 4 and
questions, prompts, guides	structured using a guide	supplemental information
provided by the authors?	(supplemental table 1);	table 2
Was it pilot tested?		
18. Repeat interviews	No	-
Were repeat interviews		
carried out? If yes, how		
many?		
18. Repeat interviews	No	-
Were repeat interviews		
carried out? If yes, how		
many?		
19. Audio/visual recording	The semi-structured	-
Did the research use audio	interviews were audio	
or visual recording to collect	recorded using a laptop.	
the data?		
20. Field notes	No additional field notes	-
Were field notes made	were made.	
during and/or after the		
interview or focus group?		
21. Duration What was the	The semi-structured	Methods - 4
duration of the interviews or	interview durations ranged	
focus group?	from 18:25 to 53:29	
locas group :	(minutes : seconds)	
22. Data saturation	No.	_
Was data saturation	110	
discussed?		
23. Transcripts returned	No	_
Were transcripts returned to		
participants for comment		
and/or correction?		
Domain 3: analysis and findings		
Data analysis		
24. Number of data coders	Three	-
How many data coders coded		
the data?		
25 Description of the section	Open coding Coding	Mathada
25. Description of the coding	Open coding. Coding	Methods - 4
tree	described in methods section.	
Did authors provide a		
description of the coding tree?		
acscription of the couling tree!		
26. Derivation of themes	Themes were derived from	Methods – 4-5
	the data	
Were themes identified in		
advance or derived from the		
data?		
27. Software What software, if	Microsoft Word and Excel	-
applicable, was used to		
manage the data?		
20 Dowtising at all a string	No	
28. Participant checking	No	-
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Did participants provide		
feedback on the findings?		
Reporting		
29. Quotations presented Were participant quotations presented to illustrate the themes / findings? Was each quotation identified? e.g. participant number	Yes, specific comments were supported with direct quotes attributed to anonymised participant	Results – 5-11
30. Data and findings consistent Was there consistency between the data presented and the findings?	Yes	-
31. Clarity of major themes Were major themes clearly presented in the findings?	Yes	-
32. Clarity of minor themes	Subthemes were identified under each theme.	

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1. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a. Int J Qual Heal Care. 2007;

BMJ Open

An exploration of GP perspectives on deprescribing antidepressants: a qualitative study

Journal:	BMJ Open
Manuscript ID	bmjopen-2020-046054.R1
Article Type:	Original research
Date Submitted by the Author:	22-Feb-2021
Complete List of Authors:	Kelly, Dervla; University of Limerick, School of Medicine amd Health Reserach Institute Health Implementation Science Research Cluster Graffi, Justin; University of Limerick, School of Medicine Noonan, Maria; University of Limerick, Department of Nursing & Midwifery Green, Philip; University of Limerick, School of Medicine McFarland, John; University of Limerick, School of Medicine and Department of Psychiatry Hayes, Peter; University of Limerick, School of Medicine-GEMS Glynn, Liam; University of Limerick, School of Medicinel and Health Research Institute
Primary Subject Heading :	General practice / Family practice
Secondary Subject Heading:	Qualitative research, Mental health
Keywords:	Depression & mood disorders < PSYCHIATRY, QUALITATIVE RESEARCH, PRIMARY CARE, Quality in health care < HEALTH SERVICES ADMINISTRATION & MANAGEMENT

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An exploration of GP perspectives on deprescribing antidepressants: a qualitative study

Dervla Kelly^{1,2}, Justin Graffi¹, Maria Noonan^{3,4}, Philip Green¹, John McFarland¹, Peter Hayes^{1,3}, Liam Glynn^{1,3}

- 1. School of Medicine, University of Limerick, Ireland
- 2. Health Research Institute and Health Implementation Science and Technology (HIST), University of Limerick, Ireland
- 3. Health Research Institute, University of Limerick, Ireland
- 4. Department of Nursing and Midwifery, University of Limerick, Ireland

Corresponding author and principal investigator:

Dervla Kelly, School of Medicine, University of Limerick, Ireland.

Email: dervla.m.kelly@ul.ie

Keywords: general practice; general practitioners; qualitative research; depression, primary healthcare; deprescribing, discontinuation, antidepressants.

Running head: GP attitudes to antidepressant deprescribing

Word count: 4221

Table count: 2

An exploration of GP perspectives on deprescribing antidepressants: a qualitative study

Abstract

Objective: Our aim was to explore GPs' perceptions and experiences of discontinuing antidepressants.

Study design: A qualitative study using semi-structured interviews undertaken between July 2019 and March 2020. The interviews were transcribed and analysed using a thematic analysis framework.

Setting: GPs affiliated with a University education and research network for general practice in Ireland.

Participants: A purposive sample of GPs (n=10).

Results: Five themes emerged: Shared decision making; personalised therapy; medication tapering toolkit; health services factors and concerns around tapering. GPs described being less likely to engage in deprescribing for patients with long term and recurrent depression, older patients and those with comorbidities due to fear of relapse. Access to evidence based psychological therapies, guidelines, information on rates of relapse, patient leaflets on discontinuing antidepressants and reminder prompts on GP prescribing software were suggested to optimise appropriate antidepressant discontinuation. There was some suggestion that patients may use antidepressants for longer when talk therapy is not available or taken up and that antidepressants.

Conclusions: GPs are largely confident in their role of managing mild to moderate depression and deprescribing antidepressants. This study provides an insight into factors that influence GPs decisions to deprescribe antidepressants. More information on rates of relapse after discontinuation would be helpful to inform decision making.

Strengths and limitations

- A strength of this study was recruitment of a diverse sample of GPs, with experience ranging from less than 5 years to more than 25 years, practicing in a range of urban and rural population practices.
- Multiple coders from different professional backgrounds supported a more complex understanding of the phenomenon and a greater reflexivity in data analysis.
- While data saturation was reached, theoretical saturation and theory development was not within the scope of the study.
- The sample of GPs was affiliated to one country and participants were from a network of GP tutors who may have enhanced knowledge of deprescribing.
- Our study highlights the need for access to detailed professional guidance on tapering additional research on rates of relapse amongst patients on long term antidepressants use and those discontinued from antidepressants and improved access to psychological supports to facilitate deprescribing.

Introduction

In 2015, Ireland's most recent census identified that 8% of residents reported attending consultations for moderate to severe depression in the past two weeks ¹ Similarly, the prevalence of depression in the United Kingdom is reported to be 9.9% ². In Ireland, and internationally, the majority of cases of depression are managed in the community by general practitioners (GPs)³⁻⁵. Antidepressant drugs such as selective serotonin reuptake inhibitors (SSRIs) and serotonin noradrenaline reuptake inhibitors (SNRIs) are frequently prescribed as part of a broader treatment plan involving psychological therapy, exercise, and other non-pharmacological treatments. Antidepressants are generally recommended as first-line treatment in patients whose depression is of at least moderate severity ⁶. Of this group, approximately 50% will respond to antidepressant drug therapy ⁶.

It is recommended that patients taking antidepressants be regularly reviewed to monitor how well the treatment is working, adherence, side effects, as well as to ensure that long-term use remains clinically indicated ⁷. The normal course of antidepressant treatment should last at least six months after full symptom remission. In patients with a history of recurrent depression or those who are at higher risk of relapse, antidepressant treatment should continue for at least 2 years. Continued maintenance therapy is only indicated in patients with a history of severe depression (e.g. suicide attempt), chronic episodes (episode > 2 years), a strong family history, or highly recurrent major depression⁸. Despite these guidelines, an increase in long-term antidepressant use (beyond 2 years) has been observed with SSRIs and SNRIs in several international epidemiological studies ⁹⁻¹¹. While there is evidence that antidepressants particularly SSRIs can help in chronic depression ^{12, 13}, there is also evidence of ineffectiveness and harmful side effects, particularly with long term use ¹⁴⁻¹⁶.

Deprescribing of antidepressants should be considered after six months of full symptom remission ¹⁷. Deprescribing is the planned and supervised process of dose reduction or stopping of medication that might be causing harm or might no longer be providing benefit¹⁸. The goal of deprescribing is to reduce medication burden and harm while maintaining or improving quality of life which aligns with the National Patient Safety Strategy 2019-2024 ¹⁹. While some people need antidepressants to prevent relapse/recurrence, 30% to 50% of long-term users have no evidence-based indication to continue their medication ^{4, 9, 20}. Deprescribing typically takes place during medication reviews. There is currently no standardized approach to medication reviews in Ireland. The National Medicines Management programme in Ireland has one deprescribing guidance document for benzodiazepines. Current UK guidelines suggest when stopping an antidepressant, gradually reduce the dose over a 4-week period¹⁷. Beyond that, detailed professional approved guidelines for GPs on tapering and discontinuing antidepressants are not available.

Few researchers have explored GPs views and experiences of deprescribing antidepressants ^{18, 21, 22}. The issues of risk of relapse, personal circumstances of the patients, expectations on responsibility for initiating discontinuation, and organisational constraints of general practice have previously been identified as factors that influence deprescribing decisions^{18, 21, 22}. Furthermore, a recent systematic review concluded that further research is required to explore GPs' perspectives on antidepressant

discontinuation as an understanding of GPs views may support the development of safe and effective approaches to deprescribing antidepressants ¹⁸.

This study sets out to qualitatively explore GPs perceptions and involvement in discontinuing antidepressant use. To our knowledge, this is the first study to investigate GPs role in deprescribing in the Irish context. Understanding deprescribing processes in primary care is an important step in designing policy initiatives and healthcare systems to optimise appropriate antidepressant discontinuation. The reporting of this study was informed by COREQ criteria ²³.

Methods

An exploratory qualitative design was chosen for this study as its emphasis on the environment, meaning and experience was considered appropriate to enable researchers to gain an in-depth understanding of participants experiences and clinical decision making in relation to discontinuing antidepressants in primary care ²⁴. Ethical approval was obtained from the affiliated university's research ethics committee.

Purposive sampling was employed to ensure maximum variation in recruitment of GPs with a broad range of experience, practicing in both urban and rural practices and providing care for patients from diverse social and cultural backgrounds²⁵. Recruitment was via a network of GP tutors affiliated with the ULEARN-GP network, a nationally represented network of GP practices²⁶. GPs were contacted by email, and invited to participate (N=20). Those who agreed to participate were sent information packs, which included a letter of introduction, information leaflet and a consent form.

Data collection was undertaken from July 2019 to March 2020. Interviews were guided by a pilot tested structured interview consisting of open-ended questions and probes developed after a preliminary review of the literature and through discussion with the research team which included GPs (see supplementary table 1). GPs were asked to discuss their experiences of deprescribing antidepressants in general practice.

Interviews took place at a time and venue that suited the GP. Before the interviews began participants had time to ask questions about the study and consider participation prior to giving written consent. All interviews were recorded digitally with consent, lasted 20-60 minutes (average length of 28 minutes) and were conducted by two researchers (PG and JG), both graduate entry medical students under the supervision of DK. In addition, following each interview the researcher reflected on data collection and documented brief field notes to capture contextual details, , summarise main ideas, identify emerging codes as data collection and analysis proceeded in parallel. Data collection ceased after ten interviews were conducted as data saturation appeared to occur initially after eight interviews with the final two interviews serving to test the evolving themes. As no new codes were identified in the final two interviews, we concluded data saturation had occurred.

All interview audio files and transcriptions were stored in compliance with the Irish General Data Protection Regulations. Interviews were transcribed verbatim by one of the research team, anonymised and accuracy confirmed by reading transcriptions while listening to original interviews. Braun and Clarke's (2013) framework informed thematic data analysis ²⁷. Codes and themes iteratively derived from the data were discussed and

agreed by authors (DK, JG, MN) who met bi-weekly to review and compare summaries. Where we disagreed on meaning, we revisited the original interview transcripts to seek clarification and to attain a consensus on interpretation. Disconfirming evidence was identified and presented in the final analysis. Rigour was ensured by methodological coherence and sampling adequacy and an iterative process of data analysis which involved three researchers (DK, JG, MN) in coding and confirmation of themes. Furthermore, two general practitioners (PH and LG), participated in a reflective session to review and refine themes and to ensure that the findings captured a GP perspective. Thematic development is presented in supplementary table 2.

Results

Demographic details of GPs interviewed (n=10) are provided in Table 1.

Table 1: Participant demographic details

Years of experience	Practice Type	Gender
<5 years (n=3)	Urban (n=6)	Female (n=3)
5-10 years (n=4)	Rural (n=3)	Male $(n = 7)$
>25 years (n=3)	Both $(n=1)$	

The data was categorised into five themes: Shared decision making; personalised therapy; medication tapering toolkit; health services factors and concerns around tapering. (Table 2).

Table 2 Overview of themes and subthemes

Shared decision making	 Shared decision making
Personalised therapy	Medical factorsPsychosocial factors
Medication tapering toolkit	 Tapering regimen Facilitators to deprescribing
Health service factors	 Availability of psychological services Access to psychiatry Gaps in care
Concerns around tapering	Fear of relapseWithdrawal symptoms

Theme 1: Shared decision making

This theme explores the factors that influence GPs decisions around discontinuing antidepressants.

Participants identified that a shared decision making process was ideal and that where possible decisions to discontinue antidepressants were made in conjunction with patients. While in some cases patients took the lead in requesting a consultation to begin the process of discontinuing antidepressants, in the majority of cases it was the GP who opened the conversation around deprescribing "My decision to stop the medication is usually very much in conjunction with the patient and sometimes led by them" (GP1)

GPs revisited the conversation around deprescribing at a later time in response to patients who were reluctant to discontinue. GPs also acknowledged the "Nebulous nature of depression" and that many of the patients had complex reasons for "not wanting to rock the boat" (GP6).

"If someone really doesn't want to come off, certainly I think that it's something you revisit when you see them but you're not going to force somebody off a medication if they feel that it is doing them some good and they want to stay on it" (GP7)

All participants recognised that patients sometimes discontinue antidepressants without medical guidance. GPs expressed concerns about the risk of relapse for patients who engaged in antidepressant self- discontinuation.

"A lot of patients would come back in and you might see them in six months' time and it emerges that they have taken themselves off." (GP9)

"They come in and they've relapsed because they've just stopped it themselves because they felt good, I'm doing great and l don't need these anymore. So that can be I suppose patient led deprescribing." (GP4) In complex cases, the decision would be made by or in conjunction with a multidisciplinary team particularly where patients experienced severe or enduring mental health conditions.

Participants often identified the importance of having access to advise from colleagues in psychiatry for patients with complex presentations, severe and long-term illness, an initial diagnosis of refractory depression, co-occurring mental health conditions, substance dependency and for patients who had suicidal ideation or intent.

"I think it's really important that we have the safety component of secondary care backup if needed. That you know there is a pathway there. That you can speak with somebody in psychiatric care for advice if needed; that you can refer someone quickly if needed" (GP5)

Some participants suggested that the decision to discontinue antidepressants was the responsibility of the psychiatrist in cases where the patient was under the care of the mental health team. Participants frequently identified the challenges of deprescribing for patients who are on long term antidepressants which were originally prescribed by the psychiatrist but who are no longer under the care of the psychiatrist.

"They are particularly concerned about stopping it because they'll say well the psychiatrist started the tablet, why are you stopping it and you're, what happens if this is the wrong course and all that. So they're, an even harder group to try and manage: when they've been started by someone else many years ago" (GP4).

Theme 2: Personalised therapy

This theme describes the context that influence GPs decision making process around deprescribing. The following two subthemes were identified as influencing discontinuation and patient outcomes: Medical factors and psychosocial factors.

Medical factors

The length of time the patient was taking antidepressants is one factor that GPs considered when deciding about deprescribing. Generally, GPs had their own protocols in relation to length of time that patients should stay on antidepressants and this varied between participants from six months to one year. Decisions around length of treatment were based on individual patient needs such as patient age and whether it was a first episode or recurrence of depression.

"A young girl in her twenties. I would leave them on it for at least a year... If you've got an elderly person who's got, a lot going on, then I would tend to leave them." (GP3)

"For a recurrent depressive episode ... it would be a longer course of treatment.... If they had particularly bad episodes in the past, then they might need long term antidepressants." (GP10)

All participants took into account the patients' functional response to treatment, when deciding to discontinue antidepressant medication.

"Are they functioning better within their life and their family and their work context. Whether they feel that they are fully recovered. That they feel that they've been well for a significant number of months." (GP1)

Sometimes the decision was to leave patients with chronic depression on medication. "And then very elderly patients too who have a lot of co-morbid illness, chronic disease.... People who have a history of drug addiction, a history of alcoholism" (GP10)

Psychosocial factors

When making decisions about the timing of antidepressant discontinuation participants considered the person's current life circumstances such as changes in employment, upcoming events and support networks.

"So we can look back at periods of stability, but then also look forward to any events coming up that may be stressful events. But if they are saying in the next three to four months I don't expect anything unusual. I don't have any big family events or not changing jobs. Then this might be a time where we might look at reducing the medication." (GP4)

Theme 3: Medication tapering toolkit

This theme explores the informal tapering programmes that GPs implemented to reduce withdrawal symptoms and increase the chances of success under two subthemes: tapering regimen and facilitators to deprescribing.

Tapering regimen

GPs viewed deprescribing as their role, recognised the opportunities for reviewing "patients on multiple occasions over a period" GP1 and were confident in supporting the majority of patients to discontinue antidepressants.

"If it's a mild to moderate depression, uncomplicated depression or perhaps that first episode of depression then I would be very happy to prescribe and deprescribe." GP1

Participants developed their own individual tapering regimen for discontinuing antidepressants which was typically informed by a combination of professional experience, knowledge shared by colleagues and the NICE guidelines¹⁷.

The process of tapering medication was dependent on type of antidepressant, dose, length of treatment, patient's response to a reduction in the dose of medication and involved a "gradual, soft deprescribing" (GP6) regime. Deprescribing was frequently described as "low and slow" (GP1).

"Really do it very gradually and keep them under review, make sure that their mood is not suffering or their symptoms are not recurring and that they're not having any physical symptoms related to them to deal with the withdrawal of antidepressants." (GP 1)

Participants emphasised the importance of non-pharmacological approaches to depression which may include lifestyle advice such as "Avoiding alcohol, avoiding drugs, taking exercise." (GP9)

In general GPs did not provide any other medication during the tapering process as they did not see the benefit of adjunct medicines as helping with withdrawal symptoms.

"I don't introduce any other drugs. There are no buffers for it" (GP2)

Facilitators to deprescribing

This subtheme explores the variety of factors that GPs perceived currently and in the future would support them in their role of deprescribing.

The majority of participants identified some value in having standardised clinical guidelines to assist them to provide evidence based care for deprescribing. Additional advice on when and how to deprescribe was particularly welcome to guide decisions around complex cases and where patients were on long term treatment, had chronic illness, co-morbidities and poly pharmacy.

"I think guidelines could be of potential use. But I think that use would be very limited unless people in the community such as pharmacists and GPs had major input into the designing of those guidelines" GP5

However, some participants did not see the value of having guidelines specifically on deprescribing.

"Personally I'm not sure what a guide would do. I mean there is nobody really reads these guides anyway" (GP2)

Other facilitators included education on deprescribing, audit tools, inbuilt prompts on prescribing software to review a patients' medication and patient information on deprescribing.

"Repeat prescription systems maybe a notice when you're a printing them off, not even specific to SSRIs but some sort of a notice like have you taken the opportunity to deprescribe at this time" (GP2)

Participant ten suggested that repeat prescriptions should not be available for antidepressants.

"Practice policy of not having repeat prescriptions. They are only prescribed every time you see the doctor. You can't just rock up and ask for a refill or repeat prescription without seeing a healthcare professional either a nurse or a doctor beforehand. I think if those sort of strategies are in place, then the deprescribing doesn't become an issue as it's done appropriately." (GP10)

Theme 4: Health system factors

This theme covers health service factors that influence the management of depression by GPs and explores access to psychological services, psychiatry and gaps in care.

Availability of psychological services

GPs acknowledged their therapeutic role in listening and counselling patients, however they recognised their limitations and valued the importance of having referral options for psychological interventions. "In a lot of cases we don't have the skills. And that's really important as a doctor, right, is to know your limitations." (GP 3)

All participants identified the importance of evidence- based adjunct psychological interventions to support the deprescribing process such as cognitive therapy, counselling and talk therapy.

"it would be great to use those psychological supports for that (deprescribing SSRIs)". A lack of access to psychological services was identified as a challenge.

"There are no cognitive services freely available. People can pay for them. There are none freely available. I'm not going to get priority if I say I want to stop a SSRI and I want you to provide cognitive support," (GP2)

Access to psychiatry

GPs valued the opportunity to consult with colleagues in the psychiatric services and this was difficult to access for some participants.

"There is a whole bunch of people falling in between the cracks between us and secondary care services, because there are no services there." (GP9)

Gaps in care

Another subtheme that influenced patient outcomes is gaps in care. Split care was sometimes a feature of mental health, where a patient sees another GP rather than their own GP.

"In the busyness of our everyday work, they might leave in one prescriptions for 6 months and the next prescription for 6 months and no one is keeping an eye on their file. And if you are particularly in a multi-partner practice, you may fall in between lots of different stools. Like a collusion of institutional anonymity. So you kind of get lost in the system." (GP6)

All participants spoke about the importance of having time to therapeutically engage with patients and support them through the discontinuation process. Time was the most common resource constraint identified by GPs.

"I think people can benefit a lot if a doctor has time to talk to them about it. But often you are very rushed in general practice. You have 10-minute consultations. Obviously, you will always give someone the time they need. But they are aware that you are under time restrictions." (GP8)

GPs also acknowledged that some patients may be left on antidepressants for too long due to a lack of review or that antidepressants may be prescribed for mild depression where they are not warranted.

"There are always lots of factors around decisions. But I think often patients do probably stay on antidepressants a bit longer than they should possibly or stay on medications that perhaps aren't really helping their symptoms. So I think we do need to really try and be that better by following those patients up and making decisions." (GP1)

Theme 5: Concerns around tapering

This theme explores participants concerns around tapering antidepressant medication which were primarily focused on the patients and GPs fears of relapse and withdrawal symptoms. Fears around relapse centred around the impact this decision would have for the patient and their family.

"If someone relapses during the tapering period, it can be quite difficult to know. They can see it as quite a negative thing, that they will be on these for life." (GP4)

Participants emphasised that discontinuing antidepressants may not be the right decision for some patients and when patients relapsed it left GPs questioning the consequences of their decisions for the patient.

"If someone rebounds when you drop them from a high dose to a medium dose they are now poorly. You might sit on that for a week or two and see does it ameliorate but you may have made the wrong decision and now caused a medical problem for somebody who was well, through interfering with their medications." (GP2)

Discussion

Summary of findings

The findings of this study reveal the multitude of factors that shape GP decision making on antidepressant deprescribing providing information for clinicians and policymakers that may optimise antidepressant discontinuation in primary care. GPs felt confident in deprescribing antidepressants for patients receiving treatment for mild to moderate depression. However, hesitancy around considering deprescribing was expressed when reviewing patients with long-term, recurrent depression, older patients and patients with comorbidities. Access to evidence based psychological therapies, guidelines, information on rates of relapse, patient information on discontinuing antidepressants and reminder prompts to deprescribe on GP prescribing software were suggested to optimise appropriate antidepressant discontinuation.

Comparison to the literature

We found the decision to discontinue antidepressants usually required detailed conversations between GPs and their patients, either prompted by the GP or patient. Time was sometimes a barrier to these conversations being done proactively. Patient preference for involvement in decision making varies and studies have found a substantial number of patients preferred less involvement in medical decision making than perceived ²⁸. A study by Malpass et al. found that GPs sometimes assigned patients with ownership of making decisions regarding anti-depressant treatment specifically ²⁹. They concluded that patients may have what they termed 'Unvoiced agendas' within the complexity of a shared decision making model and caution that in some cases patients' do not voice their needs around continuation, deteriorating illness and discontinuation of antidepressants. There is limited evidence of previous research among GPs with one study reporting that some GPs expect patients to contact their practitioner when they wish to make changes to or discontinue their antidepressant ²². These findings caution against assuming the patient will initiate a discussion about discontinuation and suggest that patients want support and guidance for this process from their GP.

GPs in this study described a shared decision making process that involved a combination of familiarity and rapport with the patient and knowledge of their social circumstances (family, job, significant relationships) coupled with their own clinical experiences with depression and antidepressants. has In our study GPs acknowledge the complexity of contextual factors that influence the trajectory of depression and discontinuation of antidepressants and this has been described elsewhere ^{30, 31}. The perceived cause of depression has been reported as both a barrier and facilitator to deprescribing anti-depressants. Suggesting antidepressants correct a biochemical deficiency is likely to encourage a belief in the need for life-long use among patients ²²,

^{32, 33} while seasonal and life circumstances as triggers for depressive episodes can facilitate discontinuation ³⁴.

Associations between depression and ageing are well documented ^{30, 35}. In our study, GPs stated that older patients may have to remain on anti-depressants long term. More generally, it is a common perception that an accepted part of ageing is to become depressed ³⁶. More recently studies are emerging that negative ageing perceptions predict the persistence of depression and anxiety ³⁷. The low expectations for recovery among this cohort may be a modifiable factor in GPs and patients that may lend itself to interventions targeting recovery and antidepressant discontinuation. Information on the rate of relapse after antidepressant discontinuation in this cohort would be useful.

Avoiding destabilisation of a patient during and following discontinuation was a primary concern for GPs in our study. Fear of relapse has been reported in the literature among both GPs and patients ^{21, 30, 38}. Rates of relapse during discontinuation are currently unavailable for different patient groups, with a recent systematic review reporting rates of between 15% to 80% for various interventions ³⁹. Information on rates of relapse during discontinuation and amongst those who stay on antidepressants long term would be useful to inform clinical decisions. Some evidence suggests that cognitive behavioural therapy or mindfulness-based cognitive therapy can help patients discontinue antidepressants without increasing the risk of relapse/recurrence ³⁹⁻⁴¹. Limited access to psychological services in the Irish healthcare system, was highlighted by GPs. Fractured care such as spilt care between psychiatrists and GPs or consultations with multiple GPs were identified as barriers to discontinuing antidepressants. This is a persistent feature of mental health care in Ireland, which liaison psychiatry models partly address⁴², although more resources and research are needed to expand collaborations⁴³.

Regarding drug choice and dose, prescribing was influenced by GP's prior clinical experience and SSRIs were viewed as an effective and safe choice echoing the literature ^{38, 44}. GPs were in agreement that tapering slowly was the preferred way to reduce and eventually stop an antidepressant medication. Prescribing practices were developed through seeking advice from colleagues in general practice and psychiatry experience, and by exploring patient preferences. Prescribers viewed antidepressants as one component of a multi-faceted approach in which GPs valued their therapeutic function as listener, counsellor and facilitator. These findings are in keeping with the literature ⁴⁴. The use of sub therapeutic doses may be a helpful dose reduction strategy ⁴⁵ but is not currently in line with current recommendations and requires further research to determine feasibility and effectiveness amongst patients.

Implications to research and practice

Negative expectations and experiences of ageing can reinforce perceptions that antidepressants are long-term treatments, and that discontinuation is thus undesirable. This needs to be countered by appropriate patient and practitioner education. GPs require access to nationally integrated guidance and care pathways on antidepressant discontinuation with a particular focus on supporting deprescribing for older patients and patients on long term antidepressants. Treatment plans and formal practice protocols that include discontinuation and scheduled medication review rather than current informal

approaches may support optimal antidepressant discontinuation. Access to evidence based psychological interventions, patient leaflets and web information sources may prevent patient self-discontinuation and relapse. Audits and inbuilt prompts on GP prescribing software and on pharmacy systems to review a patients' medication may support antidepressant discontinuation. Studies that examine rates of relapse during discontinuation amongst older patients and those who stay on antidepressants long term would be useful to inform clinical decisions.

Strengths and weaknesses

This study, the first of its kind in an Irish context, employed robust and transparent methods to conduct and report study findings. A strength of this study is recruitment of a diverse sample of GPs, with experience ranging from less than 5 years to more than 25 years, practicing in a range of urban and rural population practices. A detailed description of context, methods, and findings facilitates judgement of transferability and validity. Multiple coders from different professional backgrounds supported a more complex understanding of the phenomenon and a greater reflexivity in the data analysis. However, findings should be interpreted in the context of study limitations where the sample of GPs was small and affiliated to one country. Furthermore, participants were from a network of GP tutors affiliated with the ULEARN-GP network and who because of their role in education may have an enhanced knowledge of deprescribing. While data saturation was reached, theoretical saturation and theory development was not within the scope of the study.

Conclusion

This paper explores factors involved in GP decisions behind deprescribing antidepressants. The findings suggest that multiple strategies including scheduled medication review, detailed guidance on tapering, audits, inbuilt prompts on GP prescribing software and access to evidence based psychological interventions and patient information sources may support optimal antidepressant discontinuation. Further research is required to document the risk of relapse when antidepressants are discontinued, particularly for older patients with multimorbidity and patients on long term antidepressant therapy.

Acknowledgements: The authors would like to thank all participants for their willingness to share their experiences. We would also like to thank Prof Anne MacFarlane for her mentorship and advice during the project.

Conflict of interest statement: The authors have declared no competing interests.

Funding: No funding.

Ethical approval: The project received ethical approval from the Research Ethics Committee, Faculty of Education and Health Sciences, University of Limerick, Ireland (Ref. No: 2019_06_36_EHS, REC-EHS).

Author contribution statement: DK was responsible for overseeing the project. DK and LG were responsible for study design. PG and JG carried out interviews under supervision of DK. JG, MN, PH, LG, JMcF and DK were involved in data analysis and write up of manuscript. All authors approved the final manuscript.

Data availability statement: Anonymised dataset can be made available to researchers upon reasonable request.

Patient and public involvement: Patients or the public WERE NOT involved in the design, or conduct, or reporting, or dissemination plans of our research.

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Supplementary information

An exploration of GP perspectives on deprescribing antidepressants: a qualitative study

Dervla Kelly, Justin Graffi, Maria Noonan, Philip Green, John McFarland, Peter Hayes, Liam Glynn

Table S1 Semi-structured interview guide

(blue text – instructions)

Introduction

Greet the doctor and thank him/her for giving appointment for interview.

Introduce yourself (interviewer) and who you are.

Provide the interviewee with the leaflet on the study design and briefly explain about the study.

Explain about confidentiality and use of the study outcomes.

Introduce the consent form. Ask for consent to audio recording and note taking.

Personal Characteristics

Current Position

Years in practice

Interview

1. Do you think diagnosis and treatment of depression in Ireland have changed over time?

Prompts: Overdiagnosis or underdiagnosis?; Treatment strategies

2. How do you feel about discontinuing antidepressants for patients in primary care setting?

Prompts: Challenges of deprescribing in this setting: managing discontinuation symptoms, relapse; Ease or difficulty of reviewing medicine profiles; Clarity of clinical notes and medicine charts; Communication

3. When prescribing medicines for these patients, what factors do you think are important to consider?

Prompts: Patient factors (e.g.: quality of life, benefit gained versus risk caused)
Physician factors (e.g.: prescribing habits, personal preferences, past experience)
Other factors (e.g.: secondary care prescribers, patient/relatives' wishes)

4. How do you approach reducing or stopping antidepressants in patients in primary care?

Prompts: Do they endorse this idea? Do they have any concerns? (patients' or relatives' views)

Do they find stopping medicines challenging? Why? How frequently do they tend to stop medicine(s)?

5. What factors do they take into account when making those decisions? Prompts: Do deprescribing decisions occur at the patient's regular clinical review multi-disciplinary meetings or at another time? Strategies: Dose reduction — from treatment to maintenance dose. Therapeutic substitution — moving patients off antidepressants to another type of treatment; Non pharmacological interventions; Self-regulation — taking antidepressants in an individually tailored regime to minimise discontinuation symptoms.

6. If there were a guideline designed to assist prescribers in making decisions around deprescribing antidepressants in patients, would you consider this to be useful for your clinical practice?

Prompts: What type of guidance would they find useful? Would they find deprescribing guidelines helpful or burdensome? Would guidelines make it easier or more efficient to review patients' medicine lists?

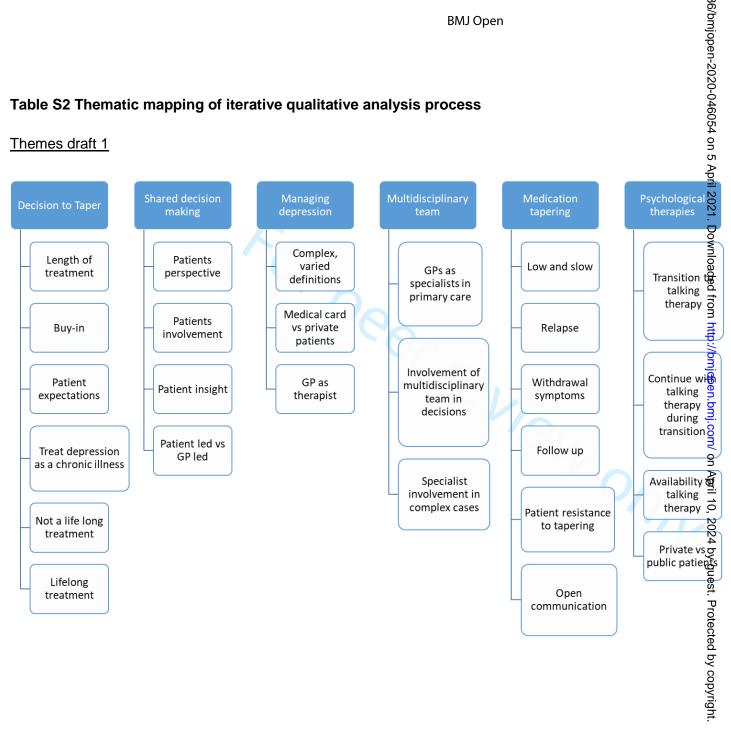
7. Is there anything you think you would like to help you with this process of reducing/stopping antidepressants (i.e. deprescribing)? Is there anything that could make this process easier

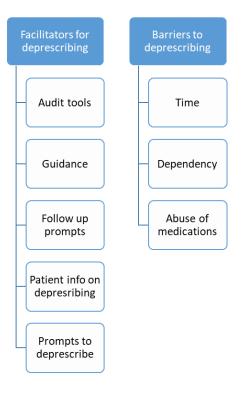
Closing

Switch off the recorder. Thank interviewee for time and inputs. Ask the interviewee if he/she wants to share anything. Assure the sharing of study results with interviewee. Ask permission to get back to interviewee for any clarifications/further information.

Table S2 Thematic mapping of iterative qualitative analysis process

Themes draft 1





44 45 46

Social factors

Patient context: life

events, lifestyle,

spiritual

Definition of

depression: over

medicalization of

non-medical problem

Page 22 of 26

45 46

Themes Draft 3 **Decision making**

Shared decision making: patient expectations, GP led discontinuation

process

Patient autonomy: self-discontinue, Patient led discontinuation

Medical Factors

Facilitators

- •Improvement of symptoms and functionality
- ·length of improved symptoms
- severity of depression
- •repeat prescriptions

Barriers:

- ·lack of response
- comorbidities
- relapse
- •age of patient
- withdrawal
- •history of recurrence
- •length of antidepressant use

Access to care: psychological services, time constraints, knowledge of patient

> Differences in approaches: personalised approach of GP

Seeing a psychiatrist

Practice factors

For peer review only - http://bmjopen.bmj.com/site/about/guidelines.xhtml

Patient's

expectations,

patient's wishes

Reluctance to

discontinue

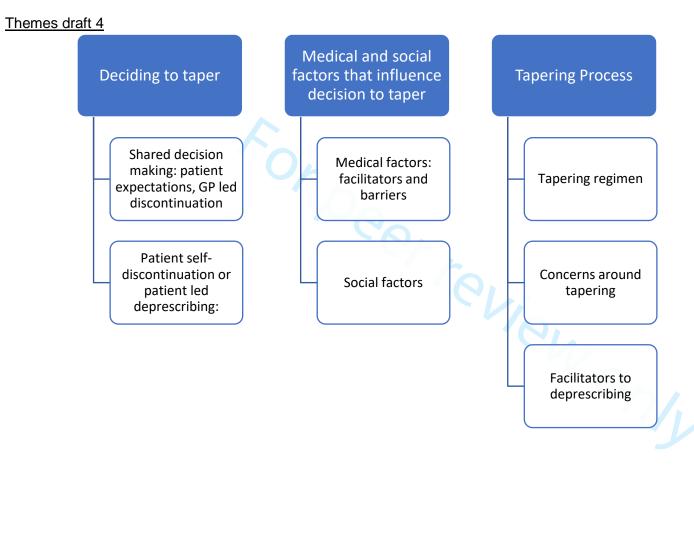
Life events

Patient self-

discontinuation

Patient awareness

Demographics



Themes draft 5

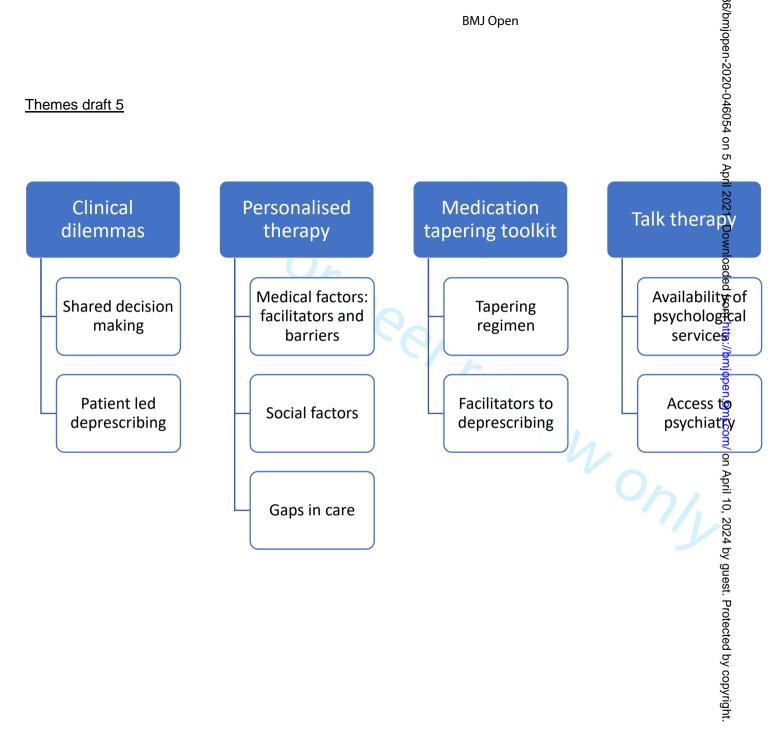




Table S3 assessment of the manuscript against the consolidated criteria for reporting qualitative research (COREQ) checklist(1).

COREQ checklist Domain 1: I	Research	Location in ma	anuscript (Section, page no.)
team and reflexivity			
Personal Characteristics	10.50		
1. Interviewer/facilitator	JG, PG		Methods - 4
Which author/s conducted			
the interview or focus group?	DO DO MO		T'01 4
2. Credentials	PG: BSc MSc		Title page - 1
What were the researcher's	JG: BSc MSc		
credentials? E.g. PhD, MD	Craduata antr	v madical	Methods - 4
3. Occupation What was their occupation at	Graduate entr students	y medicai	Methods - 4
the time of the study?	Students		
4. Gender Was the	Male		_
researcher male or female?	Walc		
Experience and training	PG: MSc Publ	lic Health	_
What experience or training	Experienced of		
did the researcher have?	researcher.	quantati v o	
aid the researcher have.	JG: epidemiol	ogy and	
	literature revie		
Relationship with participan		······································	
6. Relationship established	No		-
Was a relationship			
established prior to study			
commencement?			
7. Participant knowledge of	Participants w	ere briefed on	-
the interviewer	the purpose of		
What did the participants	and understoo	d that it was	
know about the researcher?	a research pro		
e.g. personal goals, reasons	DK. Ethical ap		
for doing the research		been granted, participants	
	reviewed the p		
	information do		
	prior to giving		
	informed cons	ent to be	
O later de ver abore et rieties	involved.	loto.d	
8. Interviewer characteristics What characteristics were	No interviewer biases identification		-
reported about the	biases identilii	eu.	
interviewer/facilitator? e.g.			
Bias, assumptions, reasons			
and interests in the research			
topic			
Domain 2: study design			
Theoretical framework			
9. Methodological orientation	Open coding v	with thematic	Methods – 4
and Theory	content analys		
What methodological	1		
orientation was stated to			
underpin the study? e.g.			
grounded theory, discourse			
analysis, ethnography,			
phenomenology, content			
analysis			
Participant selection			

10. Sampling How were participants selected? e.g.	Recruited via email	Methods - 3
purposive, convenience, consecutive, snowball		
11. Method of approach How	Email	Methods - 3
were participants approached? e.g. face-to-		
face, telephone, mail, email 12. Sample size How many	Ten	Methods - 3
participants were in the study?	TGII	Methods - 3
13. Non-participation How	Of the first ten respondents	-
many people refused to	that were invited for a semi-	
participate or dropped out?	structured interview, all	
Reasons?	gave informed consent and	
	completed the interview.	
	There were no participants who subsequently refused	
	to participate, withdrew	
, and the second	consent or dropped out.	
Setting		
14. Setting of data collection	Data was collected via	-
Where was the data	Skype or in non-clinical	
collected? e.g. home, clinic,	professional location e.g.	
workplace	meeting room in a conference centre or	
	university.	
15. Presence of non-	No	-
participants	\sim	
Was anyone else present		
besides the participants and		
researchers? 16. Description of sample	7 males, 3 females.	Table 1
What are the important	Level of experience ranged	Table 1
characteristics of the	from <5 years to > 25	7
sample? e.g. demographic	years.	
data, date	Data was collected	
	between July 2019 and	O_{λ}
Data collection	March 2020	
17. Interview guide Were	Interviews were semi-	Methods – 4 and
questions, prompts, guides	structured using a guide	supplemental information
provided by the authors?	(supplemental table 1);	table 2
Was it pilot tested?		
18. Repeat interviews	No	-
Were repeat interviews		
carried out? If yes, how many?		
18. Repeat interviews	No	-
Were repeat interviews		
carried out? If yes, how		
many?		
19. Audio/visual recording	The semi-structured	-
Did the research use audio	interviews were audio	
or visual recording to collect the data?	recorded using a laptop.	
ine uala !		

20. Field notes	No additional field notes	-
Were field notes made	were made.	
during and/or after the		
interview or focus group?		
21. Duration What was the	The semi-structured	Methods - 4
duration of the interviews or	interview durations ranged	
focus group?	from 18:25 to 53:29	
	(minutes : seconds)	
22. Data saturation	No	-
Was data saturation		
discussed?		
23. Transcripts returned	No	-
Were transcripts returned to		
participants for comment		
and/or correction?		
Domain 3: analysis and findi	ngs	
Data analysis		
24. Number of data coders	Three	-
How many data coders		
coded the data?		
25. Description of the coding	Open coding. Coding	Methods - 4
tree	described in methods	
Did authors provide a	section.	
description of the coding		
tree?		
26. Derivation of themes	Themes were derived from	Methods – 4-5
Were themes identified in	the data	
advance or derived from the		
data?		
27. Software What software,	Microsoft Word and Excel	-
if applicable, was used to		
manage the data?		
28. Participant checking	No	-
Did participants provide		
feedback on the findings?		
Reporting		
29. Quotations presented	Yes, specific comments	Results – 5-11
Were participant quotations	were supported with direct	
presented to illustrate the	guotes attributed to	
themes / findings? Was each	anonymised participant	
quotation identified? e.g.	, , , , , , , , , , , , , , , , , , , ,	
participant number		
30. Data and findings	Yes	-
consistent		
Was there consistency		
between the data presented		
and the findings?		
31. Clarity of major themes	Yes	-
Were major themes clearly		
presented in the findings?		
32. Clarity of minor themes	Subthemes were identified	
	under each theme.	
1		

References

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