



Frost, R., Beattie, A. M., Bhanu, C., Walters, K., & Ben-Shlomo, Y. (2019). Management of depression and referral of older people to psychological therapies: a systematic review of qualitative studies. *British Journal of General Practice*, 69(680), e171-e181. https://doi.org/10.3399/bjgp19X701297

Peer reviewed version

Link to published version (if available): 10.3399/bjgp19X701297

Link to publication record in Explore Bristol Research PDF-document

This is the author accepted manuscript (AAM). The final published version (version of record) is available online via Royal College of General Practioners at https://doi.org/10.3399/bjgp19X701297 . Please refer to any applicable terms of use of the publisher.

University of Bristol - Explore Bristol Research General rights

This document is made available in accordance with publisher policies. Please cite only the published version using the reference above. Full terms of use are available: http://www.bristol.ac.uk/pure/user-guides/explore-bristol-research/ebr-terms/



How do healthcare professionals manage depression and refer older people to psychological therapies? A systematic review of qualitative studies.

Journal:	The British Journal of General Practice
Manuscript ID	BJGP-2018-0126.R1
Manuscript Type:	Systematic Review
Date Submitted by the Author:	n/a
Complete List of Authors:	Frost, Rachael; University College London, Primary Care and Population Health Beattie, Angela; University of Bristol, Population Health Sciences Bhanu, Cini; University College London, Primary Care and Population Health Walters, Kate; University College London, Primary Care and Population Health Ben-Shlomo, Yoav; University of Bristol, Population Health Sciences
Keywords:	Depression < Mental health, Care of the elderly < Patient groups, Systematic reviews < Research methods

SCHOLARONE™ Manuscripts How do healthcare professionals manage depression and refer older people to psychological therapies? A systematic review of qualitative studies.

Rachael Frost* 1

Angela Beattie²

Cini Bhanu¹

Kate Walters¹

Yoav Ben-Shlomo²

¹Department of Primary Care and Population Health, University College London, London, UK.

²Population Health Sciences, University of Bristol, Bristol, UK.

*Corresponding author: Rachael Frost, Department of Primary Care and Population Health, University College London, Royal Free Campus, Rowland Hill Street, London, NW3 2PF. Tel: 0207 8302881, Email: rachael.frost@ucl.ac.uk

Word count 4160

ABSTRACT

Background: Depressive symptoms are common in later life and increase risk of functional and cognitive decline and use of healthcare services. Despite older people expressing preferences for talking therapies, they are less likely to be referred than younger adults, particularly when aged over 80 years.

Aim: To explore how healthcare professionals manage older people in relation to depression and referrals to psychological therapies.

Design and Setting: Systematic review and thematic synthesis of qualitative studies.

Method: We searched MEDLINE, EMBASE, PsychINFO, CINAHL and SSCI (inception-March 2018) and included studies exploring healthcare professionals' views regarding management of late life depression across all settings. We excluded studies of older people's views or depression management across all ages.

Results: We included 27 studies, predominately focussing on general practitioners' and primary and community care nurses' views. Many healthcare professionals felt late life depression was primarily attributable to social isolation and functional decline, but treatments appropriate for this were limited. Clinicians perceived depression to have associated stigma for older adults, which required time to negotiate. Limited time and complexity of needs in later life meant physical health was often prioritised over mental health, particularly in frailer people. Good management of late life depression appeared to depend more on the skills and interest of individual GPs and nurses than a structured approach.

Conclusion: Mental health needs to be a more prominent concern within the care of older adults, with greater provision of psychological services tailored to later life. This may facilitate future identification and management of depression.

Keywords: Primary Health Care, General Practice, Review, Qualitative Research, Aged, Frail Elderly, Depression

Prospero registration: 42017055207

HOW THIS FITS IN

- Older people are often prescribed antidepressants and are less likely to be referred to psychological therapies, particularly when they are aged 80+
- We synthesised qualitative research to understand healthcare professionals' management of late life depression, particularly regarding psychological therapy referrals
- Clinicians had little time to negotiate the complex issue of depression and so prioritised physical over mental health needs in older people.
- Healthcare professionals reported a lack of treatments that were both available and appropriate, and so management depended on individuals' skills rather than a coherent structure

BACKGROUND

Late life depression is highly prevalent – estimates suggest 4.6-9.3% of adults aged 75+ have major depressive disorder and up to 37.4% have subthreshold depressive symptoms (1). Depressive symptoms are associated with poorer quality of life, increased mortality risk, cognitive and functional decline and greater healthcare service utilisation (2–4). Between 2014 and 2039, the number of people in the UK aged over 60 years is projected to increase from 14.9 to 21.9 million people (5) and so the appropriate management of late life depression will become increasingly important.

Late life depression is often managed in primary care, with 87.1% prescribed an antidepressant (6–8). Antidepressants have some limitations: increased age is associated with reduced efficacy (9) and potential adverse effects, and they have not been comprehensively studied in very old age groups (e.g. 85+ years), people with serious medical comorbidities or those with poor nutritional status (10,11). Older adults generally report a preference for talking therapies, especially for low-level symptoms, and a willingness to talk to mental health providers about their emotional health (12–15). However, within the UK, older adults' access to Improving Access to Psychological Therapies (IAPT) services is low (16,17), despite its effectiveness (18). Recorded referrals are as low as 3.5% and this inequality increases with greater age – those aged 85+ are five times less likely to be referred for psychological therapies than those aged 55-59, and a third more likely to be prescribed an antidepressant (8). Qualitative studies can offer insights into reasons for these low referral rates (19,20). Two previous meta-syntheses explored depression management in the general adult population (21,22), but these did not comprehensively explore differences in management due to age. Within this systematic review we therefore aimed to scope the qualitative literature to investigate how health care professionals (HCPs) manage older people in relation to depression, particularly regarding psychological therapy referrals.

METHODS

We used a thematic synthesis approach from a constructivist perspective, which aims to produce outputs directly relevant to policymakers and practitioners and allows reviewers to look for differences in perspectives according to study characteristics, such as type of healthcare professional (23,24). The protocol was registered on PROSPERO (ID 42017055207).

We searched Ovid MEDLINE (1946-Mar 2018), EMBASE (1974-Mar 2018), PsychINFO (1806-Mar 2018), CINAHL (1937-Mar 2018) and Web of Science Social Sciences Citation Index (1900-Mar 2018) (see Appendix 1 for Medline search terms). We located grey literature through ETHOS searches (inception-April 2018). Studies were eligible for inclusion when:

- Most participants were primary or secondary healthcare professionals
- Qualitative methods were used to collect and analyse data in a substantial part of the study
- Views and experiences of the treatment and management of older people with depression

We excluded studies focussed upon:

- Depression management in younger/all age groups or in people with a specific medical condition e.g. post-stroke
- Exploring the effects or implementation of new interventions
- Later life mental health without specific depression data
- Social services, third sector or trainee staff views only
- Pharmacotherapy or suicide only
- Quantitative or non-empirical
- Studies published in a language other than English (due to lack of translation facilities).

Two reviewers (RF and CB) independently assessed 10% titles and abstracts (88% agreement, with disagreements resolved through discussion) and a further 10% (91% agreement). Each reviewer then screened half of the remaining records. Full texts were appraised independently by two reviewers (RF and CB), with disagreements resolved through discussion or consultation with the whole team.

Data extraction and synthesis

Data relating to study aims, location, participants, data collection, analysis, themes and author's main implications were extracted into a Microsoft Word table by one reviewer (RF) and papers were imported into NVivo 12 (25) for synthesis. We appraised study quality using seven questions derived from the Critical Appraisal Skills Programme checklist and other checklists (26–28) (see Table 1). RF and AB or CB independently assessed study quality according to individual items and gave an overall subjective judgement of quality (very poor, poor, not very good, good, very good, excellent) and reporting quality (poor, acceptable, good). We assessed quality to provide an overall summary of the evidence base, but did not exclude studies or weight our findings within the synthesis on the basis of quality, as the role of quality assessment within qualitative systematic reviews has a number of associated debates (28).

We followed the thematic synthesis approach of coding text, developing descriptive themes and 'going beyond' the primary studies to develop analytical themes and answer the questions posed by the review (23). Relevant findings sections of included papers were coded line-by-line by RF, with independent analysis of one third of the papers by AB. These codes were aggregated to create descriptive themes that were summarised and discussed by all authors (see Appendix 2 for framework). Finally, in order 'to go beyond the data,' analytical themes were developed by RF. Potential connections and groupings were modelled, with statements written out hypothesising links, connections and themes. These were compared to coded data within and across studies and HCPs and refined until subthemes and themes were constructed. The analytical themes were reviewed by all authors (a health services researcher, two academic GPs, a clinical epidemiologist/public health specialist and an academic nurse), refined and agreed.

RESULTS

Out of 1471 unique records, we screened 161 full texts and included 27 papers of 26 studies in our qualitative synthesis (Figure 1). The majority of studies were carried out in Western countries (8 UK, 8 USA, 5 Australasia, 3 Scandinavia, 1 Canada), with one each in Taiwan and India, and reflected both publicly-funded and insurance-based systems (see Table 2 (Appendix 3 for detailed study summaries)).

Qualitative data were mostly collected using interviews (19,20,29–44) and/or focus groups (36,41,45–48), with two ethnographic studies (49,50), one conference and nominal group technique (51), one mixed methods survey (52) and one multiple case study (53). Two thirds of studies were of good/very good overall quality, with most meeting each checklist criteria (see Tables 1 & 2). The vast majority were well reported.

[Figure 1 about here]

Most HCPs were sampled from primary and community healthcare (e.g. GPs, practice nurses, home health nurses) (19,20,30,31,33,34,36,41–44,46,49,50,52), with six sampling both primary and secondary care professionals (29,37,47,48,51,53) and a small number studying HCPs in care settings (35,40,45) (Table 2). One study sampled community psychiatric nurses (CPNs) (38) and one included practice counsellors (19). As similar groups of professionals were often referred to under different names in different countries, we grouped each professional under UK headings (e.g. GPs for primary care physicians) in our thematic synthesis.

We found five themes relating to management: 1) Avoiding medicalisation of social circumstances, 2) Assumptions regarding older people and mental health, 3) Physical health is prioritised throughout healthcare, 4) Therapeutic options as a postcode lottery and 5) Variation in skills, training and approaches across all settings.

[Table 1 about here]

[Table 2 about here]

1. Avoiding medicalisation of social circumstances

Late life depression was felt to lack suitable therapeutic solutions as it was considered to mainly arise from 'justifiable' causes, many of which related to ageing. The majority of HCPs across all countries primarily attributed late life depression to difficult social circumstances, and in particular age-related social issues (e.g. loneliness, bereavements) and/or physical health issues, frailty and functional decline (19,20,34–36,39,41–46,53). Many GPs and nurses therefore felt there was a definite difference between sadness/distress that 'understandably' related to these issues, and a 'clinical' depression, but rarely defined where this border lay (19,20,33,34,41,45).

"GPs described depression as part of a spectrum including loneliness, lack of social network, reduction in function and very much saw depression as 'understandable' and 'justifiable'" (20 p.371)

Consequently, across all studies discussing this there was a clear tension as to whether medical treatment (particularly antidepressants) could be beneficial or represented a medicalisation of social issues, further complicated by widespread views from GPs and nurses that addressing depression in some way was essential (19,20,29,33,34,41–43,45).

"GPs tended to acknowledge social and emotional causes that required non-drug interventions they could not always provide, and although antidepressants offered a solution to some patient's

problems, there appeared to be sense of unease about prescribing a medical intervention for a social cause" (33 p.e147)

'Social solutions' (43) (e.g. day centres) were considered the most appropriate approach (20,36,37,41,43,46,47), however although these addressed the perceived cause they were not always regarded as effective, leading to therapeutic pessimism.

"a man who is clearly isolated ... taking him out to the day centre, that'll be good for him won't it, sit in a room with other demented, depressed people & make your mood lift. It's not gonna happen' (G3, psychologist, 97-100)." (53 p.120)

Where depression was conceptualised as a response to physical illness and/or disability (19,20,34–36,39,42–44,53), even fewer solutions were identified, with the person's future regarded as negative (53). Physical health problems were deemed a barrier to psychological treatments by psychologists and CPNs (38,53) and psychological approaches were seen as inappropriate by some GPs (42). A minority of home care nurses and GPs reported using clinician support to encourage adaptation to disability (34,36). Otherwise, in response to disability, medicalisation (and subsequent antidepressant prescribing) was seen as a better alternative to doing nothing (33,42).

"usually because they're bloody sick, and is a psychologist going to help that? I don't think so." (D6)
(42 p.1061)

2. Assumptions regarding older people and mental health

Healthcare professionals held a number of assumptions regarding older people's attitudes to depression. The most pervasive assumption was that older people normalised depression as part of ageing, isolation and decline and felt it to be stigmatising (19,20,33,36,39,40,42–44,48,53). Few discussed the idea that older people may have early or mid-life experiences of depression. HCPs consequently assumed that late life depression was likely to be hidden – that older people were resistant to articulating depression or distress, instead 'sprucing up' for the GP or presenting somatically (29,30,33–36,39,41–44,51,53).

"Older people were reported to attribute symptoms differently, and to have more rigid and strongly held beliefs about stigma, the desirability of coping unsupported, and the implications of failure to do so." (43 p.158)

GPs and district nurses therefore felt that depression took time, effort and skill to actively seek out, through indirectly focussing on symptoms and related concepts such as loneliness or homesickness, using screening tools or medicalising language (e.g. 'clinical depression' or 'neurobiology') to reduce stigma (20,29,32,34,39). This assumption of stigma and hidden depression did not translate to home and residential care settings - observational and HCP-reported data suggested overt symptoms, such as crying, reporting feeling sad and poor self-care (35,41,49), were displayed, although this did not increase the likelihood of treatment (see Theme 3).

[observation] "A patient says "I'm feeling sad today," while the nurse comments on a blood pressure reading." (49 p.135)

Although individual treatment preference was considered more important than age in some papers (34,36,41), there were widespread assumptions that older adults disliked and were reluctant to engage with any mental health-related treatment. Psychiatry was considered particularly stigmatised, and so psychiatry referrals were a last resort (43).

"Attaching depression to mental illness was also reported as a barrier to older adults' seeking mental healthcare services[...] "They will not accept seeing a psychiatrist because in general, people believe that psychiatry is for treating crazy people"" (39 p. 1668)

Decision-making power in late life depression rested chiefly with professionals. Some HCPs (mainly GPs) assumed that older adults were uninterested in talking therapies or that they would be ineffective (20,33,34,37,39,48), particularly if computer-based (44) and so were unlikely to dismiss these as an option (37). This did not always preclude referrals if other treatments were ineffective, but ageist stereotypes were also evident in psychological therapists and CPNs, who regarded felt that older people were unwilling to change, and discharged themselves more quickly (38,53).

"it would not be obvious to me at 76 what would improve' (G3, psychologist, 612)." (53 p.114)

Some HCPs felt older adults conceptualised antidepressants as having a stigma or being addictive, and so required persuasion (30,33,39,42). Despite GPs feeling they had greater influence upon older than younger people (36,43), because they assumed older people were resistant, they felt it was easier to circumvent 'depression' during treatment through using GP support or prescribing antidepressants for 'insomnia' or 'pain' (34,39).

"I would say that even seeing someone and talking a bit in the GP surgery is a treatment in a sense although they might not think of it like that, they might just think it's a chat." (GP9, p.3)" (34 p.172)

3. Physical health is prioritised across healthcare settings

Implicitly and explicitly, physical health issues were prioritised over mental health (20,29,30,34–39,41,43,44,48,49,53). Severe depressive symptoms could prompt action, but severity was usually defined in terms of physical impact (e.g. suicidal ideation, impact on discharge planning) (36,43,48). Depression was therefore sometimes avoided completely, despite some recognition that physical and mental health interacted (34,36,47).

[observation] "A patient says "I just want to die," and the nurse nods head without verbal response and asks if the patient has had a recurrence of a bothersome physical symptom" (49 p.135)

This also depended on organisational time pressures. Non-psychiatric secondary care was considered a poor place for depression management, due to multiple assessments from varied professionals, the acute focus and the lack of an identified responsible person and follow-up (48). The widespread view that late life depression was best managed in primary care in many UK, Australian, US and Taiwanese studies (20,39,41–43,48), with mental health services as consultative support (43), was however at odds with the time available to GPs.

"[they are] commonly complaining of not having enough time to address the many complex issues surrounding depression in later life. "In 10 minutes there is a lack of time as to what you can do with somebody ...sometimes you don't get to the nitty gritty." (GP5, p.4)" (34 p.176)

In the US, home nursing visits were only eligible for insurance reimbursement where the older person had a documented need for physical health care (36,38), whilst UK district nurses' time was limited more implicitly (41). Mental health was viewed by many HCPs as outside of their role, reflected in their lack of mental health training (20,31,34–36,41,42). In this case mental health was addressed only if they had time or outside of appointments (e.g. GPs with extended consultation times (34), home care nurses scheduling evening appointments (36,39,41)).

"The district nurses described strategies to provide the time they felt people needed but they were unable to provide as an accepted part of their role. This involved logistical approaches such as leaving certain visits until the end of the day or scheduling a visit at weekends." (41 p.107)

Addressing psychological issues as a key part of physical healthcare for a condition (e.g. cancer) were viewed as more accessible for older people (44). Some GPs justified a physical focus as older people were at higher risk of illnesses such as dementia or cancer, which could have a similar presentation (34,39). However many felt that despite the commonality of depression in frail and housebound people across primary, community and acute settings, it was much more likely to be overlooked (33,34,43,48).

"Paradoxically, as old age and ill-health became more integrally associated with depression and its treatment, the latter was less often mentioned in consultations" (33 p.e149)

Conversely to this prioritisation of physical health, few concerns were expressed across papers regarding how antidepressants might impact upon physical health issues (e.g. falls risk) (20,42). A sense of therapeutic inertia seemed to occur once frail patients were taking antidepressants, as clinicians feared upsetting a delicate equilibrium or leading to care problems (33,35,45).

4. Therapeutic options as a postcode lottery

Whilst services such as psychological therapies, psychiatric services, social workers or social activities were considered appropriate to the perceived causes of late life depression, they were constrained by wide differences in provision across localities (20,30,33–37,39,41–44,46,48,50,52). Long waiting times, narrow eligibility criteria, poor integration with other care, being inappropriate to needs/preferences, financial constraints and limited duration of support were key issues (33,36,41–43,45,48,52). This led to an automatic discounting of psychological therapies or social approaches as an option.

""You've got to be pretty sick or mad to get any extra help."" (20 p.374)

As GPs and nurses felt that depression did need to be addressed when raised, having solutions that were both appropriate and available led to a greater inclination to identify late life depression, regardless of other factors, particularly if they were less confident to manage it themselves. However, the reverse was true when services were not available (20,34,44).

"The majority of health care professionals described a reluctance to make the diagnosis of depression in an elderly person because of a feeling that they had nothing to offer the patient" (20 p.373)

When nothing else could be offered GPs and community nurses tended to provide support themselves to the older person in various ways (see Theme 5) or prescribe antidepressants (33,45). This was not

always related solely to provision, however – some clinicians reported needing further local service knowledge (35,48,51).

5. Variation in skills, training and approaches across all settings

Differences in healthcare professionals' skills, interest and perceived role in depression management were reported across all settings. Those with greater confidence in depression (usually GPs) were more likely to raise the topic (20,32,34,36,42–44,47). Confidence related to training and experience, which non-psychiatric nurses and acute care professionals expressed a need for (20,31,36,37,41,44,48). Personal interest also influenced individual GP approaches, for which a number of studies developed typologies (30,34,50). For many GPs, active listening and using the therapeutic relationship to change views about depression was seen as an effective and sufficient treatment strategy, especially for mild symptoms (20,34,39,41–43,46,47,50), and so they were reluctant to refer on. The minority that felt untrained for this (20,43) or that their remit was only to refer or prescribe medication (30,34,53) were more likely to refer when these services were available. These different approaches and attitudes were clearly a pivotal factor with clear effects upon patients' and teams' experiences:

"Residential aged care services that had positive experiences with GPs found the referral process to other external services for depression and subsequent outcomes for residents far more positive and beneficial. On the other hand, an equal number of participants expressed disappointment at the services provided by GPs." (35 p.20)

Some nurses felt confident they had a role in depression identification and management through reporting concerns to the GP and coaching patients on broaching depression (29,32), emotionally connecting with patients (49), referring to local services (35) or counselling regarding physical loss and disability (30). However, some nurses and many GPs felt it was outside of nurses' role and that they lacked skills and/or training to manage it (20,31,35,41,44,45).

"Nurse: We are not skilled in differentiating between these conditions. If they cry, we call it depression and give them antidepressants. And that's it." (45 p.253)

Inter-professional communication played a key role in home nursing and residential care settings (30,39,41,44,45,49). The greater number of communication channels required to refer to primary care and the associated hierarchical issues meant that concerns could be lost or dismissed even if depression was adequately identified (35,40,41,45).

Other relevant professionals were thought to include social workers (US and Australia) (29,48), psychiatrists (47) and multi-purpose community health workers (India) (46). Psychologists and psychiatrists were considered skilled in late life depression management, but little further information regarding psychiatrists' views was found. Nevertheless, strong mental health service collaborations were considered important and increased other HCPs' confidence in managing depression, although these collaborations appeared to be incidental, arising from interested individuals rather than a clear structure (34,43,44,51).

"most participants emphasized that their best collaborations evolved on a case by case basis as they found health professionals on mental health teams with whom they could readily consult, solve problem, and share information." (51 p.5)

DISCUSSION

Summary

We systematically reviewed 27 qualitative studies of healthcare professionals' management of older people with depression. We found that decisions regarding the identification and management of depression in later life were underpinned by strong assumptions across all settings that older people were resistant to discussing depression and its treatment, compounded by prioritisation of physical over mental health and high variation in skills and training, particularly for nurses. Beliefs about the causes of depression and its social origins underpinned decisions regarding when and what treatment was appropriate, particularly for GPs, which further depended upon a postcode lottery regarding which treatments were available for consideration.

Strengths and limitations

We systematically identified studies and drew upon views from a range of professionals, countries and settings, different socioeconomic statuses and ethnicities. This provided a more complete picture of managing depression in older adults, including in those with frailty or multimorbidity. We took a constructivist approach to the review to identify and contrast multiple conceptualisations of late life depression. Other reviews have focussed mainly upon GPs (22,54), whereas our review included the views of nurses and other HCPs. However, most studies were carried out in high-income Western countries and only English studies could be included due to a lack of resources for translation, although one excluded study reported in German found themes almost identical to our review (55). Similar themes were found in studies from Taiwan and India, although family played a larger role, so our findings may have some transferability to these settings. We did not use meta-ethnography, which may have offered greater conceptual integration, but the ability to compare across healthcare professionals was considered a key advantage for this review (24). Included studies had were mostly good quality. Theses provided a richer source of data than papers, however we could mainly only access UK theses, suggesting further qualitative evidence may exist from other countries.

Comparison with existing literature

Whilst similar themes of regarding depression as a normal response to challenging social circumstances, cautions with medicalising social issues and a lack of psychological therapies have been found in HCPs' views of depression in adults (22,54), ideas such as 'secondary gains' to a depression diagnosis (e.g. avoiding social problems, feelings of powerlessness or work) or overtly negative attitudes were not discussed regarding late life depression (22,54), possibly as it was felt to be more justifiable. Other elements not discussed in this review include taking a short-term view for older adults (e.g. GPs' reduced concern around addiction to benzodiapezines as people were unlikely to live much longer (56)) and involving family and/or supporting carers in depression management (57,58). Social workers and family carers expressed similar views around late life depression, a lack of priority for mental health and

low availability of resources (59,60) and poor psychological therapy access for older adults has been documented (8). This may be compounded by ageist views and a lack of motivation to work in the sector by psychological trainees (61). Older adults similarly normalise depression, although some suggested they were more likely to raise depression in emotional than somatic terms and lacked awareness of psychological treatments (62), despite reporting preferences for them over antidepressants in other studies (12,13,15).

Implications for research and practice

This review suggests that primary care services for older people do not currently prioritise older adults' mental health to the same extent as physical health, compounded by a lack of referral options suitable to older people's needs. Further investment in psychological and social resources is needed to enable mental health in later life to achieve equitable priority with physical health, particularly if older adults are to be encouraged to use psychological services. UK guidelines recommend planning partnerships between local authorities, NHS, community organisations and voluntary sector providers to improve mental wellbeing and promote independence in older adults (63). Examples of successful management within this review suggest that older people can also be supported better with adequate staff training and better links to other services. Within all services, roles and responsibilities of healthcare professionals, particularly for nurses, need to be more clearly outlined. Most GPs in this review felt late life depression was within their remit. Patient views have suggested that some people feel that GPs would not be receptive to discussing mood and that having a person outside of the GP consultation was beneficial (20,64).

Research into GPs' views of late-life depression has received substantial coverage and replicating this further in high income countries is likely to be unnecessary. There was a notable paucity of views of psychological therapists or psychiatrists in this review despite their role in treating late life depression, which remains an area for further qualitative research. Internet or 'bibliotherapy' (book-based) psychological approaches were also rarely discussed, and though depression in frailer populations was considered common, fewer solutions were identified for this subpopulation. Further research into effective and equitable treatments for late-life depression is needed.

CONCLUSION

This systematic review of qualitative studies suggests that depression in later life can be managed within primary care, but needs to be given greater priority when addressing the complex needs of older adults and sufficient staff training and clarity of staff roles is required. Investment in psychological therapies suitable for older adults and other social referral options are needed to facilitate the identification and treatment of late-life depression.

CONTRIBUTORSHIP STATEMENT

YBS, AB and KW conceptualised the idea for the review. RF developed and carried out searches and screened titles and abstracts. RF and CB screened full texts. RF and CB or AB assessed study quality. RF carried out the thematic synthesis, with AB undertaking blind coding on some papers, and input from

KW, CB and YBS. RF drafted the manuscript and AB, CB, KW and YBS provided feedback. All authors have read and approved the final manuscript.

ACKNOWLEDGEMENTS

None.

COMPETING INTERESTS

The authors declare no competing interests.

FUNDING

This paper presents independent research funded by the National Institute for Health Research School for Public Health Research (NIHR SPHR). The SPHR is funded by the NIHR. NIHR SPHR is a partnership between the Universities of Sheffield, Bristol, Cambridge, Imperial College London, UCL; The London School for Hygiene and Tropical Medicine; the LiLaC collaboration between the Universities of Liverpool and Lancaster and Fuse; The Centre for Translational Research in Public health, a collaboration between Newcastle, Durham, Northumbria, Sunderland and Teesside Universities. The views expressed are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health. The funders had no role in the study design, nor in data collection, analysis, or interpretation, nor in the writing of the report or the decision to submit the article for publication.

DATA SHARING STATEMENT

The NVivo database used for thematic synthesis is available from the authors upon request.

REFERENCES

- 1. Rodda J, Walker Z, Carter J. Depression in older adults. Br Med J. 2011;343:d5219.
- 2. White J, Zaninotto P, Walters K, Kivimäki M, Demakakos P, Shankar A, et al. Severity of depressive symptoms as a predictor of mortality: the English longitudinal study of ageing. Psychol Med. 2015;45(13):2771–9.
- 3. Diniz BS, Butters MA, Albert SM, Dew MA, Reynolds CF. Late-life depression and risk of vascular dementia and Alzheimer's disease: Systematic review and meta-analysis of community-based cohort studies. Br J Psychiatry. 2013;202(5):329–35.
- 4. Meeks T, Vahia I, Lavretsky H, Kulkarni G, Jeste D. A Tune in "A Minor" Can "B Major": A Review of Epidemiology, Illness Course, and Public Health Implications of Subthreshold Depression in Older Adults. J Affect Disord. 2011;129(1–3):126–42.
- 5. Government Office for Science. Future of an Ageing Population. London; 2016.
- 6. Dearman SP, Waheed W, Nathoo V, Baldwin RC. Management strategies in geriatric depression by primary care physicians and factors associated with the use of psychiatric services: a naturalistic study. Aging Ment Health. 2006;10(5):521–4.
- 7. Kok RM, Nolen WA, Heeren TJ. Efficacy of treatment in older depressed patients: A systematic review and meta-analysis of double-blind randomized controlled trials with antidepressants. J Affect Disord. Elsevier B.V.; 2012;141(2–3):103–15.
- 8. Walters K, Falcaro M, Freemantle N, King M, Ben-Shlomo Y. Sociodemographic inequalities in the management of depression in adults aged 55 and over: an analysis of English primary care data. Psychol Med. 2017;doi:10.1017/S0033291717003014.
- 9. Calati R, Salvina Signorelli M, Balestri M, Marsano A, De Ronchi D, Aguglia E, et al. Antidepressants in elderly: Metaregression of double-blind, randomized clinical trials. J Affect Disord. Elsevier; 2013;147(1–3):1–8.
- 10. Benraad CEM, Kamerman-Celie F, van Munster BC, Oude Voshaar RC, Spijker J, Olde Rikkert MGM. Geriatric characteristics in randomised controlled trials on antidepressant drugs for older adults: a systematic review. Int J Geriatr Psychiatry. 2016;31(9):990–1003.
- 11. Park H, Satoh H, Miki A, Urushihara H, Sawada Y. Medications associated with falls in older people: Systematic review of publications from a recent 5-year period. Eur J Clin Pharmacol. 2015;71(12):1429–40.
- 12. Landreville P, Landry J, Baillargeon L, Guérette A, Matteau É. Older Adults 'Acceptance of Psychological and Pharmacological Treatments for Depression. 2001;56(5):285–91.
- 13. Gum A, Areán P, Hunkeler E, Tang L, Katon W, Hitchcock P, et al. Depression treatment preferences in older primary care patients. Gerontologist. 2006;46(1):14–22.
- 14. Dakin EK, Arean P, E.K. D, Dakin EK, Arean P. Patient Perspectives on the Benefits of Psychotherapy for Late-Life Depression. Am J Geriatr Psychiatry. 2013;21(2):155–63.
- 15. Byers A, Arean P, Yaffe K. Low Use of Mental Health Services among Older Americans with Mood

- and Anxiety Disorders. Psychiatr Serv. 2012;63(1):66–72.
- 16. NAPT. Second Round of the National Audit of Psychological Therapies for Anxiety and Depression (NAPT) National Report November 2013. 2013;(November):169.
- 17. Department of Health. How to make IAPT more accessible to Older People. 2013.
- 18. Gould R, Coulson M, Howard R. Cognitive behavioral therapy for depression in older people: A meta-analysis and meta-regression of randomized controlled trials. J Am Geriatr Soc. 2012;60(10):1817–30.
- 19. Murray J, Banerjee S, Byng R, Tylee A, Bhugra D, Macdonald A, et al. Primary care professionals' perceptions of depression in older people: a qualitative study. Soc Sci Med. 2006;63(5):1363–73.
- 20. Burroughs H, Lovell K, Morley M, Baldwin R, Burns A, Chew-Graham C. `Justifiable depression': how primary care professionals and patients view late-life depression? a qualitative study. Fam Pract. 2006;23(3):369–77.
- 21. Barley EA, Walters P, Tylee A, Murray J. General practitioners' and practice nurses' views and experience of managing depression in coronary heart disease: A qualitative interview study. BMC Fam Pract. BioMed Central Ltd; 2012;13(1):1.
- 22. McPherson S, Armstrong D. General Practitioner Management of Depression. Qual Health Res. 2012;22(8):1150–9.
- 23. Thomas J, Harden A. Methods for the thematic synthesis of qualitative research in systematic reviews. BMC Med Res Methodol. 2008;8(1):45.
- 24. Barnett-Page E, Thomas J. Methods for the synthesis of qualitative research: a critical review. BMC Med Res Methodol. 2009 Jan;9:59.
- 25. QSR International Pty Ltd. NVivo qualitative data analysis software. Version 12. QSR International Pty Ltd; 2018.
- 26. Critical Appraisal Skills Program. Making sense of evidence about clinical effectiveness: 10 questions to help you make sense of qualitative research [Internet]. 2010. Available from: http://www.casp-uk.net/wp-content/uploads/2011/11/CASP_Qualitative_Appraisal_Checklist_14oct10.pdf
- 27. Campbell R, Pound P, Pope C, Britten N, Pill R, Morgan M, et al. Evaluating meta-ethnography: a synthesis of qualitative research on lay experiences of diabetes and diabetes care. Soc Sci Med. 2003 Feb;56(4):671–84.
- 28. Dixon-Woods M. The problem of appraising qualitative research. Qual Saf Heal Care. 2004;13(3):223–5.
- 29. Wittink MN, Givens JL, Knott KA, Coyne JC, Barg FK. Negotiating depression treatment with older adults: Primary care providers' perspectives. J Ment Heal. 2011;20(5):429–37.
- 30. Apesoa-Varano EC, Hinton L, Barker JC, Unützer J. Clinician Approaches and Strategies for Engaging Older Men in Depression Care. Am J Geriatr Psychiatry. 2010 Jul;18(7):586–95.

- 31. Bao Y, Eggman AA, Richardson JE, Sheeran TF, Bruce ML. Practices of depression care in home health care: Home health clinician perspectives. Psychiatr Serv. 2015;66(12):1365–8.
- 32. Bao Y, Eggman AA, Richardson JE, Bruce ML. Misalignment between Medicare Policies and Depression Care in Home Health Care: Home health provider perspectives. Psychiatr Serv. 2014;65(7):905–10.
- 33. Dickinson R, Knapp P, House AO, Dimri V, Zermansky A, Petty D, et al. Long-term prescribing of antidepressants in the older population: a qualitative study. Br J Gen Pract. 2010;60(573):e144-55.
- 34. Gordon IH. The perspectives of older people and GPs on depression in later life and its management: the stories they tell and ways they respond to each other. University of Sunderland; 2013.
- 35. Hassall S, Gill T. Providing care to the elderly with depression: The views of aged care staff. J Psychiatr Ment Health Nurs. 2008;15(1):17–23.
- 36. Liebel DV, Powers BA. Home health care nurse perceptions of geriatric depression and disability care management. Gerontologist. 2015 Jun;55(3):448–61.
- 37. Aakhus E, Oxman AD, Flottorp SA. Determinants of adherence to recommendations for depressed elderly patients in primary care: A multi-methods study. Scand J Prim Health Care. 2014;32(4):170–9.
- 38. Lin Y-R. The Impact of the Prospective Payment System on Psychiatric Home Health Care for Depressed Older Adults. University of Pennsylvania; 2005.
- 39. Lu LC, Hsieh PL. Frontline healthcare providers' views of depression and its prevention in older adults. J Clin Nurs. 2013;22(11–12):1663–71.
- 40. McCabe MP, Davison T, Mellor D, George K. Barriers to care for depressed older people: perceptions of aged care among medical professionals. Int J Aging Hum Dev. United States; 2009;68(1):53–64.
- 41. Pusey H. The Role of the District Nurse in the Detection and Management of Depression in Older People 2009. University of Manchester; 2009.
- 42. Stanners MN, Barton CA, Shakib S, Winefield HR. A qualitative investigation of the impact of multimorbidity on GP diagnosis and treatment of depression in Australia. Aging Ment Health. 2012;16(8):1058–64.
- 43. Strachan J, Yellowlees G, Quigley A. General practitioners' assessment of, and treatment decisions regarding, common mental disorder in older adults: thematic analysis of interview data. AGEING Soc. 2015 Jan;35(1):150–68.
- 44. Waterworth S, Arroll B, Raphael D, Parsons J, Gott M. A qualitative study of nurses' clinical experience in recognising low mood and depression in older patients with multiple long-term conditions. J Clin Nurs. 2015;24(17–18):2562–70.
- 45. Iden KR, Hjorleifsson S, Ruths S, K.R. I, S. H. Treatment decisions on antidepressants in nursing

- homes: A qualitative study. Scand J Prim Health Care. K.R. Iden, Research Unit for General Practice, Uni Health, Bergen, Norway.; 2011 Dec;29(4):252–6.
- 46. Patel V, Prince M. Ageing and mental health in a developing country: Who cares? Qualitative studies from Goa, India. Psychol Med. 2001 Jan;31(1):29–38.
- 47. Saarela T, Engestrom R. Reported differences in management strategies by primary care physicians and psychiatrists in older patients who are depressed. Int J Geriatr Psychiatry. 2003;18(2):161–8.
- 48. White J, Greer K, Russell G, Lalor A, Stolwyk R, Williams C, et al. "Factors affecting services offered to older adults with psychological morbidity: an exploration of health professional attitudes". Aging Ment Health. England; 2017;1–8.
- 49. Liebel D V, Powers BA, Hauenstein EJ. Home health care nurse interactions with homebound geriatric patients with depression and disability. Res Gerontol Nurs. 2015;8(3):130–9.
- 50. Tai-Seale M, McGuire T, Colenda C, Rosen D, Cook MA. Two-minute mental health care for elderly patients: Inside primary care visits. J Am Geriatr Soc. 2007 Dec;55(12):1903–11.
- 51. Sussman T, Yaffe M, McCusker J, Parry D, Sewitch M, Van Bussel L, et al. Improving the management of late-life depression in primary care: barriers and facilitators. Depress Res Treat. 2011;2011(Article ID 326307).
- 52. Todman JPF, Law J, MacDougall A. Attitudes of GPs towards Older Adults Psychology Services in the Scottish Highlands. Rural Remote Health. 2011;11(1):1496.
- 53. Timson S. Constructions of the older adult with depression: in light of the lower than expected referrals to psychological services. University of Wolverhampton; 2013.
- 54. Barley EA, Murray J, Walters P, Tylee A. Managing depression in primary care: A meta-synthesis of qualitative and quantitative research from the UK to identify barriers and facilitators. BMC Fam Pract. 2011;12(1):47.
- 55. Guhne U, Luppa M, Stein J, Wiese B, Weyerer S, Maier W, et al. [Barriers and Opportunities for Optimized Treatment of Late Life Depression]. Die vergessenen Patienten" Barrieren und Chancen einer optimierten Behandlung Depress Erkrankungen im Alter. Germany; 2016;43(7):387–94.
- 56. Cook JM, Marshall R, Masci C, Coyne JC. Physicians' perspectives on prescribing benzodiazepines for older adults: A qualitative study. J Gen Intern Med. 2007;22(3):303–7.
- 57. Farran C, Horton-Deutsch S, Loukissa D, Johnson L. Psychiatric home care of elderly persons with depression: unmet caregiver needs. Home Health Care Serv Q. 1998 Jan;16(4):57–73.
- 58. Hinton L, Sciolla AF, Unützer J, Elizarraras E, Kravitz RL, Apesoa-Varano EC. Family-centered depression treatment for older men in primary care: A qualitative study of stakeholder perspectives. BMC Fam Pract. 2017;18(1):1–9.
- 59. McCrae N, Murray J, Banerjee S, Huxley P, Bhugra D, Tylee a, et al. "They're all depressed, aren't they?" A qualitative study of social care workers and depression in older adults. Aging Ment

Health. 2005;9(November):508–16.

- 60. Mellor D, Davison T, McCabe M, George K. The management of depressed elderly care recipients: Family perspectives on the skills of professional carers. J Community Health Nurs. 2008;25(1):44–61.
- 61. Lee K, Volans PJ, Gregory N. Trainee clinical psychologists' views on recruitment to work with older people. AGEING Soc. 2003 Jan;23(1):83–97.
- 62. Corcoran J, Brown E, Davis M, Pineda M, Kadolph J, Bell H. Depression in older adults: a metasynthesis. J Gerontol Soc Work. 2013;56(6):509–34.
- 63. NICE. Depression in adults: recognition and management. Natl Inst Heal Care Excell. 2009;(October 2009):1–64.
- Overend K, Bosanquet K, Bailey D, Foster D, Gascoyne S, Lewis H, et al. Revealing hidden depression in older people: a qualitative study within a randomised controlled trial. BMC Fam Pract. 2015 Oct 19;16:1–8.

Table 1. Quality appraisal for included papers (n=27)

Quality appraisal question		Yes	No
Does the research involve qualitative	100% (27)		
data collection and analysis?			
Does the research have clear aims an	d objectives?	96% (26)	4% (1)
Were the data collected in a way tha	85% (23)	15% (4)	
the research aim?			
Was the data analysis sufficiently rigo address the aims of the research?	orous to	85% (23)	15% (4)
Can one be confident that all the relewere taken into account?	evant data	81% (22)	19% (5)
Were sufficient data presented to suit interpretations made?	74% (20)	26% (7)	
Did the paper demonstrate theoretic novel findings or perspective?	al insight	100% (27)	
What was the quality of the	Good	Acceptable	Poor
eporting methods?	67% (18)	26% (7)	7% (2)
Overall quality assessment	Very good	Good	Not very good
•	41% (11)	26% (7)	33% (9)

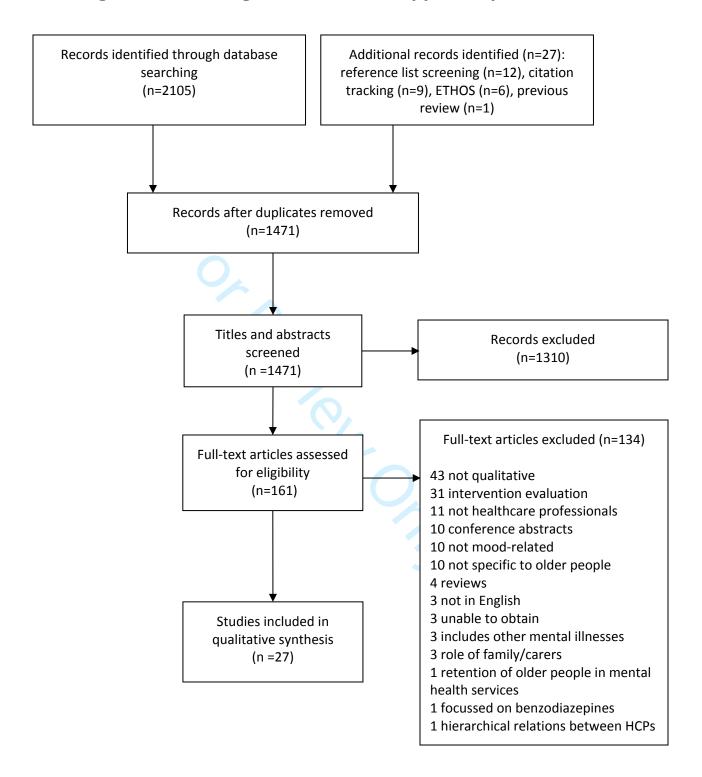
Table 2. Study characteristics

ID	Country	Professionals (n,)	Data collection	Quality
Aakhus 2014 (37)	Norway	GPs, nurses (primary and secondary health care), psychiatrists, researchers (n=26 total)	Interviews	*
Apesoa-Varano 2011 (30)	USA	Primary care physicians (n=9) and depression care managers (n=9 nurses, n=2 psychologists)	Interviews	***
Bao 2015 (32)	USA	Nurses (n=9), nurse supervisors (n=5), clinical or medical directors (n=6)	Interviews	**
Bao 2016 (31)	USA	Nurses (n=9), nurse supervisors (n=5), clinical or medical directors (n=6)	Interviews	*
Burroughs 2006 (20)	UK	GPs (n=9), practice nurses (n=3), district nurses (n=2), community nurses (n=3)	Interviews	***
Dickinson 2010 (33)	UK	GPs (n=10)	Interviews	**
Gordon 2013 (34)	UK	GPs (n=14)	interviews	***
Hassall 2008 (35)	Australia	Care staff (n=17), including Directors of Nursing, Clinical Nurse Consultants, Registered Nurses, Respite coordinators and Social Workers.	Interviews	**
Iden 2011 (45)	Norway	Full and part time nursing home doctors (n=16), registered nurses (n=8)	3 focus groups	**
Liebel 2013 (36)	USA	Home Health Care Nurses (n=16)	Individual interviews and 2 focus groups	***
Liebel 2015 (49)	USA	Home Health Care Nurses (n=4)	Observation of 25 home visits, with moderate participation	***
Lin 2005 (38)	USA	Psychiatric home care nurses (n=9), team director (n=1)	Interviews	*
Lu 2015 (39)	Taiwan	Public health nurses (n = 12), home care nurses (n = 5), long-term care nurses (n = 2), social workers (n=5) and dietitian (n=1)	Interviews	***
McCabe 2009 (40)	Australia	Professional care assistants (n=21) from different aged settings, registered nurses (n=2), trainee nurses (n=2), GPs (n=10), senior aged care managers (n=7)	Interviews	*
Murray 2006 (19)	UK	GPs (n=18), practice nurses (n=7), practice counsellors (n=5)	Interviews	***
Patel 2001 (46)	India	Primary health centre doctors (n=3), multi- purpose health workers (n=17)	3 focus groups, including a vignette on depression	*
Pusey 2009 (41)	UK	District nurses (n=11)	3 focus groups, 1 individual interview	***
Saarela 2003 (47)	Finland	Primary care physicians (n=25), psychiatrists (n=11)	7 focus groups and individual management plans, using two vignettes	*
Stanners 2012 (42)	Australia	GPs (n=8)	Interviews	***
Strachan 2015 (43)	UK	GPs (n=9)	3 group interviews	**
Sussman 2011 (51)	Canada	Family physicians (n=3), psychiatrists (n=2), nurse practitioners (n=3), social workers (n=3), decision-makers (n=1)	Small group discussions, with nominal group technique ranking of proposed solutions	**
Tai-Seale 2007 (50)	USA	Physicians (n=35)	Observations of 385 videotaped consultations between physicians and older people	*
Todman 2010 (52)	UK	GPs (n=119)	Mixed methods questionnaire survey	*

ID	Country	Professionals (n,)	Data collection	Quality
			including an open	
			qualitative question.	
Timson 2013 (53)	UK	Referring agents (GPs, n=4), referred-to	Multiple case study of	**
		psychologists (n=4), wider members of case	four depressed older	
		groups (n=13, including older adults, family	adults and professionals	
		member, community psychiatric nurse and	around them	
		sometimes a psychiatrist)		
Waterworth 2015	New	Primary health care nurses, district nurses, heart	Interviews	*
(44)	Zealand	failure nurses (n not reported)		
White 2017 (48)	Australia	Healthcare professionals from acute settings	11 focus groups	***
		(n=7), subacute (geriatric assessment and		
		rehabilitation, n=20) and community care (n=27),		
		including medical officers, physiotherapists,		
		occupational therapists, social workers,		
		neuropsychologists, registered nurses,		
		podiatrists, speech pathologists, music therapists		
Wittink 2011 (29)	USA	Internists (internal medicine physicians, with	Interviews	***
		focus on adult medicine, n=9), family doctors		
		(n=4), geriatric medicine physicians (n=2)		

Quality ***=very good, **good, *not very good

Figure 1 Flow Diagram search and appraisal process



Appendix 1 - Medline search terms

- 1. older adult.ti,ab.
- 2. older people.ti,ab.
- 3. elder*.ti,ab.
- 4. senior*.ti,ab.
- geriatri*.ti,ab.
- 6. old age.ti,ab.
- 7. late* life.ti,ab,kw.
- 8. Aged/
- 9. Geriatrics/
- 10. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9
- 11. primary care.ti,ab.
- 12. secondary care.ti,ab.
- 13. general practi*.ti,ab.
- 14. GP*.ti,ab.
- 15. family practi*.ti,ab.
- 16. Primary Health Care/
- 17. Secondary care/
- 18. nurs*.ti,ab.
- 19. psychiatr*.ti,ab.
- 20. psycholog*.ti,ab.
- 21. (clinician* OR therapist*).ti,ab,kw.
- 22. (professional* OR staff).ti,ab.
- 23. Geriatrician*.ti,ab.
- 24. 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23
- 25. interview*.ti.
- 26. Focus group*.ti,ab.
- 27. qualitative.ti,ab,kw.
- 28. attitude*.ti.
- 29. opinion*.ti.
- 30. perspective*.ti.
- 31. view*.ti.
- 32. perception*.ti.
- 33. qualitative research/
- 34. 25 or 26 or 27 or 28 or 29 or 30 or 31
- 35. manag*.ti,ab.
- 36. treat*.ti,ab.
- 37. diagnos*.ti,ab.

Page 24 of 33

- 38. refer*.ti.ab.
- 39. prescri*.ti,ab.
- 40. 33 or 34 or 35 or 36 or 37
- 41. DEPRESSION/
- 42. Depress*.ti,ab.
- 43. depressive disorder/
- 44. mood adj1 (low OR disorder).ti,ab
- 45. 39 or 40 or 41 or 42
- 46. 10 and 24 and 32 and 38 and 43



Appendix 2: Coding structure

- Models of depression
 - o Commonality of late life depression
 - Depression as biomedical
 - o Depression as individual
 - o Depression as response to life (social, economic issues etc)
 - o Depression with reduced functioning
 - Recognising and diagnosing
 - Questionnaires
 - Therapeutic relationship and knowledge
 - Severity of depression, risk and consequences
- Patient factors affecting management
 - Age-specific management factors
 - Ethnicity and cultural factors
 - o Gender
 - Individual factors
 - Negotiating the diagnosis
 - Patient views of causes
 - Presentation
 - o Stigma
 - Treatment motivation and preferences
- Mental and physical health
 - Complexity
 - Maintenance
 - Prioritisation
 - Severity of depression, risk and consequences
 - o Treatment as part of other LTC treatment
- Treatments
 - Antidepressants
 - Avoidance
 - Caregiver support
 - o Family involvement
 - o Multiple treatments
 - Other
 - Social and community interventions
 - Voluntary services for social activities
 - Social work referrals
 - Talking therapies
- Settings and setting-specific management
 - Acute setting
 - o AHP informal
 - o Confidence
 - Continuity

- **CPNs**
- Informal GPs
- Informal medical officers
- Informal multipurpose health workers
- Informal nurses
- Local mental health service
- Nursing home management
- Opportunity to screen
- Referring on
- Responsibility and fit with wider role
- Service communication
- Time
- Training, experience and confidence
- Service availability
 - Doing something
 - Follow up
 - Last resort
 - Service availability
- e availability
 Informal networks Informal networks

Appendix 3: Study details

ID	Aims	Professionals (n, sampling type)	Data collection and analysis	Main themes (subthemes)
Aakhus 2014	Identify determinants of practice for the six prioritised	GPs, nurses (primary and secondary health care), psychiatrists, researchers (n=26 total)	Unstructured and structured group interviews, individual	Analysis structured by recommendations: Recommendation 1. Social contact Recommendation 2. Collaborative care plan
Norway	recommendations for the management of depressed elderly patients (using the TICD checklist to help identify and categorise)	HCPs available from public list and recommendations, with urban and rural groups. [also n=4 patients]	interviews (randomised to each). Asked for feedback on recommendations. [also included a survey]	Recommendation 2: Collaborative care plan Recommendation 3: Depression care manager Recommendation 4: Counselling. Recommendation 5: Antidepressants in mild depressi Recommendation 6: Severe depression, recurrent and
			Framework analysis	chronic depression, dysthymia General determinants
Apesoa- Varano 2011	To move beyond an account of barriers to focus specifically on identifying approaches that PCPs	Primary care physicians (n=9), all depression care managers from the IMPACT study (9 nurses, 2 psychologists) (n=11)	Individual semi-structured interviews	Clinicians' Approaches to Engaging Older Men (<i>Gradu Approach: Building Up to Depression, Direct Approach Shock and Awe</i>)
USA	and depression care managers (DCMs) treating depressed older adults use to engage older men in depression care	Convenience sampling of providers involved in the IMPACT study.	Thematic analysis	Strategies for Managing Depression (<i>Treat Somatic Symptoms, Medicalize Depression, Enlist the Family</i>)
Bao 2015 & 2016	To assess gaps between published best practice and real-world practices of treating depression	Nurses (n=9), nurse supervisors (n=5), clinical or medical directors (n=6)	Semi-structured interviews (n=20)	Bao 2015 Screening Assessment
USA	home health care and barriers to closing any gaps (Bao 2015) To capture home health administrators' and nurses' views on how well current Medicare policies are aligned with depression care quality improvement in home health care (Bao 2016)	Sample of key informants from 5 home health agencies who had participated in CAREPATH trial. Sampled according to nurses and nurse supervisors working in CAREPATH team, nurses working in a usual care team and directors involved in CAREPATH participation. Those who were likely to speak authoritatively on the topic were identified by an organisational liaison.	Thematic analysis using grounded theory. Coded by two investigators independently, with one further investigator coding a sample and negotiating consensus.	Case coordination Antidepressant management Patient education and goal setting Bao 2016: Home health eligibility requirements are at odds with depression care Incentives of home health prospective payment syste
				are misaligned with depression care Current design of OASIS provides limited support for depression care
Burroughs 2006	Explores the ways that primary care professionals frame their ideas about depression in their elderly	GPs (n=9), practice nurses (n=3), district nurses (n=2), Community nurses (n=3)	Semi-structured interviews (n=15)	Aetiology of depression Making the diagnosis Management of late life depression in primary care
UK	patients Current management strategies used and barriers to the effective management of late life depression from both health professional and patient perspective	Purposive sampling within one Primary Care Trust of a variety of practices and nursing teams, and those who did or did not refer patients for a depression trial. [also n=20 patients]	Constant comparison by two authors	Primary care relationships
Dickinson 2010	Explores the beliefs and behaviours of patients and GPs who have	GPs (n=10)	Semi-structured interviews (n=10)	The benefits of antidepressants Ambiguities and dissonances in the understanding of

ID	Aims	Professionals (n, sampling type)	Data collection and analysis	Main themes (subthemes)
	experience of long-term (≥2 years)	Older patients recruited from GP practices in one		depression and its treatment
	antidepressant prescription	primary care trust and were doctors whose	Framework analysis involving	Barriers to the discontinuation of antidepressants
		patients participated in the study.	three authors.	
		[also n=36 older people]		
Gordon 2013	To explore how older people's and	GPs (n=14)	Semi-structured interviews	Skills in managing older people with depression
	GPs' different positions and		(n=14)	Recognising depression
UK	situations influence the ways they	Theoretical sample of GPs interested in mental		Starting a dialogue about depression
	perceive depression, particularly	health, from a range of practice sizes,	Situational analysis, with	Changing ways of thinking
	influences reported by older	urban/rural, deprived/affluent and GP age and	project maps and thick analysis	Developing the doctor-patient relationship
	people over ways they talk about	gender (recruited in three stages)	to compare GP and older adult	Sharing experiences
	depression and influences reported	[also older adults]	views, with input from	Referring older patients to mental health services
	by GPs over ways they respond		supervisory team discussions.	Managing older adults with depression
				Challenges
				Balancing personal and professional "selves"
				Seeking advice from colleagues
				Typology of GPs
				Analyst
				Active Listener
				Problem solver
		//		Moving between different styles of working
Hassall 2008	To seek the views and perspectives	Care staff (n=17), including Directors of Nursing,	Semi-structured interviews	The extent to which depression is an issue for clients a
.	of staff in relation to depression in	Clinical Nurse Consultants, Registered Nurses,	(n=17)	residents
Australia	the clients and residents they	Respite coordinators and Social Workers.		Staff understanding of depression and the ability to
	provide care to		Content analysis with two	recognize when a client or resident is depressed
		Convenience sampling from all community	independent coders analysing	Discussing depression with general practitioners (GPs)
		nursing services, residential aged care services	and discussing themes.	and other healthcare professionals
		and respite services in regions		Processes and procedures for treating and addressing
				depression
	<u> </u>	- :: : : : : : : : : : : : : : : : : :	- 16	Education and training on depression for staff.
Iden 2011	To examine decision-making	Full time nursing home doctors (n=8), registered	Semi-structured focus groups	Depressed or just tired of life?
, , l	among doctors and nurses in	nurses (n=8) and part-time nursing home doctors	(n=3) of 8 participants each	To treat or not to treat with antidepressants?
Norway	nursing homes on the treatment of	(n=8)	<u> </u>	Who determines the treatment?
	patients with depression using		Systematic text condensation	
	antidepressants	Purposeful sample according to age, gender,	by three authors to produce	
		profession, clinical experience and position	themes	
Liebel 2013	Describe Home Health Care nurses'	Home Health Care Nurses (n=16)	Individual interviews (n=16)	Balancing system and patient care (<i>Time constraints a.</i>
	perceptions of depression and	5 C. L. St. L. and consulting	and 2 focus groups (same 16)	financially driven priorities, New depression screening
USA	disability care management	Purposeful, criterion-based sampling.	plus observation of interactions	tool, Access to specialised mental health care/provider
			between nurses and five	Knowing how to manage depression (Nature of
				denrection Calt contidence Duilding knowledge)
` I			consenting patients (25 visits) at home [observation more	depression, Self-confidence, Building knowledge) Encouraging disability maintenance/improvement

Appendix 3: Study details

ID	Aims	Professionals (n, sampling type)	Data collection and analysis	Main themes (subthemes)
			fully reported in sister paper] Content analysis using matrices. Used triangulation, rich data, peer debriefing, prolonged engagement, audit trail.	(Nature of disability, Self-confidence, Building knowledge) Meeting patients where they are (Engaging with patients in their homes, Establishing a therapeutic relationship, Integrating depression care and overall health care management) Therapeutic nurse-patient relationships (a view from t field)
Liebel 2015	Observationally identify nurses' use of care management and	Home Health Care Nurses (n=4) delivering care to five geriatric patients experiencing current	Observation of 25 home visits, with moderate participation	Establishing connections between patient and nurse (Connecting and reconnecting with each visit, Using the
USA	therapeutic strategies to evaluate and address depression in home visits to patients with chronic illness and disabilities Assess home health nurses' skillsets that, when supported and used, may have valuable potential to improve patient depression and disability outcomes	depression Convenience sample of four volunteers	(primarily observation but with socially appropriate involvement in conversation) using a structured guide. Content analysis guided by Peplau's perspectives on therapeutic nurse interactions, using triangulation with interview data (Liebel 2013), peer debriefing, prolonged engagement, rich data and audit trail.	HHC visit to establish connections with patients) Communications promoting productive interactions: therapeutic interactions Communications disconnecting nurse and patient Missed opportunities for making connections
Lin 2005	To describe the content of	Psychiatric home care nurses (n=9), team	Semi-structured interviews	Assessment
	psychiatric services provided to	director (n=1)	(n=10)	Management/supervision
USA	depressed older adults at their homes	Purposeful sampling (details not reported) from one home care agency	Content analysis using a list of 24 foci based on established criteria, with input from supervisory committee	Communication Interventions Regulation
Lu 2015	Explore the views of healthcare providers on depression	Public health nurses (n = 12), home care nurses (n = 5), long-term care nurses (n = 2), social	Interviews (n=25)	Lack of children's support Maladaptation to distressing circumstances in later life
Taiwan	and its prevention in older adults	workers (n=5) and dietitian (n=1) Purposive sampling according to variety of healthcare teams and practice locations	Thematic analysis with independent coding by two researchers, with discussion. Participants were phoned to discuss and refine initial interpretations.	Innate vulnerability in the individuals Being unaware of or reluctant to accept an illness
McCabe 2009	Document more systematically the	Professional care assistants (n=21) from different	Individual semi-structured	Workplace factors (Communication in aged care setting
Australia	factors that contribute to failure to detect depression among elderly	aged settings, registered nurses (n=2), trainee nurses (n=2), GPs (n=10), senior aged care	interviews	Staff resources, Staff roles) Factors related to older care recipients
Australia	detect depression among elderly	indises (11-2), drs (11-10), selliol aged cale		ractors related to older care recipients

ID	Aims	Professionals (n, sampling type)	Data collection and analysis	Main themes (subthemes)
	care recipients, and the failure of those with depression to be referred for appropriate treatment.	managers (n=7) Staff from four residential and community care settings plus GPs from a medical advisory panel and regional general practice division members	Analysis type not reported	Factors related to professional carers (<i>Training issues, Staff attitudes</i>)
Murray 2006 UK	Explore primary care professionals' perceptions of depression in older people.	GPs (n=18) Practice nurses (n=7), practice counsellors (n=5) Purposive sample to include professionals in different settings in varying SES areas with different ethnicities.	Interviews (n=30) Grounded theory (2 researchers, independent coding)	Presenting complaints Distinguishing between depression and physical illnes Depression as normal in old age Avoidance of psychosocial problems Stigma and shame Gender differences Ethnic and cultural differences The family as help or hindrance
Patel 2001 India	Investigate the understanding and opinions of Goan people regarding health experiences of older people, particularly dementia and depression	Primary health centre doctors (n=3), multi- purpose health workers (n=17) [other focus groups also held with older people (N=5, n=37), village councillors (N=1, n=5) and caregivers (N=4, n=26)] Purposive sampling from a range of settings around Goa	Focus groups (n=3), including a vignette on depression Thematic analysis using constant comparison. Two authors analysed the data independently and compared their results.	The health status of older persons (Health conditions, Mental health conditions (Depression, dementia)) General issues related to ageing in Goa (The status of older persons in Goan society, Dependency, Economic factors in family care and support, Admission to old aghomes, Roles and activities, Community resources)
Pusey 2009 UK	To explore district nurses' views of current practice in the detection and management of depression in older people	District nurses (n=11) Convenience sample of district nurses from teams participating in a survey	Focus groups (n=3), individual interview (n=1) Thematic content analysis	Social isolation Time The Role of the District Nurse Availability of support Knowledge and skill of district nurse
Saarela 2003 Finland	To improve the management of geriatric depression Explore the reasoning underlying treatment strategies and clinical decision-making Identify training needs of primary care physicians and psychiatrists	Primary care physicians (n=25), psychiatrists (n=11) Group sessions at a geriatric psychiatry training event, with primary care physicians from five health centres and psychiatrists from two community health centres	Focus group discussions (n=7) and individual management plans, using two vignettes Content analysis of plans by two researchers, grounded theory	1. Both professional groups seemed to highlight soma assessment and the need to address coexisting physic problems. A difference was found in the specificity an number of presented psychosocial and psychopharmacological treatment ideas between the primary care and psychiatry groups. 2. Assessment of the stage of old age depression diffe between primary care physicians and psychiatrists. 3. The primary care physicians tended to rely on their previous experience of similar cases and to emphasize the establishment of a good counselling relationship, while the psychiatrists were more active in asking about the patient's personal situation when forming the management plan.

Appendix 3: Study details

ID	Aims	Professionals (n, sampling type)	Data collection and analysis	Main themes (subthemes)
Stanners 2012	To develop a grounded theory model around the impact that multimorbidity has on GP practice	GPs (n=8) Convenience sample who had referred >=5	Semi-structured interviews (n=8)	Detection/diagnosis Treatment (guideline prescribing, social prescribing)
Australia		patients to one multidisciplinary outpatient clinic	Thematic analysis using grounded theory (constructivist epistemology, interpretivist theoretical perspective), with an experienced researcher coding two interviews independently	
Strachan	Exploration of GPs' assessment and	GPs (n=9)	Group interviews (n=3)	Cohort effects
2015	treatment of common mental			GP role
UK	disorders in older people Their expectations and experience	Convenience sample of GPs in one geographical	Thematic analysis with member checking (no response)	Assessment Decision making
UK	of referral to the mental health for	area.	checking (no response)	Intervention
	older adults' team	· /O		Role of secondary care
		101.		More than a health issue (Social problems, Social solutions)
Sussman	To elicit Canadian health	Family physicians (n=3), psychiatrists (n=2),	Conference including small	Comorbidity
2011	professionals' views on the barriers	nurse practitioners (n=3), social workers (n=3),	group discussions, with	Silo mentality
	to identifying and treating late- life	decision-makers (n=1)	nominal group technique	Developing collaboration through case-specific suppo
Canada	depression in primary care settings and on the solutions felt to be most	Snowball sample of practitioners from 2 Candian	ranking of proposed solutions afterwards	Case-specific support offered "just in time"
	important and feasible to	provinces with an interested in late life	alterwards	
	implement	depression from a variety of health disciplines	Thematic analysis of small	
			group discussion (two coders	
			working independently and	
			discussing)	
Tai-Seale	To assess, using quantitative and	Physicians (n=35)	Videotaped consultations	Took the Time to Investigate the Disease, the Person,
2007	qualitative methods and in		(n=385) between physicians	and the Lived Life
LICA	naturalistic settings between	Convenience sample of office-based physicians	(n=35) and older people (aged	Allocated Time to Gathering Information, Recognized
USA	elderly patients and physicians, the time spent on mental health, and		65+) visiting for any reason. Videotapes purposively	Mental Disorder, Gave Inadequate Treatment Patient Indicated Emotional Distress, but Physician Die
	second, how that time is used		analysed on the basis of time	Not Follow Up
	second, now that time is used		spent on mental health	Not relief up
			discussion until saturation	
			(n=53 consultations).	
			Coded topics, how the	
			discussion began and verbal	
			and non-verbal behaviour	

ID	Aims	Professionals (n, sampling type)	Data collection and analysis	Main themes (subthemes)
			around raising and discussing the topic and action taken. Discussed between two authors.	
Todman 2010 Scotland	To elicit GP suggestions in regards to improvements to psychological services for older people in the area	GPs (n=119) Practice managers were sent a letter explaining the project and a pack of questionnaires to distribute to GPs.	Mixed methods questionnaire survey including an open qualitative question regarding further improvements that could be made	Long waiting times Local input A specialist older adult service Increased Community Psychiatric Nurse availability
			Thematic content analysis by one author.	
Timson 2013 UK	To investigate the under-referral of older adults for psychological intervention, by potential referral agents, via the constructions they held about older adults	Referring agents (GPs, n=4), referred-to psychologists (n=4), wider members of case groups (n=13, inc older adults, family member, community psychiatric nurse and sometimes a psychiatrist)	Multiple case study of four depressed older adults aged 75+ (with professionals around them), using semi-structured interviews Pattern matching and explanation-building, triangulating multiple perspectives, and including discussions about constructions with a psychologist	Constructions of the older adult as having negative identity Construed as ill-fitting socially Construed as being irresponsible Construed as meriting limited care Construed as childlike (infantilised) Construed as stigmatised Construed as having bleak future expectations [the older adults hold negative constructions of themselves] Construed as an object of care Construed as seen in the 'third person' Construed as being misunderstood Construed as having unmet needs Construed as having needs prescribed by others Miscellaneous additional constructions Constructions of referrals to psychological services Psychological constructions held of the older adult
Waterworth 2015	How nurses working with older people with multiple LTCs	Primary health care nurses, district nurses, heart failure nurses (n not reported)	Telephone interviews (n=40)	Being alert Knowing the patient over a period of time
New Zealand	recognise and assess older patients for depression The strategies they use to support the patient	Approached key individuals in national networks and nurses with a postgraduate qualification in long term condition management as key informants from primary, district and heart failure nursing	Constructivist grounded theory approach	Asking questions Offering options Providing time to listen
White 2017	To explore clinician attitudes of	Healthcare professionals from acute settings	Focus groups (n=11)	1. Clinician decision-making towards psychological

ent management and factors ciated with decision making referral to services for older ts with psychological morbidity and post hospitalisation. Explore the ways in which hary care providers describe the esses related to depression ragement for older adults	(n=7), subacute (geriatric assessment and rehabilitation, n=20) and community care (n=27), including medical officers, physiotherapists, occupational therapists, social workers, neuropsychologists, registered nurses, podiatrists, speech pathologists, music therapists Convenience sample of interested clinicians employed by one service provider Internists (internal medicine physicians, with focus on adult medicine, n=9), family doctors (n=4), geriatric medicine physicians (n=2)	Inductive analysis with constant comparison Two researchers conducted analysis independently and resolved disagreements through discussion Semi-structured telephone interviews (n=15)	psychological morbidity (workload) 3. Confidence and capability 4. facilitating continuity of care 5. Perception of depression and ageing
referral to services for older ts with psychological morbidity and post hospitalisation. Explore the ways in which hary care providers describe the sesses related to depression	including medical officers, physiotherapists, occupational therapists, social workers, neuropsychologists, registered nurses, podiatrists, speech pathologists, music therapists Convenience sample of interested clinicians employed by one service provider Internists (internal medicine physicians, with focus on adult medicine, n=9), family doctors	comparison Two researchers conducted analysis independently and resolved disagreements through discussion Semi-structured telephone	priorities) 2. Supply of people with specialised skills dealing with psychological morbidity (workload) 3. Confidence and capability 4. facilitating continuity of care 5. Perception of depression and ageing Convincing patients that depression is a medical illnes
ts with psychological morbidity and post hospitalisation. Explore the ways in which hary care providers describe the esses related to depression	occupational therapists, social workers, neuropsychologists, registered nurses, podiatrists, speech pathologists, music therapists Convenience sample of interested clinicians employed by one service provider Internists (internal medicine physicians, with focus on adult medicine, n=9), family doctors	Two researchers conducted analysis independently and resolved disagreements through discussion Semi-structured telephone	 2. Supply of people with specialised skills dealing with psychological morbidity (workload) 3. Confidence and capability 4. facilitating continuity of care 5. Perception of depression and ageing Convincing patients that depression is a medical illnes
xplore the ways in which larry care providers describe the lesses related to depression	neuropsychologists, registered nurses, podiatrists, speech pathologists, music therapists Convenience sample of interested clinicians employed by one service provider Internists (internal medicine physicians, with focus on adult medicine, n=9), family doctors	analysis independently and resolved disagreements through discussion Semi-structured telephone	3. Confidence and capability 4. facilitating continuity of care 5. Perception of depression and ageing Convincing patients that depression is a medical illnes.
xplore the ways in which hary care providers describe the besses related to depression	podiatrists, speech pathologists, music therapists Convenience sample of interested clinicians employed by one service provider Internists (internal medicine physicians, with focus on adult medicine, n=9), family doctors	analysis independently and resolved disagreements through discussion Semi-structured telephone	3. Confidence and capability 4. facilitating continuity of care 5. Perception of depression and ageing Convincing patients that depression is a medical illnes.
nary care providers describe the esses related to depression	Convenience sample of interested clinicians employed by one service provider Internists (internal medicine physicians, with focus on adult medicine, n=9), family doctors	resolved disagreements through discussion Semi-structured telephone	4. facilitating continuity of care 5. Perception of depression and ageing Convincing patients that depression is a medical illnes.
nary care providers describe the esses related to depression	employed by one service provider Internists (internal medicine physicians, with focus on adult medicine, n=9), family doctors	through discussion Semi-structured telephone	Perception of depression and ageing Convincing patients that depression is a medical illnes.
nary care providers describe the esses related to depression	employed by one service provider Internists (internal medicine physicians, with focus on adult medicine, n=9), family doctors	Semi-structured telephone	Convincing patients that depression is a medical illnes
nary care providers describe the esses related to depression	Internists (internal medicine physicians, with focus on adult medicine, n=9), family doctors	·	,
nary care providers describe the esses related to depression	focus on adult medicine, n=9), family doctors	·	,
esses related to depression		interviews (n=15)	Treating depression in the context of ageing
The state of the s	(n=4), geriatric medicine physicians (n=2)		
agement for older adults			
		Thematic analysis with	
	Convenience sample of primary care providers	constant comparison (codes	
	involved in one of two trials of late-life	and data reviewed by	
	depression care (relatively more experience of	interdisciplinary team), results	
	caring for older adults with depression)	reviewed by primary care	
		providers.	
		caring for older adults with depression)	caring for older adults with depression) reviewed by primary care