

Rapid Review of Mental Health in Primary Care

What aspects of primary care are effective in the prevention, recognition and management of mental health issues across the lifespan; for whom do they work, in what circumstances and why?

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Ministerial Foreword

I am pleased to commend to you this Research Review that is one of a series focussing on priorities identified through the Action Plan that supports the Executive's response to the Bamford Review Recommendations. The Bamford Action Plan (2009-2011) is driving much-needed change in how we care for people affected by mental health or intellectual disabilities. One in six of our population has a mental health need at any one time, and it is estimated that between 1-2% of our population, that is around 24, 000 people, have an intellectual disability. In addition, there are many others who have or will develop dementia in the future.

Our highly committed staff who deliver health and social care services have expertise and skills that must be supported by the best up-to-date knowledge. Through research, new knowledge is created. But it is now recognised that, for a variety of reasons, essential knowledge does not always reach the people who most need to use it. The knowledge can vary from better understanding of the causes of poor mental health or intellectual disabilities through to evidence on which services bring about the greatest improvements to the lives of people or their carers. To bring together this knowledge we have commissioned five Research Reviews.

Each Review was written by a team of experts in academia, clinical services and care who have collected the most up-to-date evidence from research done locally or globally. All of the review teams were based in Northern Ireland so we know that the Reviews are relevant to our local situation. The quality of each Review has also been assured through input from experts who are based in other parts of the UK or internationally.

The priority areas addressed by the Reviews are:

- Children & Young People including early interventions, the needs of looked-after children and the development of resilience;
- Patient Outcomes including the measurement of recovery and the capture of patient feedback;
- Intellectual Disability including the management of challenging behaviours;
- Psychological Therapies including how to embed these in services for children and adults across the lifespan and including those with intellectual disability and severe mental health problems;
- Primary Care including aspects important to the prevention, recognition and management of mental health in the community.

As well as providing accessible knowledge and information, each Review has highlighted gaps in our knowledge. We will commission new research projects aiming to fill those gaps.

My final acknowledgement is of contributions made by local people, patients and their carers who assisted in the selection of the priority areas covered by the Reviews and provided extremely helpful feedback to the review teams. Some of those people also serve through their membership of our Bamford Monitoring Group.

I dedicate these Reviews to the people who are affected by mental health or intellectual disabilities. I urge our health and social care staff, education professionals, members of voluntary organisations and others to use these Reviews so that all members of our community may receive the best possible support to live their lives with dignity.

Edwin Poots MLA

Minister for Health, Social Services and Public Safety

Executive Summary

Introduction

The prioritisation of primary care in the Bamford Implementation Plan recognises the centrality of primary care to mental health service provision. Primary care has a crucial role to play in ensuring continuity of care for individuals with mental health disorders. Given its position as the first point of contact for individuals with mental health disorders and the gatekeeper to additional and more specialised mental health services and treatments, it is imperative that primary care functions effectively in the recognition and management of mental health disorders as well as engaging in preventative interventions. The current review undertook a focused search of the literature pertaining to primary care and mental health with the aim of addressing the overall research question: What aspects of primary care are effective in the prevention, recognition and management of mental health issues across the lifespan; for whom do they work, in what circumstances and why?

The full report is presented in six sections which focus on: (A) contextual evidence relating to the current challenge presented by mental health in Northern Ireland; (B) the overall methodological approach to the review; (C) key principles of an ideal service model and sub-questions to be addressed; (D) synthesis of review level evidence; (E) comparison of review level evidence with sub-questions and key principles of an ideal model; and (F) concluding comments.

Key Findings and Recommendations

As outlined in the report, the research team evaluated literature which indicated guidelines and standards of best practice for the effective provision of mental health services in primary care. This process informed the development of key principles of an ideal service model and research sub-questions. In order to address the overall research question and these sub-questions, review level evidence was compared with the identified *ideal* model. The key findings and recommendation are presented below.

Depression and Anxiety

Depression, anxiety disorders and mixed anxiety and depression are very common conditions, and consequently take up a considerable proportion of the working time of primary care practitioners. There is good evidence for the efficacy and effectiveness of a number of interventions for these conditions at the primary care level, though individuals who present with more severe symptoms or who fail to respond to treatment ought to be referred on to secondary care services.

Interventions with an established evidence base which can be implemented at a primary care level include:

- Guided self-help for individuals with mild depression or sub-threshold depression.
- CCBT (especially *Beating the Blues*) and CBT to reduce symptoms of depression
- Structured group physical activity programmes.

Mental Health and the Northern Ireland conflict

- Increased GP awareness of prevalent mental health issues associated with the Troubles is required.

Stigma

- There is a need for the development of strategies which reduce stigma associated with mental disorders with the aim of increasing treatment seeking behaviours.

Screening

- The use of MH screening devices should be more widely considered, especially at the commencement of a treatment intervention for a mental health condition in order to establish a baseline for the condition, for the purpose of monitoring and to establish the effectiveness of the intervention.
- Within primary care settings, the use of depression screening questionnaires requires a substantial organisational system to support management and for the purpose of follow-up.

Suicide and self-harm

- Both historic and recent history should be considered in the assessment of all patients to identify suicidal risk and determine appropriate intervention.
- GPs must give consideration to the link between suicidal behaviour and other mental health issues when considering referral to the appropriate agency.
- Specifically, increased training in suicide awareness would help GPs decipher those symptoms that could mask suicide ideation in the individual.
- Booster training would ensure that GPs are kept aware of trends in suicidality which may direct treatment of the individual within a primary care setting and beyond.
- GPs should be notified of trend changes within a given geographic area, to augment screening for suicidal ideation.
- Support should be provided to primary practitioners to ensure that preconceptions of suicidal behaviour are appropriately addressed, to optimize both patient care and good practice.
- A multi-component approach to suicide prevention should be considered in all primary presentations involving the treatment of suicide ideation or behaviour.
- Targeted prevention strategies should address characteristics such as age, physical health and social disadvantage unique to different groups in society.
- Screening for suicide ideation should be carried out by trained primary care professionals using validated instruments such as the Suicide Probability Scale.
- GPs should be regularly updated on the outcomes of research on the effectiveness of primary treatment for patients at risk of suicide.

GAD

- There is a need for an evaluation of the effectiveness of the role of the GP in delivering treatments to reduce the symptoms of GAD.
- The effectiveness of guided self-help groups for anxiety disorders should be further evaluated for their effectiveness as an intervention in primary care.
- Cost-effectiveness evaluation of low and high intensity psychological interventions for people with GAD or mixed anxiety disorders should be conducted.
- More research is needed into the available skills in primary care teams, and appropriate tools for use to improve detection and treatment of GAD within primary care settings.
- Research studies that compare and contrast the effectiveness of different models of care for GAD is recommended and should include consideration of the co-morbidity with physical and mental health problems.
- More research is needed into the relevant impact of low intensity psychosocial therapies on GAD and mixed anxiety disorders, particularly focusing on primary care settings; and in particular to explore the further potential of CCBT.

Alcohol dependency and mental health

- A comprehensive primary care assessment should be provided for individuals at risk of alcohol abuse or dependence disorders. This should include the use of a tool to measure alcohol dependence (such as the AUDIT, SADQ or the Leeds Dependence Questionnaire). In addition, the person's historical and recent history of alcohol use should be examined along with the physical and mental health problems associated with alcohol use. Finally, the social and economic implications of alcohol abuse and dependence should be explored.
- Primary care practitioners should provide information on sensible drinking and interventions to reduce alcohol-related harm to individuals at risk of developing alcohol abuse disorders.
- People who meet the criteria for alcohol abuse disorder or alcohol dependence disorder should be referred to specialists for care planned treatment.
- Individuals with alcohol abuse and dependence disorders should be assessed for comorbid mental disorders, prior to, and throughout treatment. Individuals with comorbid mental disorders that do not improve following 3-4 weeks abstinence from alcohol should receive treatment or referral for that mental disorder.
- Risk management plans should be in place for people who abuse, or are dependent upon alcohol, and are suicidal. These individuals should be referred to a psychiatrist for assessment and treatment.

Prevention

- Further research should be undertaken into the effectiveness of primary care led preventive work with high risk children and young people (e.g. children with chronic illness).

- There should be an increase in encouraging resilience among primary school children as a means of reducing the risk of suicide. This work should be evaluated longitudinally.
- A trial should be established comparing health outcomes of children and adolescents screened for Major Depressive Disorder (MDD) with a non-screened population.
- Targeted screening and preventive interventions should be undertaken with looked after and accommodated young people, young people in juvenile detention facilities, and children of depressed parents. A study evaluating the effectiveness of psychotherapeutic interventions in the primary care setting on young people with a mental health problem, including the cost effectiveness of such interventions should be undertaken.
- Healthcare professionals in primary care should be trained to detect symptoms of depression, and to assess children and young people who may be at risk of depression.
- Children and young people with moderate to severe depression should be offered, as a first-line treatment, a specific psychological therapy such as individual cognitive behavioural therapy [CBT], interpersonal therapy or shorter-term family therapy; it is suggested that this should be of at least 3 months' duration.

Older people

- Routine health checks for older people should incorporate screening for depression.
- In view of the evidence supporting the benefits of PST and CBT in reducing depressive symptoms among older people, these services should be more widely available.
- More work is needed to standardise approaches to the measurement of mental health outcomes.

Dementia

- Consideration should be given to the wider use of non-pharmacological interventions (music therapy, hand massage and physical activity/exercise) for managing the symptoms of dementia within primary care.
- Routine health checks for older people should incorporate screening for dementia.
- Primary care clinicians should select a screening tool (e.g. MMSE) and familiarise themselves with it to become more efficient in screening for dementia.
- Primary health care staff should consider referring people who show signs of mild cognitive impairment for assessment by memory assessment services to aid early identification of dementia.

- In middle age and among older people, vascular and other modifiable risk factors for dementia should be reviewed, and if appropriate, treated.
- In view of the benefits of group support for families and carers, this service should be more widely available.
- More evidence is needed on the recognition and management of mental health disorders in older people.
- There is a need for the increased use of carer/family group support in the management of dementia.

Schizophrenia and other psychotic illnesses

- There is a distinct need for evidence on early identification processes for psychosis and schizophrenia.

Primary care practitioners have a key role to play in improving the care of individuals with schizophrenia and other psychotic illnesses. Whilst there is good evidence for the efficacy and effectiveness of early intervention programmes, such programmes are not widely available. There is no evidence as to which measures would improve the detection of prodromal symptoms and early phase psychotic illness in primary care.

The management of established schizophrenia in primary care does have an established evidence base. Primary care practitioners ought to:

- Routinely monitor for other coexisting mental health problems, for example depression, particularly in the early phases of treatment.
- Monitor the physical health of people with schizophrenia at least once a year.
- Offer cognitive behavioural therapy (CBT) to all people with schizophrenia.

Primary care practitioners can play a key role in ensuring the needs of carers are met, in part through interventions at the primary care level, and in part through onward referral to specialist services. Primary care practitioners ought to:

- Offer a carer's assessment and family intervention to all families of people with schizophrenia, including written and verbal information on schizophrenia and its management.
- Provide information about local carer and family support groups and voluntary organisations.
- Assess the needs of any children in the family, including young carers.

Miscellaneous

- Given the available effectiveness evidence, there is support for the development of 'case management' and 'collaborative care' models for the management of mental health disorders in primary care.
- There is support for the development of individualised prevention strategies for PND.
- GPs and 'high risk' groups should be furnished with information detailing the risk factors associated with mental health disorders.
- Given the clear associations between mental illness and poor physical health, it is imperative that primary care professionals recognize physical healthcare needs in their approach to the management of treatment for individuals with mental health problems.

SECTION A

Contextual information on the prevalence of mental health disorders among the Northern Ireland population

Introduction

The prevalence of mental health problems and the need for a strategic national framework for the development and improvement of mental health services in Northern Ireland was notably acknowledged and endorsed in the recent Bamford Review of Mental Health and Learning Disability. Following an assessment of current mental health needs, the review states that a new strategic framework requires better information on mental health and service needs and that a holistic and comprehensive approach to service provision and mental health practice is necessary (Bamford, 2005). Given the position of primary care as the first point of contact for individuals with mental health needs, and the GPs' role in identifying potential disorders and ensuring continuity of care, it is essential that practitioners and planners are furnished with a reliable evidence base which details the levels and profile of mental needs in the community. Furthermore any evaluation of effectiveness of primary care services in the prevention, recognition and management of mental health disorders must consider the levels of need, risk factors and profile of service use among the population as well as important contextual factors which impact upon and interact with these phenomena.

Since the publication of the Bamford Reports, the Psychology Research Institute at the University of Ulster has completed the Northern Ireland Study of Health and Stress (NISHS). This study provides the first nationally representative estimates of mental health disorders among the Northern Ireland population based on validated diagnostic criteria. This chapter provides a summary of the current profile of mental health in Northern Ireland, drawing primarily on information from the NISHS. Relevant information is also drawn from a number of additional sources with the aim of giving a broad overview of mental health among various sub-populations.

The Northern Ireland Study of Health and Stress (NISHS)

The NISHS, a recently completed epidemiology study of mental health in Northern Ireland, reveals substantial levels of mental ill health among the adult population and associated challenges facing the primary care sector. The NISHS is a study of the World Mental Health Survey Initiative which is a collaboration of 28 identical national studies around the world. The NISHS provides the first epidemiological estimates of the rates of mental health disorders among the Northern Ireland adult population based on validated DSM-IV (APA, 1994) diagnostic criteria. The NISHS is a representative household survey of 4340 English speaking adults, 18 years and older in Northern Ireland. Participants were selected from a multi-stage, clustered, area probability sample of households. Face-to-face interviews were undertaken between February 2004 and August 2008 by professional interviewers from two research companies (Research Evaluation Services and Ipsos MORI). The response rate was 68.4%.

The survey instrument used in the NISHS, as in all the WMH studies, was the Composite International Diagnostic Interview (WMH-CIDI). This is a widely used, comprehensive, standardised instrument for the assessment of mood, anxiety, impulse-control and substance use disorders in keeping with the criteria for mental health as set out in the Diagnostic and Statistical Manual of Mental Disorders (DSM) and the International Statistical Classification of Diseases (ICD). The NISHS data provides information on the prevalence and correlates of mental health disorders, the level of treatment and unmet need and treatment adequacy.

The prevalence of mental health disorders among adults in Northern Ireland

The lifetime prevalence of broad DSM-IV disorder categories (as estimated in the NISHS) for the overall sample is presented in **Table 1** (Bunting et al, pending). Disorders considered include anxiety (panic disorder, generalised anxiety disorder (GAD), social phobia, specific phobia, agoraphobia,

posttraumatic stress disorders and separation anxiety; mood (major depressive disorder (MDD), dysthymia and bi-polar disorder; impulse-control (oppositional defiant disorder (ODD), conduct disorder, attention deficit disorder (ADD) and intermittent explosive disorder (IED); and finally substance disorder (alcohol abuse/dependence and drug abuse/dependence). The extent of the public health burden posed by mental health disorder is reflected in the overall estimate that 39.1% of the population have had at least one mental health disorder during their lifetime. Twenty two percent of the sample had two or more disorders while 12.5% had three or more. The most prevalent disorder category was anxiety disorders (22.6%) followed by mood disorders (18.8%), substance disorders (14.1%) and impulse-control disorders (8.6%).

Table 1. Lifetime prevalence for part 1 and part 2 samples of DSM-IV disorders

Disorder	Total Lifetime Prevalence			Total 12-month Prevalence		
	N	%	SE	N	%	SE
Any anxiety	604	22.6	1.2	366	14.6	1.0
Any mood	900	18.8	0.8	466	9.6	0.8
Any impulse	196	8.6	0.7	70	3.4	0.6
Any substance	295	14.1	1	68	3.5	0.5
Any disorder	951	39.1	1.7	548	23.1	1.4
2+ disorders	570	22.0	1.2	122	4.9	0.5
3+ disorders	338	12.5	0.8	124	4.5	0.5

Examination of these rates of mental health disorders with comparable figures from other WMH Survey Initiative studies reveal that Northern Ireland has one of the highest rates of mental disorder in the world. The overall prevalence of any disorder (39.1%) is the third highest estimate when compared with 17 other WMH studies (Kessler et al. 2008). Leavey et al. (2009) have also highlighted the evidence that there may be up to 30% higher levels of mental health problems in Northern Ireland compared to the rest of the UK and that the high levels of violence and deprivation appear to be important factors in this.

Table 1 also presents 12-month prevalence estimates for the aforementioned disorder categories (Bunting et al, under review) among the NI adult population, that is, the percentage of the population who met the criteria for a disorder within each of the four broad categories in the 12-months prior to the interview. As outlined in one of the earliest Bamford Review documents (2005), strategic planning for effective mental health service provision must be grounded on detailed population based information on mental health needs. These figures provide this vital evidence-base and are ultimately the closest estimation to the current level of mental ill health in the population and indicate the numbers of individuals with potentially unmet needs. Almost one quarter of the adult population (23.1%) met the criteria for at least one mental health disorder in the previous 12-months. This is the second highest estimate among completed WMH studies (Kessler et al. 2008). The most prevalent type of disorder was once again anxiety, followed by mood, substance and impulse-control disorders.

These elevated rates of mental health disorders in Northern Ireland have significant economic implications for individuals, families, the NHS, government and wider society. A recent report by the Northern Ireland Association for Mental Health (NIAMH) and Sainsbury Centre for Mental Health (SCMH) estimated that the economic costs of mental health disorders (which include direct care as well as lost productivity and quality of life) were nearly £3 billion in 2002/03 (NIAMH and SCMH, 2004).

Prevalence of mental health disorders among young people

One notable limitation of the NISHS is its focus on the general adult population (individuals aged 18 and over). Figures detailing the age-at-onset of various disorder types (which will be presented later) highlight that many disorders first develop in younger age-groups (particularly impulse-control, substance disorders and various anxiety disorders). These findings underline the need for targeting prevention, health promotion and intervention strategies among younger age-cohorts (Bunting et al, pending). The prevalence and recent trends of suicide and self-harm pose a particularly pertinent challenge to mental health services in Northern Ireland. The rise in suicide in Northern Ireland between the years of 1995 and 2005 is now a matter of record (DHSSPSNI 2005; Samaritans 2005). Within this period there was a 27% increase in suicide in Northern Ireland (Samaritans, 2007). The Bamford Report on child and adolescent mental health recognises the established link between childhood disorders in adulthood and stresses the potential adverse social costs of poor provision of childhood mental health services (Bamford, 2006a). As indicated in this report, there is a distinct lack of epidemiological information on the rates of mental disorders among young people in NI. A British study however suggests that around one fifth of young people will at some point have a diagnosable mental health disorder (Target and Fonaghy, 1996; cited in Bamford, 2006a).

Given higher levels of social deprivation (Bamford 2006b), the ongoing impact of 30-40 years of civil conflict (Ferry et al, 2008) and the elevated levels of adult mental ill health (Bunting et al, under review), it is possible that morbidity levels among young people in Northern Ireland are higher than this 20% figure. Given the simultaneous review commissioned, which focuses on children and young people, it is assumed that much of the evidence on mental health issues among this cohort will be considered in that report. This report however will incorporate evidence on children and young people specifically from a primary care perspective.

Prevalence of mental health disorders among older people

Despite increased recognition of our ageing population, little is known about the prevalence of mental ill health and the factors influencing the mental health of older people. The National Service Framework for Older People (Department of Health, 2001) recommended that older people experiencing mental health problems (including those living in care homes) should have access to treatment and support. The need for detailed information on mental health morbidity and the impact of variations in the access to and use of individual services have also been identified as key research priorities in the Bamford Review (2007). Estimates from the previously mentioned NISHS offer the first national representative estimates of mental health disorders and suggest that around 22% of those aged 65 years and over have had at least one mental health disorder at some point their life. Once again this figure represents the prevalence among the non-institutionalised population which excludes older individuals living in care homes who represent a particularly vulnerable group. Depression constitutes one of the most important psychiatric problems found in later life, both in terms of its substantial prevalence and its negative impact on quality of life. Prevalence estimates vary considerably depending on the assessment methodology used and the definition of depression, but it is estimated to affect up to 40% of older people who live in care homes (Mozley et al., 2004; Heath, 2006).

In addition to depression, dementia constitutes a further substantial public health concern among the older population. The most recent 'Dementia 2010' report commissioned by the Alzheimer's Research Trust estimated that 1.3% of the UK population suffer from Dementia (Health Economics

Research Centre, 2010). Northern Ireland specific figures, which were produced in a previous report by the Alzheimer's Society (Kings College London and London School of Economics, 2007) suggested that there are 16,000 people with dementia in Northern Ireland with this figure set to increase to 20,500 by 2017 and to over 47,000 by 2051. This represents a percentage increase of 30% and 200% respectively. Given these projected increases, it is imperative that adequate provision for the prevention, recognition and management of dementia in primary care is made.

The additional mental health impact of the Northern Ireland 'Troubles'

Given the backdrop of over three decades of civil conflict, Primary Care faces additional complexity in providing effective services for individuals who have mental health needs associated with their experience of conflict. An extensive body of literature has emerged in relation to the number of incidents experienced during the political violence and more recently numerous studies have examined the psychological impact of 'Troubles-related' trauma.

Ferry et al (under review) have examined the epidemiology of psychological trauma, PTSD and other trauma related disorders in the Northern Ireland adult population. Estimates suggest that approximately 60% of the population have experienced a traumatic event during their lifetime, while 40% of the population have experienced an event associated with conflict. The study reveals that 8.5% of the population met the criteria for PTSD during their lifetime while 5.1% (one in 20) met the criteria for PTSD in the previous 12 months. Among those who experienced a conflict related event, over 16% met the criteria for PTSD, highlighting the additional impact of the Troubles. While PTSD is a unique disorder in that it must be preceded and linked to a qualifying traumatic experience, it is recognised that a range of other mental health disorders may develop as a result of trauma. Ferry and colleagues (2008 and under review) further show that the experience of conflict related trauma is significantly associated with a range of other disorders including GAD, panic attacks, phobias, depression and substance disorders and indeed a wide range of chronic physical conditions. This complex range of outcomes linked to traumatic events emphasises the need for primary care practitioners to be aware of and adequately trained in recognising symptoms associated with the experience of psychological trauma.

Age-at-onset estimates for mental health disorders and socio-demographic risk factors

The Bamford Report outlining a strategic framework for adult mental health services identifies the need for improved GP training in the area of mental health with an estimated 50% of GPs having received no formal psychiatric training (Foy 2004 in Bamford 2006b). This poses a potential problem in the identification and appropriate management of mental health disorders. While the risks of mental ill health will ultimately vary depending on individual circumstances, information on likely age-at-onset and socio-demographic risk factors provides a useful profile for practitioners in primary care in helping to identify individuals with mental health service needs.

The NISHS provides estimates of the average age-at-onset for a range of mental health disorders. In terms of broad disorder categories, the age-of-onset was on average much earlier for anxiety disorders (14 years) and impulse-control disorders (13 years) compared with mood disorders (32 years) and substance use disorders (21 years).

Disorders generally had similar distribution characteristics with other disorders in their category. For example the median age of onset for all mood, impulse-control and substance disorders occurred

within a narrow range (31-36 years for mood disorders, 8-17 for impulse control disorders and 19-28 for substance disorders). Anxiety disorders on the other hand displayed a more varied age-of-onset distribution. While specific phobia and social phobia had a young median age of onset (8 years and 14 years respectively), the corresponding age of onset for panic disorder, generalized anxiety disorder and posttraumatic stress disorder was much higher (33 years, 35 years and 33 years respectively).

As previously indicated, information on individual characteristics that are likely to be associated with mental health disorders may provide a useful reference for service providers in primary care in the prevention, identification and management of mental health disorders and indeed in targeting prevention strategies. Bunting et al (pending) examined socio-demographic risk factors in relation to a range of mental health disorders, again using data from the NISHS.

While women were significantly more likely to have anxiety and mood disorders, men had significantly greater odds of having impulse-control and substance disorders. Age at interview was also significantly associated with having a disorder in each category with an overall trend of decreasing odds as age increased. Individuals who were separated, divorced or widowed were twice as likely to have anxiety, mood and substance disorders. Having a low or low-average income was associated with significantly elevated odds of having anxiety, impulse-control and substance disorders.

The prevalence and delays in treatment seeking for mental health problems in Northern Ireland

Given their role as gatekeeper for more specialist mental health services and treatments, GPs and other primary care practitioners play a vital role in identifying mental health problems and ensuring continuity of care. In addition to the need for widespread training, primary care faces another complex challenge in the large percentage of individuals with mental health treatment needs who do not seek help or who delay seeking help for many years.

The NISHS for example suggests that just 41% of individuals with an anxiety disorder in the 12-months previous to the interview, visited their GP or family doctor in the same time period. The corresponding figure for individuals with any mood disorder was 52%. Taking into account all mental health disorders, which include substance and impulse-control disorders, the relevant figure was 36% (Bunting et al, under review).

Analyses on duration of delays in treatment following initial onset of these disorder categories reveal a varied pattern. While individuals with a mood disorder seek treatment within two years of initial onset on average, those with anxiety and substance disorders wait an average of 22 years and 15 years respectively before making contact with any service provider. These findings may be viewed as surprising given that Northern Ireland has open and free access to primary care services through the NHS. They however draw attention to the specific challenge faced not only by primary care but among families, communities and the wider society in promoting awareness of mental health issues and encouraging individuals with treatment needs to seek help promptly following initial onset.

Summary

In summary, the aforementioned evidence provides a profile of mental health among the population in Northern Ireland. Mental health disorders in NI are highly prevalent, lying at the upper end of prevalence estimates from other countries around the world. Age-at-onset information suggests that young children and adolescents should be the main priority for policy and interventions. While

prevention, identification and management strategies for mental health should be tailored to individual needs, evidence presented herein provides a useful reference for primary care practitioners in identifying characteristics typically associated with mental health problems. In the light of evidence on the level of unmet treatment need and substantial delays in treatment for some disorders, targeted strategies are required that encourage early treatment seeking following initial onset of disorders.

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SECTION B
Methodology and Methods for
Identifying and Evaluating the
Literature

Realist Synthesis Approach

The proposed review seeks to help GPs, practice nurses, health visitors and other primary care staff to better recognise, diagnose and treat mental illness. This review will examine ways of making primary care services more accessible to all people with mental health issues, particularly those who, for cultural, geographical or other reasons, may try to manage alone. As children, young people and people with learning disabilities are specifically targeted in other priority areas, the proposed review will pay particular attention to adults and older people with mental health issues.

Reflecting the emergence of more context-specific and naturalistic methods of evaluation research, the science of systematic review has evolved in recent years, and there is increasing recognition of alternative approaches to evidence synthesis in the academic literature (Mays et al, 2005). As outlined in the original proposal, the approach taken for the identification and evaluation of literature drew upon 'Realist Synthesis' methodology. Given the timescale, a full realist synthesis was not possible. In a review of methods for rapid review, Watt et al (2008) concluded that rather than developing a formalised methodology by which to conduct rapid reviews, agencies should work toward increasing the transparency of the methods used for each review. The adoption of an adapted realist synthesis should enable such transparency to be achieved.

Realist synthesis (Pawson, 2006) was developed as a method of studying complex interventions in response to the perceived limitations of traditional systematic review methodology which, it is argued, follows a highly specified and intentionally inflexible methodology, with the aim of assuring high reliability. A realist review in contrast, follows a more heterogeneous and iterative process, which is less amenable to prescription but which needs to be equally rigorous, and to provide a clear audit trail of the review to see how decisions were made, evidence sought, sifted and assessed, and findings accumulated and synthesised. With its insistence that context is critical and that agents interact with and adapt to policies and interventions, realist synthesis is sensitive to diversity and change in programme delivery and development. In doing so, it steers away from issuing misleading 'pass/fail' verdicts on complex interventions and away from failed 'one-size-fits-all' ways of responding to problems (Pawson, 2006).

As a relatively new approach to evidence review, published examples of realist synthesis are rare. Examples from the health-related literature include a review by Greenhalgh et al. (2007) that sought to understand the efficacy of school feeding programmes. In this example the authors set out to examine studies from a Cochrane review, using realist synthesis. Through this process, in contrast to simply finding out whether feeding programmes worked, they were able to determine what it was about school feeding programmes that made them work. Greenhalgh et al. (2004) also used some principles of realist synthesis in a meta-narrative review of the diffusions of innovation literature. This resulted in a theoretical framework that represents the multiple factors and interactions that might arise in particular contexts and settings, which may determine the success or failure of innovation adoption. McCormack and colleagues (McCormack et al. 2006; McCormack et al. 2007 a, b, c, d) also conducted an extensive realist synthesis, which critically evaluated the evidence base underpinning approaches to practice development. Whilst only a handful of realist syntheses have been published, there has been sufficient work completed to underpin the development of a framework for their conduct.

Given the structure of the National Health Service in Northern Ireland, which positions primary care as the gatekeeper for more specialist mental health services and treatment, the team felt that a realist approach was ideally suited to the current review. Furthermore, in contrast to a systematic review, a realist approach offers a methodology which is sensitive to other specific human (e.g. family) or social (e.g. community/organisational) systems relevant to Northern Ireland, as well as the enduring legacy of the 'Troubles'. Similar to the review of school feeding programmes by Greenhalgh

et al (2007), rather than trying to answer the global question ‘are primary health care services effective in the delivery of mental health services?’, a realist approach is concerned with understanding what it is about primary health care approaches that work, for specific groups of people, when, why and how? It was also envisaged that this approach is more appropriate for the current rapid review, given the intention to generate research questions for further investigation.

The purpose of the current review is therefore to answer the following key question: ***“What aspects of primary care are effective in the prevention, recognition and management of mental health issues across the lifespan; for whom do they work, in what circumstances and why?”***

Overview of Specific Steps in the Review Process

The following steps indicate the specific process adopted by the research team in the completion of the current rapid review, highlighting how the process was guided by realist synthesis principals.

1. Identification of the question: Based on the key question (above) the review team identified a series of ‘sub-questions’ that ultimately shaped the literature search strategies. These questions were identified by an examination of standards of best practice for the prevention, recognition and management of mental health services in primary care. Specifically, formulation of the research question(s) was informed by guidance and standards from the National Institute for Clinical Excellence (NICE). Given the direct association of this review with the Bamford Review of Mental Health and Learning Disability, development of the research question(s) also drew on the Mental Health Promotion Report (Bamford 2006) which outlined the key role of primary care in ‘promotion of mental health and well-being for all in the population at large’. These standards and guidelines were collated and reviewed by the research team and key themes were identified which formed the basis of sub-questions to be addressed. The identified sub-questions arising from this process are presented in Section C.

2. Clarification of the purpose(s) of the review: Following identification of the research questions to be addressed, the team met to discuss and clarify the overall aim and purpose of the review. Consistent with the Bamford reports, the review includes the prevention of mental health problems through education and health promotion initiatives in primary care; screening tools and strategies for the early detection of mental health problems across the lifespan, including recognition of comorbid physical and mental health problems; the effectiveness of interventions (e.g. psychological therapies, counselling, medication and other initiatives, e.g. Beating the Blues) for managing common mental health problems in primary care: conceptual models and evidence base; effective use of primary care in the early detection and management of suicide risk; promoting equity in service provision across rural and urban areas; effective collaboration with statutory, voluntary and independent organisations with an interest in mental health issues; developing ‘quality standards’ for making primary care mental health services more accessible to service users across the lifespan; best practice in service provision for older people with mental health problems including dementia; initiatives for supporting families and carers including information, advice and respite; and value for money: clinical and cost effectiveness of service delivery.

3. Development and articulation of the programme theories: As previously indicated, realist synthesis is informed by theory and the current review was ultimately driven by the theories that underpin the prevention, recognition and management of primary care mental health. Articulation of the programme theories was informed by the outcomes of the aforementioned steps. The team evaluated and collated the information on standards and guidelines for mental health services in primary care and initially devised a ‘long list’ of programme theories. These theories were grouped and categorised with respect to specific sub-populations (e.g. general population, older people),

disorder types (e.g. depression, anxiety, substance use, self-harm and suicide) and cross-cutting issues relevant to primary care services in Northern Ireland (e.g. services in rural areas, supporting families and carers). Finally, based on the theories relating to these specific groupings and categories, the team articulated a statement which outlined the '**ideal model**' for primary care services in Northern Ireland. This ideal model and theories upon which it is based was used to design an evaluative framework for review evidence. Specifically identification, collation, analysis and evaluation of the literature were framed according to this ideal model and programme theories. A summary of the key theories identified from standards and guidelines and statement of the ideal model is presented in section C.

4. Search for the evidence: The search for relevant literature pertaining to mental health and primary care adopted a 'review of reviews' approach. The method used for this review of reviews was a modified version of the Systematic Rapid Evidence Assessment (SERA) methods developed by the EPPI-Centre (see Caird et al 2010 for more detail). More details of the methods employed are outlined in Section D. Initial search terms were framed from the theories and research questions developed in steps 1-3 and an extensive and systematic search was conducted to identify the relevant literature. Searches were conducted using electronic databases (e.g. British Nursing Index, Pubmed, The Cochrane Library). In addition these databases were supplemented with searches of a number of relevant websites (e.g. Department of Health, ESRC, Kings Fund, NHS). Full citation searches using Google Scholar and Scopus were conducted on all key papers. Email requests for information were sent to key informants). In the first instance a variety of permutations and combinations of the following search terms were used: 'Mental Health AND Primary Care' AND 'Systematic Review' OR 'Literature Review' OR 'Meta-Analysis' OR 'Guidance' OR 'Guidelines OR Quality Standards'. Additional free text searches were carried out to identify reviews on specific topics including prevention of suicide, provision of services in rural areas and support for families and carers. All the retrieved studies were stored on a shared folder and details including main keywords were entered into the Endnote bibliographic software package for ease of management.

5. Appraisal of the evidence: Data found in the searches were appraised using the review question and sub-questions as a guide. Located papers were screened for relevance before inclusion using the previously derived theories and questions as a framework for analysis. Two reviewers independently assessed titles and abstracts identified through searching against the inclusion criteria (outlined in Section D). Where no abstract was available from bibliographic database records, an attempt was made to retrieve the full paper. Following the initial screening and categorisation, a second screen for relevance was conducted by a single reviewer who looked in more detail at the abstract and text to assess the review process, transparency of the review, methods for synthesis, and extent of results reported, relevant outcomes and relevant population.

6. Extraction of the results: The framework used by Caird et al (2010) was used to extract and record information from each review paying attention to: the focus of the review, type of review, type and numbers of included studies, country of origin, findings of review and year of publication. In addition, a template was devised based on steps 1-3 into which the results of evidence appraisal were inserted.

7. Synthesis of the findings: The data from all templates were reviewed and key findings extracted. Both confirmatory and contradictory findings were sought. These key findings in terms of prevention, recognition and management of mental health disorders in primary care are presented in Section D of this report. Following extraction and synthesis of results, the research team evaluated findings in relation to the overall research question, key theories and ideal model. Discussion of this evaluative process is presented in Section E with the ultimate aim of determining: "**What aspects of**

primary care are effective in the prevention, recognition and management of mental health issues across the lifespan; for whom do they work, in what circumstances and why?"

The stated purpose of this approach to literature review (based on Realist Synthesis) is to provide usable conclusions. We therefore anticipate that this report provides clear guidance concerning further research needed into the conduct of primary mental health care interventions. A series of conclusions and recommendations have therefore been included in Section F, and within the Executive Summary.

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SECTION C

Research Questions, Key Theories and Ideal Model of Primary Care Mental Health Services

Standards and Guidance for Good Practice in Primary Care

As previously noted, the overall research question to be addressed in this rapid review of literature is: ***“What aspects of primary care are effective in the prevention, recognition and management of mental health issues across the lifespan; for whom do they work, in what circumstances and why?”***

The specific steps involved in this review have been outlined in Section B which highlighted how principles of Realist Synthesis have guided the overall process. Informed in the first instance by the aforementioned broad research question, the research team initially undertook a review of recognised standards and guidelines of good practice in the prevention, recognition and management of mental health disorders in primary care. The research team also augmented information from these guidelines and standards, with relevant information from studies and reports which focused on primary care services within the Northern Ireland context. Specifically the team examined guidance from the following sources of information:

- NICE Clinical Guideline 16 on Self-harm (National Collaborating Centre for Mental Health (NCCMH), 2004).
- NICE Clinical Guideline 26 on PTSD (NCCMH, 2005).
- NICE Clinical Guideline 42 on Dementia (NCCMH, 2011).
- NICE Clinical Guideline 90 on Depression (NCCMH, 2009).
- NICE Clinical Guideline 113 on Generalised Anxiety Disorder and Panic Disorder (NCCMH and National Collaborating Centre for Primary Care (NCCPC), 2011).
- NICE Clinical Guideline 115 on Alcohol-use Disorders (NCCMH, 2011).
- NICE Clinical Guideline 120 on Psychosis (NCCMH, 2011).
- SIGN National Clinical Guideline 86 on Management of Patients with Dementia (Scottish Intercollegiate Guidelines Network, 2006).
- NHS QIS Standards for Mental Health (2007)
- Fast Forwarding Primary Care Mental Health. Best Practice Guidance (Department of Health, 2003).
- Bamford ‘Mental Health Promotion Report’ (Bamford Review of Mental Health and Learning Disability, 2006).
- Bamford ‘Strategic Framework for Adult Mental Health Services’ report (Bamford Review of Mental Health and Learning Disability, 2005).
- National Library for Health, Specialist Library. Guidance on Self-harm, Suicide and Risk (Royal College of Psychiatrist, 2010)
- Management of Patients who Deliberately Harm Themselves (Isacson and Rich, 2001).
- RCGP’s Curriculum Statement 13. Care of people with Mental Health Problems. (Royal College of General Practitioners 2007).
- Improving Quality in Primary Care: A Practical Guide to the National Service Framework for Mental Health (Gask et al 2000).

Research questions derived from standards and guidance

Following extraction of relevant information from the numerous sources listed above, the research team collated, evaluated and summarised the key aspects with the aim of deriving a list of sub-questions to be addressed in the review. The following research questions were identified:

1. What does the evidence tell us about the effectiveness of assessment services/processes in primary care?

2. What circumstances help or hinder the effectiveness of assessment services/processes and what are the implications of this/these on targeted and accurate diagnosis?
3. What evidence is there of the effectiveness of primary care services building on and working with other services to ensure continuity of care across all phases of care and service delivery?
4. To what extent is partnership working in facilitating service user/carer wishes, decisions and treatment options evident and what effect does such working have on service user outcome?
5. How effective are existing health promoting strategies used in primary care and how do these strategies help to reduce the impact of psychiatric conditions on individuals, families and communities?
6. What evidence is there that GPs are adequately trained for assessing, diagnosing and planning treatment/treating people with mental health needs?

Key principles of an ideal primary care mental health service for adults

In accordance with the key principals that underpin a realist synthesis approach, this review is theory driven. Explicitly, the review evidence relating to prevention, recognition and management of mental health in primary care will be compared with key theories and principles of good practice. In addition to the sub-questions derived from review of the aforementioned guidance and standards, the team sought to identify key *theories* of good practice in primary care. Following extraction of relevant data from these sources, the team summarised information under the key themes of: assessment, diagnosis, care co-ordination, carers, person-centred care, prevention and training. Informed directly by these summaries, the following *principles of an ideal primary care mental health service* and an overall statement of the *ideal primary care mental health service model* are proposed:

1. Primary care services should provide comprehensive targeted assessments based on standardised criteria that are focused on maximising treatment options and minimising risks.
2. Mental health diagnoses should be based on comprehensive assessment that has followed standardised criteria.
3. Primary care services should build on and work with the local authority community services, with colleagues in secondary specialised services, and services in the non-statutory sector, in order to ensure continuity of care across all phases of care and service delivery.
4. Primary care teams should work in partnership with carers.
5. Services for adults with mental health needs should work with service users and others significant to them in a way that ensures their wishes, decisions and treatment options are facilitated in an atmosphere of trust and respect.
6. Opportunities for mental health promotion should be taken and integrated into the role functions of all members of the primary health care team.

7. Primary healthcare professionals should have the appropriate training to assess and treat adults with mental health needs.
8. GPs should be aware that mental health disorders commonly co-exist with both physical disorders and other mental disorders, and they should be competent in recognising and assessing these possible associations.

Statement of the Ideal Model

Primary care mental health services should be provided from the basis of a comprehensive assessment that leads to the making of specific diagnoses. Resulting care provision should be integrated with community services, extend the work of secondary care and be delivered in a person-centred way, in partnership with carers and others who are significant in the life of the person with mental health needs. Health promoting strategies should be utilised wherever possible and primary care staff should be appropriately trained in meeting the needs of service users with a variety of mental health needs and psychiatric disorders.

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SECTION D

Mental Health Intervention within Primary Care: Synthesis of Review Level Evidence

Deirdre Fullerton and Liz Burtney

Insights Health and Social Research

Abbreviations Explained

CAMHS	Children and Adolescent Mental Health Services	ICN	Integrated Care Network
CAT	Change Agent Team	ICP	Integrated Care Pathway
CBT	Cognitive Behavioural Therapy	IPT	Interpersonal Therapy
CCBT	Computerised Cognitive Behavioural Therapy		
CC	Collaborative Care	MED	Mental and Emotional Disorders
CHD	Coronary Heart Disease	NCCMH	National Collaborating Centre for Mental Health
CMH	Community Mental Health	NHS	National Health Service
CVD	Cardiovascular Disease	NICE	National Institute for Clinical Excellence in Health
DH	Department of Health	PND	Postnatal Depression
'EI	Early Intervention		
EIS	Early Intervention Service	PTSD	Post-Traumatic Stress Disorder
EMDR	Eye movement Desensitization and Reprocessing	PST	Problem Solving Therapy
IPT	Interpersonal Therapy	RCT	Randomised Control Trial
GAD	General Anxiety Disorder	SIT	Stress Inoculation Therapy
GP	General Practitioner	SIGN	Scottish Intercollegiate Guidelines Network
IAPT	Improving Access to Psychological Therapies	TAU	Treatment As Usual

SECTION 1: BACKGROUND AND METHODS

1. Background and context

The prioritisation of primary care in the Bamford Implementation Plan recognises the centrality of primary care to mental health service provision. As part of a more holistic approach to evidence synthesis in mental health, the University of Ulster team was commissioned to explore the role of primary care work in the prevention, recognition and management of mental health issues across the lifespan. Using a realist synthesis approach the review team also questioned for whom does it work, in what circumstances and why?

As part of this research project, Deirdre Fullerton and Elizabeth Burtney from *Insights Health and Social Research* joined the partnership to conduct a rapid evidence review with the following aim:

To synthesize the available review level evidence on the effectiveness of primary care in the prevention, recognition and management of mental health issues across the lifespan.

Specifically, review level evidence has been assembled in the following (sometimes overlapping) areas:

- Mental health promotion and prevention of mental ill health** within primary care settings
- Early detection** of mental health with specific focus on child/young people and older people
- Effective use of primary care for **the early detection and management of suicide risk**
- interventions for managing common mental health problems in primary care
- The **effectiveness of different models/interventions** for managing common mental health problems in primary care
- Effective collaboration** with statutory, voluntary and independent organisations with an interest in mental health issues
- Initiatives for supporting families and carers** including information, advice and respite

In addition to presenting the most recent of evidence on effectiveness of different screening and interventions, this review presents contextual review level information and relevant guidance and standards emerging from this evidence (e.g. NICE guidelines, SIGN guidance).

1.2 Research approach

The approach taken for the review of reviews was a modified version of the Systematic Rapid Evidence Assessment (SERA) methods developed by the EPPI-Centre (see Caird et al 2010 for more detail¹). While not a pure systematic review the process includes the features of such a review in the identification, critical appraisal, selection, and data extraction procedures in order to limit bias at all stages.

1.2.1 Research parameters

The limited time scale of the project and the large body of research literature meant the scope of the review of reviews had to be limited in the following ways:

1. Only systematic reviews were considered for inclusion, making this a review of reviews or a 'meta-review'
2. Following discussion with the wider research team, the research was specifically focused on a number of selected areas
3. A flexible search strategy using free text words was developed which employed a limited rather than exhaustive range of search terms
4. The search for grey literature included searches of key websites.

1.2.2 Review definitions

The following definitions were employed for the purposes of this review of reviews.

Mental Health

The WHO definition of mental health has been employed. It states that mental health is not just the absence of a mental disorder but a state of well-being in which individuals realise their potential, can cope with normal stresses of life and can work productively and fruitfully, and make a contribution to community. It is related to the promotion of well-being, the prevention of mental ill health and treatment and rehabilitation of people affected by mental ill health.

Primary Care

Primary care is the first point of contact for a patient with a healthcare provider and for this report includes general practitioners, practice nurse and pharmacist. While recognizing increasing access through self-referrals to CMH teams in some areas, the predominant model is through health professional referrals, and as such self-referral access is not included in this definition of primary care.

Systematic review

A study was considered to be a systematic review if it presented a defined search strategy and explicit inclusion criteria.

¹ Caird J, Rees R, Kavanagh J, Sutcliffe K, Oliver K, Dickson K, Woodman J, Barnett-Page E, Thomas J (2010) *The socioeconomic value of nursing and midwifery: a rapid systematic review of reviews*. London: EPPI Centre, Social Science Research Unit, Institute of Education, University of London.

Review of Reviews

A review of reviews is a synthesis of the available evidence based on quality assessed systematic reviews. Similar to systematic reviews a review of reviews uses a defined search strategy and explicit inclusion criteria.

1.2.3 Search strategy

The focus of this research was to identify review-level evidence for collation and synthesis. A systematic search of the literature was conducted to identify relevant papers. The criteria and definitions for the search are outlined in Table 1 below.

Table 1: Search parameters

Criteria	Definition
Type of study	Systematic review or review of reviews
Populations	Primary care team AND adults
Topic	Mental Health (Depression OR General Anxiety Disorder OR PTSD OR Psychosis OR Schizophrenia OR Dementia OR Alcohol Abuse)
Interventions	Prevention Mental Health Promotion Mental Health Screening Treatment Mental health Management (excluding pharmacological treatment) Suicide Prevention Support for carers
Setting	Primary Care
Language	Published in English
Time period	Published during or after 2000
Countries	Developed world

An extensive and systematic search was conducted to identify the relevant literature. Searches were conducted using electronic databases (presented alphabetically).

- British Nursing Index
- Cumulative Index to Nursing and Allied Health Literature (CINAHL)
- The Cochrane Library
- Database of Abstracts of Reviews of Effects (DARE)
- Database of promoting health effectiveness reviews (DOPHER)
- Health Management Information Consortium database
- Health Technology Assessment (HTA)
- National Health Service Economic Evaluation Database
- PsychLit
- Pubmed
- TRIP Database.

Databases were supplemented with searches of the following websites:

- The Academy of Nursing, Midwifery and Health Visiting Research
www.researchacademy.co.uk
- Department of Health

www.dh.gov.uk

- Effective Public Health Practice Project

www.ehphp.ca/systematicreviews.html

- Google Scholar

<http://scholar.google.co.uk/schhp?hl=en>

- NHS SDO

www.sdo.nihr.ac.uk

- National Federation

<http://www.nhsconfed.org>

- Nursing and Midwifery Council

www.nmc-uk.org

- Nursing Health Services Research Unit

www.nhsru.com

- Royal College of Midwives

www.rcm.org.uk

- Royal College of Nursing

www.rcn.org.uk

- Royal College of General Practitioners

<http://www.rcgp.org.uk>

- Sainsbury Centre for Mental Health

www.centreformentalhealth.org.uk

Full citation searches using Google Scholar and Scopus were conducted on all key papers. Email requests for information were sent to key informants.

Reflecting the different databases search, a variety of search terms was used reflecting the different types of papers.

(Mental Health AND Primary Care) AND (Systematic Review OR Literature Review OR Meta-Analysis OR Guidance OR Guidelines OR Quality Standards) AND (screening OR detection OR management OR treatment)

Additional searches were conducted using the following keywords to identify sub-topics

Depression OR Depressive Disorders OR Affective Disorders OR Mood Disorders

General Anxiety Disorders OR Panic Disorders

Dementia OR Alzheimers

Children OR child OR adolescen* OR Teenager OR Young Person

Psychosis OR Schizophrenia

Additional free text searches were carried out to identify reviews on specific topics including prevention of suicide, alcohol abuse, chronic illness and mental health, and support for families and carers.

All the retrieved studies were stored on a shared folder and bibliographic details including main keywords were entered into the Endnote bibliographic software package for ease of management.

1.3 Inclusion criteria

To be considered for inclusion in this report, reviews had to:

- Be a systematic review, meta-analysis, synthesis or review-level paper
- Describe a search strategy and criteria for including studies
- Be published in the English language
- Be conducted in a developed world country
- Be published since 2000
- Be a review of non-pharmacological interventions
- Investigate the effectiveness of different strategies/approaches to the prevention, detection or management of mental health within primary care or the support of families/carers of people with mental health problems.

This review excluded reports on pharmacologic treatments/care.

Due to time limitations a cut-off date for searching was established.

Located papers were screened for relevance before inclusion. Two reviewers independently assessed titles and abstracts identified through searching against the inclusion criteria. Where no abstract was available from bibliographic database records, an attempt was made to retrieve the full paper.

Following the initial screening and categorisation, a second screen for relevance was conducted by a single reviewer who looked in more detail at the abstract and text to assess the review process, transparency of the review, methods for synthesis, extent of results reported, relevant outcomes and relevant population. From this second screen papers were **excluded** if the review:

- Did not report on effectiveness of approaches/models/interventions
- Was not systematic
- Focused on developing countries
- Fell outside topic parameters as outlined above
- Was not reporting on interventions delivered within our definition of primary care
- Focused on pharmacological treatment of care.
- Focused on significant learning or developmental disability (as this topic was being covered in another study within the same funding stream)
- Focused on drug abuse/addiction. The review did examine the evidence on alcohol abuse.

1.4 Quality assessment

Only reviews meeting a minimum quality threshold were considered for further synthesis. A quality assessment tool used by Fullerton and Burtney (2010²) was employed to assess the quality of relevant reviews:

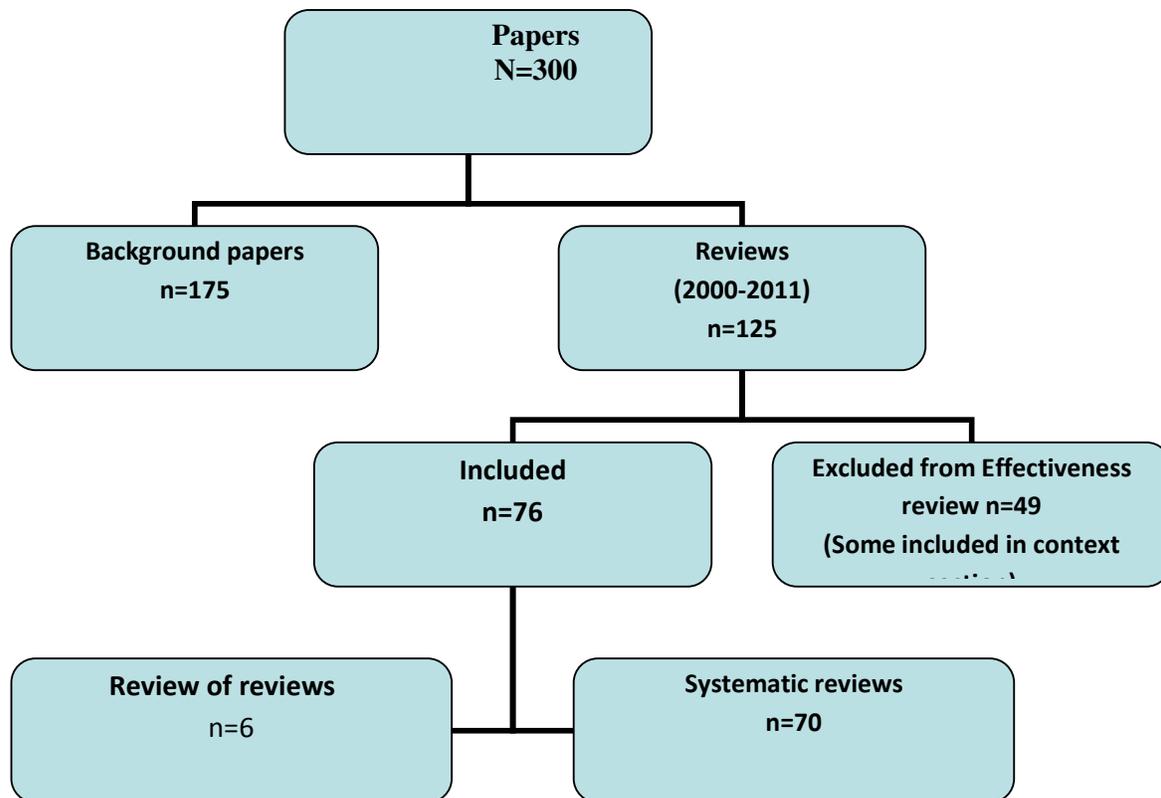
- Use of a comprehensive search strategy
- Use of explicit inclusion criteria
- Included a quality assessment of included studies
- Conducted a synthesis of findings.

² Fullerton D and Burtney E (2010) *An overview of the effectiveness of sexual health improvement interventions*. Report to Health Scotland, Edinburgh. <http://www.healthscotland.com/documents/4622.aspx>

Two reviewers compared findings and conducted quality assessment separately.

The searches identified 300 papers with relevance to mental health interventions within primary care settings of which 125 were systematic reviews conducted since 2000.

Given the breadth of the review, the volume of reviews and the time available to conduct the review (16 weeks), the most recent reviews of **high quality** were used as core sources for the evidence supported by earlier reviews.



1.4.1 Breakdown of Reviews by Topic

Some reviews were broad based exploring aspects of a condition (e.g. depression) across the lifespan. Other reviews were focused by both condition and population (e.g. depression and chronic illness). As a result some reviews are included in more than one section.

- Children and Young People: Review of Reviews n=1 Systematic Reviews n=10
- Antenatal and Postnatal Depression: Systematic Reviews n=13
- Depression in Adults: Review of Reviews n=2 Systematic Reviews 10
- Depression in Older Adults: Systematic Reviews n=5
- General Anxiety Disorder: Review of Reviews n=1 Systematic Reviews n=2
- Psychosis and Schizophrenia: Review of Reviews n=1 Systematic Reviews n= 2
- PTSD: Systematic Reviews n=7
- Alcohol Misuse: Systematic reviews n=3
- Chronic Illness: Systematic reviews n=6
- Dementia: Systematic reviews n=7

- Suicide prevention: Review of Reviews n=1 Systematic Reviews n=10

1.5 Data extraction

The framework used by Caird et al (2010) was used to extract and record information from the core reviews paying attention to

- Focus of the review
- Type of review
- Type and numbers of included studies
- Country of origin
- Year of publication.

Given the wide focus of this review describing different conditions and interventions, the key findings from the included reviews are presented in a narrative synthesis within the body of the review rather than in table format.

1.6 Guidelines and standards

A different strategy was used to identify guidelines or standards. Electronic databases were searched with the following keywords (guidelines OR standards) AND (mental health OR primary care) AND services. Web-based searches were conducted using Google Scholar and the following websites were searched:

- National Institute of Clinical Excellence (NICE) <http://www.nice.org.uk/>
- Scottish Intercollegiate Guidelines Network (SIGN) <http://www.sign.ac.uk/>

1.7 Synthesis

The findings from reviews within each topic were grouped and presented using the following headings:

- Background
- Prevention
- Screening and identification
- Different approaches to treatment within primary care (excluding pharmacological treatments)
- Support for families and carers (where relevant)
- Cost effectiveness
- Guidelines
- Gaps in evidence

The individual syntheses for this rapid review often needed to call upon findings from more than one review. As a result, the syntheses are presented in narrative format.

1.8 Presentation of Findings

The findings from the review are grouped to reflect mental health across the lifespan focusing on population groupings (e.g. pregnant women, children and young people, general population and older people) and conditions: depression (across the lifespan), anxiety disorders, psychosis/schizophrenia, alcohol dependency, chronic illness, and dementia and suicide prevention. For ease of access references to the cited papers are provided at the end of each section.

1.9 Limitations of this review

As with any research, there are limitations to this review. The report aims to present an overview of the key messages emerging from national and international review-level evidence on the effectiveness of mental health interventions within primary care settings. Given the scope of this task and the rapid nature of the review (short timescale), the most appropriate research approach to synthesise the effectiveness evidence was to rely on evidence presented by systematic reviews. While this approach permits a rapid assessment of the available evidence across a range of topics and populations, its reliance on secondary analysis of material has limitations. Some of the evidence has been highly processed, which means it is not always possible to present details on interventions or to draw out clear messages for practice as this would require revisiting the primary studies.

A reliance on reviews as the main source of evidence can result in an over-emphasis on evidence from research conducted outside the UK (e.g. USA and Australia), which makes it difficult to generalise the characteristics of effective interventions to a Northern Irish setting with a different healthcare system. To address this limitation where possible we draw on UK research to provide examples of interventions.

In addition, while the systematic reviews themselves were assessed for quality, authors have adopted different inclusion criteria and critical appraisal procedures (e.g. some authors only include RCTs whereas others include quasi-experimental designs).

Similarly, the variety of measures used to judge the success of individual interventions made it difficult to draw conclusive evidence on the effectiveness of a given approach. While primary studies often report on one or more outcomes, not all this information is presented at review level. This lack of consistency of reporting outcomes in review-level evidence means that it is not always possible to assess the effectiveness of a given approach across specific outcomes.

While every attempt was made to include the most recent reviews, there is a time lag between studies being published and their incorporation in a systematic review. This means that many of the reviews included studies conducted since 2000, but not all of the most recent primary studies have been included. It was not possible within the available timescales to include primary studies conducted since the most recent review.

In summary, the data presented in this evidence review are only a partial answer to the '*what works*' question with respect to the mental health interventions delivered within primary care settings. Other research approaches that might answer some of the practice based questions concerning mental health interventions in Northern Ireland include:

- Survey or mapping study of practice
- Case studies detailing 'promising practice' in the delivery of mental health interventions in primary care
- Evaluations of local implementation of effective approaches from elsewhere (i.e. transferability to local context)
- Studies of users' (and carers') views and experiences of service delivery.

As such this review of reviews forms one part of the evidence of mental health interventions within primary care that will be presented alongside more contextual research within a realist synthesis in order to examine the questions '*are primary health care services effective in the delivery of mental health services?*', *What is it about primary health care approaches that works, for specific groups of people, when, why and how?*

References for Section 1: Children and Young People

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Fullerton D and Burtney L (2010). An overview of the effectiveness of sexual health improvement interventions. Edinburgh: NHS Health Scotland

SECTION 2: POPULATION GROUPS

This section presents the evidence on mental health risks and common mental health problems grouped by different population across the lifespan:

- Depression
- General anxiety disorder (GAD)
- Psychosis and schizophrenia
- Post-traumatic stress disorder (PTSD)

2.1 Young People

Please note: the QUB team (MacDonald et al) has reviewed the literature on children and young people. For the purpose of this review the focus is on interventions that can be delivered by primary care team.

Comparisons: Range of psychotherapies to improve outcomes for depression compared to TAU

Source: 1 Review of Review
10 Systematic Reviews

Good evidence to support

- Psychotherapy to improve depression symptoms

Limited evidence to support:

- Mixed evidence on the effectiveness of preventive programmes, further research is required with longer term follow-up.
- Screening of and indicated prevention with 'at risk' (e.g. Children with chronic illness or children with parents with depression/mental health problems). Some promising evidence but based on small number of weak studies.
- Some evidence on the accuracy of screening for depression within primary care but further research required to establish the effectiveness of treatment.
- On the effectiveness of exercise for children in treatment for anxiety and depression

Insufficient evidence to support or reject:

- Cost effectiveness of mental health interventions with children/young people in primary care settings

Summary of Evidence

Source of Evidence

1 Review of Reviews
10 Systematic Reviews

Mixed Evidence

- There is some evidence on the accuracy of screening for depression within primary care, but further research required to establish the effectiveness of treatment.
- Mixed evidence on the effectiveness of preventive programmes – further research is required.
- On the screening of and selected intervention with those deemed ‘at risk’ (e.g., children with chronic illness or children with parents with depression/mental health problems). Some promising evidence but based on small number of weak studies.

Insufficient Evidence

- On the effectiveness of exercise for children in treatment for anxiety and depression
- On cost effectiveness of mental health interventions with children/young people in primary care settings

2.1.1 Background

Roughly half of all lifetime mental disorders in most studies are reported to start by the mid-teens and three quarters by the mid-20s. Later onsets are mostly secondary conditions. Severe disorders are typically preceded by less severe disorders that are seldom brought to clinical attention (Kessler et al 2007).

Prevalence studies have revealed high rates of oppositional disorder, attention-deficit hyperactivity disorder (ADHD) and emotional disorders among children aged between 3 and 5 years. Between 6% and 8% of children of this age have moderate or severe disorders and a further 10% have mild disorders. In addition, a relatively small number of children are first identified as showing less common disorders such as autism (about 3–4 per 10,000) or autistic spectrum disorders (about 15 per 10,000). There is a high level of predictability of later conduct disorder in young children who show oppositional disorder or ADHD or a combination of these. Many of these children also become depressed later. Behavioural problems associated with learning disability and pervasive developmental disorder show a strong continuity from childhood to adult life (Royal College of Psychiatrists, 2002).

The middle school years (6–10 years) and early adolescence (11–14 years) are characterised by high rates of conduct and emotional disorders (around 10–15% of the population are at risk), with adult-type depressive disorders beginning to make an appearance (around 1–2%). Most depressive disorders in middle childhood and early adolescence are comorbid with anxiety states or, slightly less commonly, with conduct disorder. Although the rate of suicide is very low before 14 years,

attempted suicide begins to occur around 11–12 years and rapidly increases in frequency in the early and mid-teens (see section on suicide for further information).

Given the high prevalence of mental health problems in young people, the fact that the 12–26 year age range represents the peak period for onset of mental disorders across the lifespan (Moon, Meyer & Grau, 1999; Patton, 1996 cited by WHO 2004), and evidence that early detection and treatment of depression and psychosis improves outcomes (Kupfer, Frank & Perel, 1989; Loebel et al., 1992 cited by WHO 2004), the WHO (2004) report suggests that population-based, indicated prevention and early intervention strategies may provide valuable opportunities to minimize the considerable burden of these disorders.

Chronic physical conditions among young people have been found to be associated with a slightly elevated risk for self-harm, suicidal thinking, and attempted suicide; and chronic mental conditions are associated with an increased risk for all 3 outcomes (Barnes et al 2010). Co-occurring chronic physical and mental conditions are associated with an increased risk for self-harm and suicidal ideation that is similar to the risk in chronic mental conditions and with an attempted suicide risk in excess of that predicted by the chronic mental health conditions alone (see section on Chronic illness for further information).

Children of parents with depression and related difficulties have a substantially higher rate of depression than their counterparts in homes with no mental illness (Weissman et al 1997; Weissman et al 2006; O'Connell et al 2009). Screening for parental mental disorders, such as depression, PTSD, domestic violence, and substance use, is key to designing interventions to reduce children's risk and has been recommended for primary care (Whitaker 2006 cited by McConnell et al 2009).

Despite the prevalence and adverse outcomes of experiencing mental health problems during adolescence and young adulthood, young people are often reluctant to seek help for mental health problems and are the least likely of all age groups to receive appropriate mental health care. Authors (NCCMH & BPS 2005) have noted that there is no clear-cut consistency in how depressed children and young people present to healthcare services. The clinical picture varies in ways that are poorly understood, with different levels of severity, personal impairment and developmental age. For example, cognitive features of worthlessness, self-criticism and poor attention increase in adolescence; and somatic features, such as aches and pains, tend to be more prominent in children (Ryan *et al.*, 1987; Goodyer & Cooper, 1993; Kolvin & Sadowski, 2001; Luby *et al.*, 2003 cited by NCCMH & BPS 2005).

2.1.2 Prevention

Primary prevention can be sub-divided into universal, selective and indicated prevention (Gordon, 1983).

- **Universal** prevention measures are those regarded as desirable for everyone, and the decision to implement them is taken if their benefits clearly outweigh the costs and risks of implementing them (e.g. seatbelts, encouragement of safe drinking, reduction of cigarette smoking, healthy eating and exercise).
- **Selective** prevention measures are agreed to be appropriate when an individual is a member of a subgroup of the population (e.g. age, gender or occupation) whose risk of becoming ill is above average. Examples of selection prevention measures are good antenatal and perinatal care in pregnant women or inoculation for health care workers.

- **Indicated** prevention measures are undertaken for groups at high risk, such as for schizophrenia when a genetic susceptibility is strongly suspected, or for groups that have experienced severe, clearly defined, emotional stress, such as children exposed to disasters or violence.

Much of the universal preventive activities to reduce psychiatric disorders tend to take place in the early years and involve health visitors and other members of the PCT working in partnership with other service providers such as Surestart programmes and early years educators. The Royal College of Psychiatrists (2002) recommended that such professionals need training to acquire skills in identifying young children at risk due to the parenting they are receiving, or because of the presence of early signs of behaviour disorders. Access to advice from child mental health services through secondary care professionals and the possibility of referral to such services should exist.

Other prevention work with children and young people takes place in school and community settings and includes work with parents, school based interventions, youth development approaches and one to one counselling. (See parallel stream of work by MacDonald and colleagues for more information on such approaches).

Reviews have examined the evidence on the effectiveness of preventive interventions to reduce depression in children and young people (Horowitz and Garber, 2006; Merry et al 2004; Merry and Spence 2006; Cuijpers et al., 2008). The available evidence is mixed. Some benefit has been reported for preventive interventions for reducing depressive symptoms in children and adolescents, with small to modest effect sizes (Horowitz and Garber, 2006; Jané-Llopis et al., 2003). Recent meta-analyses have concluded that interventions to prevent depression can reduce both the number of new cases in adolescents (Cuijpers et al., 2008) and depressive symptomatology among children and youth (Horowitz and Garber, 2006). In a review that included seven trials targeting adolescents, Cuijpers and colleagues (2008) reported that preventive interventions for adolescents can reduce the incidence of depressive disorders by 23 percent. They caution, however, that since the follow-up period in most studies did not exceed two years, the projects may have delayed onset rather than incidence. Both meta-analyses showed slightly higher effect sizes for selective and indicated interventions, although the number of universal interventions was very small.

Merry and Spence (2007) highlighted several promising approaches, but many of the studies reviewed failed attempts to replicate results in real-world school and primary care settings, had limited follow-up periods, and suffered from methodological flaws. Merry and Spence concluded that there was no clear evidence that depression prevention is effective and implementation of depression prevention programmes would be premature on the available evidence. However, given the positive findings in some studies, and the cost of depressive disorder, Merry and Spence recommended further research and pointed to the importance of addressing wider social issues, as well as improving on the narrower interventions focused on individual protective and risk factors.

As young people with chronic physical and mental health problems are at increased risk of suicide, preventive work with this group is recommended (Barnes et al 2010). *Currently there is no review level evidence for this population group (see Sections on Suicide and Chronic Illness for further information).*

Larun et al (2006) examined the effects of exercise interventions in reducing or preventing anxiety or depression in children and young people up to 20 years of age. The review found a small effect in favour of exercise in reducing depression and anxiety scores in the general population of children and adolescents; however, the small number of studies included and the clinical diversity of participants, interventions and methods of measurement limited the ability to draw conclusions.

2.1.3 Screening and Identification

The American Academy of Pediatrics (Cheung et al 2007) recommended that primary care professionals ask adolescents questions about depression, suicidal thoughts, and other risk factors associated with suicide during routine well-child checks and other visits as needed.

Williams et al (2009) assessed the health effects of routine primary care screening for Major Depressive Disorder (MDD) among children and adolescents ages 7 to 18 years, including evaluating the accuracy of screening tests and the risks and benefits of treatment with psychotherapy and/or SSRIs. They found no trials comparing health outcomes in screened and unscreened populations. In terms of accuracy of screening instruments they located six studies conducted in primary care or school settings reporting sensitivity of 73 to 100 percent and specificity of 65 to 94 percent. Three studies included participants less than 12 years old and yielded sensitivities of 53 to 90 percent and specificities of 49 to 96 percent. Williams et al concluded that although no trials of screening for pediatric MDD were identified, limited available data suggested that primary care feasible screening tools may be accurate in identifying depressed adolescents, and treatment can improve depression outcomes. Treating depressed young people with SSRIs may be associated with a small increased risk of suicidality and therefore should only be considered if judicious clinical monitoring is possible. Specific treatment should be based on the individual's needs and mental health treatment guidelines.

No review has examined the effectiveness of screening among children of parents with depression or mental illness. However, in their broader review Merry and Spence (2006) identified two studies examining the impact of screening among children of parents with depression. For example, Beardslee et al (2003) reported on a promising selective intervention focusing on the offspring of parents with mood disorder. The study compared two active interventions: one in a group lecture format conducted by the principal investigator over two sessions with parents only, and the other a 6–11 session clinician-led psycho-educational intervention with individual families geared at decreasing children's self-blame and encouraging parents to facilitate their child's resilience. They found a number of benefits from both interventions but with a better response from the clinician-facilitated programme. However, as there was no control group, it is not possible to draw conclusions regarding efficacy. In a second study, Clarke et al (2001) focused on young people aged 13–18 years whose parents had been treated for depression and who had elevated symptoms of depression that fell short of depressive disorder. They randomised participants to a group based 'Coping with Stress' programme or to usual care. Follow-up analysis showed a significant reduction in the incidence of major depressive episodes (9.3% in the intervention group vs. 28.8% in the control group at 12 months) with some indication that this effect decreased over the subsequent 12 months. A reduction in depressive symptoms was mostly seen in self-rating scales immediately after intervention and the Hamilton Depression Rating Scales did not differ between groups at any time point.

Merry and Spence (2004) noted that while screening for depression at school may be a practical possibility, identifying young people at risk because of parental depression, as was performed in the second study by Clarke et al., is more problematic. As most adult depression is untreated many of their offspring would be missed. Even identifying adults having treatment and offering intervention to their offspring would tax most health-care delivery services. Attendance and uptake of programmes by the at-risk group would also be problematic.

Children with a long lasting physical illness are twice as likely to suffer from emotional problems or disturbed behaviour. This is especially true of physical illnesses that involve the brain, such as

epilepsy and cerebral palsy (Royal College of Psychiatrists, 2004). No reviews were identified with a specific focus on the effectiveness of screening for this population of children/young people.

O'Connell et al (2009) concluded that primary care settings offer an important opportunity for screening to detect risks and early symptoms of mental, emotional, and behavioural problems among young people. They noted that some groups of young people, such as Looked After and Accommodated young people, young people in juvenile detention facilities, and children of depressed parents, are known to have a greatly elevated risk for poorer mental health outcomes, and recommend that targeted screening or in some cases full assessment of individuals in these groups to identify potential preventive interventions or treatment.

2.1.4 Treatment

There is limited evidence on the treatment and management of child/adolescent mental health problems in primary care (Bower et al, 2001; Merry and Spence 2007; Merry et al 2004; Stein et al 2006; Williams et al 2009). Where evidence has been synthesised the focus is on depression. For example, Stein et al (2006) examined the evidence for the treatment of depression in primary care settings, focusing on evidence concerning psychosocial, educational, and/or supportive intervention strategies. They located 37 studies relevant to treating adolescent depression in primary care settings, of which only 4 studies directly examined the impact of primary care-delivered psychosocial interventions for adolescent depression. Each of these studies was conducted in a "real-world" primary care setting, either in a primary care health clinic or in a school-based general health clinic. The evaluations compared treatment as usual (TAU) with more optimal intervention methods, usually as delivered by primary care staff rather than research staff. Each study evaluated a different intervention. One examined the effectiveness of an IPT modified for depressed adolescents. The second study invited young patients to complete a general health questionnaire and followed up with consultation with the practice nurse. The third evaluated a quality improvement initiative that included teams of experts at each site, as well as care managers who supported primary care teams with patient evaluation, education, evidence-based psychosocial treatment, medication when desired, and linkage with specialty mental health services. Care managers were psychotherapists with masters level or doctoral degrees in mental health or nursing. Care managers followed up with patients over the 6-month intervention period, coordinated care with the primary care team, and delivered the manualised cognitive behavioral therapy (CBT) treatment. The fourth trial evaluated a 5–9 session CBT program with depressed adolescents. These studies suggest that such psychotherapeutic treatment can be effective in the treatment of depression in young people within primary care settings, but given the diversity of the interventions and low number of studies further research is required.

Williams et al (2009) located 10 fair or good-quality RCTs which evaluated the short-term efficacy of psychotherapy among 757 children or adolescents aged 9 to 18 years. Most psychotherapy trials demonstrated an improvement in depression symptoms based on the proportion achieving remission, change in mean depression score, or improved global functioning. Treatment with SSRIs was associated with a small increased risk of suicidality (RD 1 percent, 95 percent CI 0, 2). Suicidality includes suicidal ideation, preparatory acts, or attempts. No suicide deaths have occurred in controlled trials of SSRIs. (See section 2.3 for further information on treatment of depression with adult population)

There are no systematic reviews on primary care treatment and management of other conditions (e.g. PTSD, GAD, Psychosis).

2.1.5 Cost Effectiveness

There are no reviews on the cost effectiveness of primary care led interventions with children/young people.

2.1.6 Standards and Guidelines

The National Service Framework (England), Standard 9 states: "All staff working directly with children and young people should have sufficient knowledge, training and support to promote psychological wellbeing of children, young people and their families."

The NICE (2005) guidelines on the identification, treatment and management of depression in children and young people present recommendations across different levels of services. Recommendations relevant to primary care tend to sit within Tier 1 which includes GPs, paediatricians, health visitors, school nurses, social workers, teachers, juvenile justice workers, voluntary agencies and social services.

Assessment

When assessing a child or young person with depression, healthcare professionals should routinely consider, and record in the patient's notes, potential comorbidities, and the social, educational and family context for the patient and family members, including the quality of interpersonal relationships, both between the patient and other family members and with their friends and peers.

Treatment considerations

- Psychological therapies used in the treatment of children and young people should be provided by therapists who are also trained child and adolescent mental healthcare professionals.
- Comorbid diagnoses and developmental, social and educational problems should be assessed and managed, either in sequence or in parallel, with the treatment for depression. Where appropriate this should be done through consultation and alliance with a wider network of education and social care.
- Attention should be paid to the possible need for parents' own psychiatric problems (particularly depression) to be treated in parallel, if the child or young person's mental health is to improve. If such a need is identified, then a plan for obtaining such treatment should be made, bearing in mind the availability of adult mental health provision and other service

Screening

Healthcare professionals in primary care should be trained to detect symptoms of depression, and to assess children and young people who may be at risk of depression. Training should include the evaluation of recent and past psychosocial risk factors, such as age, gender, family discord, bullying, physical, sexual or emotional abuse, comorbid disorders, including drug and alcohol use, and a history of parental depression; the natural history of single loss events; the importance of multiple risk factors; ethnic and cultural factors; and factors known to be associated with a high risk of depression and other health problems, such as homelessness, refugee status and living in institutional settings.

2.1.7 Gaps in Research

- There is a need for review level evidence on the effectiveness of primary care led preventive work with high risk children and young people (e.g. children with chronic illness).

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2.2 Pregnant Women and New Mothers

Source: 13 Systematic Reviews

Good evidence to support:

- Tools to identify depression (further research required to identify the optimal identification strategy)
- Psychotherapies (CBT) as a treatment for depression

Limited evidence to support:

- Professional support (midwives/health visitors) as a means of preventing postnatal depression
- Psychotherapies (IPT) as treatment for depression (small number of studies reporting beneficial effects).
- Targeted home-visits provided by professionals (health visitor) as a treatment for depression
- Exercise as a treatment for postnatal depression (small number of studies) but best used as adjunct rather than a replacement therapy.

Insufficient evidence to support or reject:

- The implementation of antenatal and postnatal classes, early postpartum follow-up, continuity of care models, psychological debriefing in hospital and interpersonal psychotherapy as an approach to **preventing** mental health problems.
- The use of psycho-social assessments to identify women showing early signs of depression during the antenatal period.

Background

Antenatal and postnatal mental health problems associated with pregnancy, childbirth and the first post-natal year are recognised as a major public health issue, with as many as 15% of childbearing women likely to develop a new episode of major or minor depression in the interval between conception and the first three postpartum months (Gavin 2005 cited by Austin et al 2008). Disorders arising in the perinatal period include minor and major depression, anxiety disorders, post-traumatic stress disorder, bipolar disorder, schizophrenia, and puerperal psychoses. Co-morbid disorders are common in this population and mental illness is often complicated by issues of drug and alcohol abuse and domestic violence (Austin et al 2008).

While a high proportion of women can suffer from transient 'postnatal blues' for the first few days the rate of more serious postnatal depressive (PND) disorders is in the region of 10–15%. These often last several months and have been shown to have a deleterious effect on the mother's capacity to care for her baby. This is marked especially by irritability and lack of responsiveness to the baby's signals for attention. Puerperal psychoses occur in about 2 per 1000 women. There is a raised risk of recurrence with subsequent births.

There is now considerable evidence to show that PND has a substantial impact on the mother and her partner, the family, mother–baby interactions and the longer-term emotional and cognitive development of the baby, especially when depression occurs in the first year of life. Unfortunately, less than 50% of cases of PND are identified by primary healthcare professionals in routine clinical

practice (Hewitt CE, Gilbody SM et al. 2009). The economic costs of post-natal depression are conservatively estimated at £45m for England and Wales. This includes additional health and social care costs, but does not include indirect costs to society, such as lost productivity due to a mother's reduced ability to return to work or to work at full capacity (Knapp and Mc Daid 2011).

The Royal College of Psychiatrists states that professional intervention to prevent mental health problems and psychiatric disorders during the antenatal, perinatal and postnatal stage, calls for an unusually high level of multi-disciplinary cooperation and communication. Midwives, obstetricians, health visitors, GPs, and counsellors from voluntary organisations such as the National Childbirth Trust or HomeStart may all identify early signs of mental ill-health. Usually it will be possible to deal with the underlying problems at primary care level involving these professionals or voluntary workers, but there also needs to be easily accessible back-up from adult and child mental health services as well as social services.

2.2.1 Prevention

A report from The Royal College of Psychiatrists (2002) outlines the importance of regular antenatal examinations with continuity of care to prevent depression during and after pregnancy. Sympathetic handling of anxiety with prompt feedback of information concerning the progress of the pregnancy, especially after the ultrasound investigation or a complication of the pregnancy, will reduce unnecessary worry and the rate of anxiety states.

Only one systematic review (Dennis 2005) has explored the effectiveness of different approaches to prevention with this population. This review found no clear evidence to recommend the implementation of antenatal and postnatal classes, early postpartum follow-up, continuity of care models, psychological debriefing in hospital and interpersonal psychotherapy as an approach to preventing mental health problems. However, the review found emerging evidence to support the provision of professional support (from midwives or health visitors) provided postnatally. Although one well-designed trial suggested that intensive home visits by nurses with at risk mothers were protective during the first six weeks postpartum, the benefit was not maintained to 16 weeks. It is noteworthy that the 16-week assessment coincided with a decrease from weekly to monthly visits. Results from another trial showed that flexible, individualized postpartum care by midwives that incorporated assessment tools also had a preventive effect.

2.2.2 Identification of mental health problems

In their evidence review for the NICE guidance, Dermott et al (2006) advise caution in the use of the term 'postnatal depression' as it can be misused to include any mental illness occurring postnatally and may result in other serious illnesses failing to be identified. Common misconceptions about depression in the postnatal period include the view that symptoms and effects are less severe than those for depression at other times, and that they are entirely due to hormonal changes that will soon pass.

The Diagnostic and Statistical Manual of Mental Disorders criteria specify that for depression in the postnatal period, onset is within 4 weeks after birth. However, there is general agreement that onset can occur any time within the first year (SIGN 2002; Dennis and Hodnett 2007). Specific risk factors for postnatal depression include a family history of depression, a previous depressive episode and a traumatic delivery.

The Edinburgh Postnatal Depression Scale (EPDS) is a brief, reliable screening questionnaire for depressive states in the postnatal period, and its routine use by trained health visitors is

recommended by the Royal College of Psychiatrists (RCP 2002). Although the EPDS has been widely used in a variety of settings and in a number of countries for over 20 years, there is a lack of evidence about the optimum timing and frequency of screening, and about its effectiveness as a first step in improving outcomes for women screened in primary care (Shakespeare 2001). While some have questioned its use in routine clinical care, others have advocated screening as being the best approach to improving detection and treatment of affected women.

Identification of the early signs of puerperal psychosis should lead to immediate psychiatric referral (RCP 2002). A recent systematic review of different methods used to identify PND Hewitt et al. (2009) found 14 identification strategies that have been validated among women during pregnancy or the postnatal period (specific tools: EPDS, Postpartum Depression Screening Scale, Pregnancy Risk Questionnaire, and Predictive Index; generic depression identification strategies: the Beck Depression Inventory (BDI), General Health Questionnaire (GHQ), Hospital Anxiety and Depression Scale, Hopkins Symptom Checklist, Hamilton Rating Scale for Depression (HAMD), Zung's Self-rating Depression Scale, Symptom Checklist-90-R, Raskin, and Montgomery–Asberg Depression Rating Scale).

In a recent Cochrane review Austin et al. (2008) explored the effectiveness of antenatal psychosocial assessments. Psychosocial assessment programmes are designed to identify women who show early symptoms of distress, and/or have psychosocial risk factors known to be associated with clinical onset of mental health problems (including PND). Universal psychosocial assessment is a relatively new and still controversial undertaking within the maternity setting. Austin et al. found only two RCTs evaluating this approach to assessment (one in the maternity setting and the second comparing different providers). While the research findings indicated a trend in a raised level of clinician awareness for “high level” risk factors in postnatal women, Austin et al. were unable to comment on the efficacy of antenatal psychosocial assessment in the public health context.

2.2.4 Non-Pharmacological Treatments

Reviews have examined three different approaches for the prevention/treatment of postnatal depression that can be implemented by the primary health care team. These include:

- **Psychotherapies** - psychosocial and psychological interventions include psychoeducational strategies, cognitive behavioural therapy (CBT), interpersonal psychotherapy (IPT), psychodynamic therapy, and non-directive counselling
- **Supportive Programmes** – delivered via telephone, home or clinic visits, or individual or group sessions in the postpartum period by a health professional or lay person
- **Prescription of exercise**

Psychotherapies

Five reviews have evaluated antenatal and/or postnatal therapist-led psychological interventions for postnatal depression (Austin 2003; Lumley et al., 2004; Matthey 2004; Ogrodniczuk et al., 2003, Dennis and Hodnett, 2007). The most recent review undertaken by Dennis and Hodnett (2007) found that compared to usual care, psychosocial and psychological interventions are effective treatments for postpartum depression. However, the methodological quality of the included studies was not strong. Four trials evaluated the effect of CBT on postpartum depressive symptomatology, and beneficial effects were found. These results are consistent with a previous meta-analysis (Dobson

1989) which found CBT to be an effective treatment option for depression in general and for postnatal depression. However, Dennis and Hodnett note that considerable time, commitment and cost is required from CBT participants and approximately 10% to 40% fail to complete full treatment.

Dennis and Hodnett included one trial which examined the beneficial effects of IPT in decreasing depressive symptomatology, and one trial which evaluated the effect of psychodynamic therapy on the treatment of postpartum depression. Both found beneficial effects. Thus, Dennis and Hodnett concluded that structured CBT, IPT, and psychodynamic therapy hold promise as effective treatment options but due to methodological weaknesses in the included studies definite conclusions cannot be reached for the effectiveness of these different treatment approaches.

Supportive Therapies - Homevisits

Dennis (Dennis 2005) examined the evidence on the effectiveness of psycho-social interventions to prevent and treat postnatal depression. The review found that women who received a preventive intervention were statistically overall just as likely to experience postnatal depression as those who received standard care. However, she found that interventions that target at risk women, are individually based, or initiated postnatally are more likely to be beneficial. In addition there was a positive trend related to continuity of care (one trial) and a clear beneficial effect with home visits provided by a health professional (two trials).

Within the primary care team, health visitors are well placed to identify mothers suffering from postnatal depression and to provide preventative screening and early interventions. Knapp et al (2011) reviewed the evidence from a number of UK trials of interventions provided by health visitors. These studies found that women who received the intervention delivered by health visitors were more likely to recover fully after 3 months. Targeted ante-natal intervention with high-risk groups was shown to reduce the average time mothers spent in a depressed state; and a combination of screening and psychologically informed sessions with health visitors was clinically effective 6 and 12 months after childbirth. The biggest direct costs of the interventions were associated with training (estimated at £1,400 per health visitor), plus the additional time spent by health visitors with mothers for screening and counselling.

In their review of postnatal support on health and wellbeing Shaw et al (2006) found that when women at high risk for postpartum depression or family dysfunction were targeted for intervention, either nurse visits combined with case conferencing or a less intensive peer support programme improved maternal mental health outcomes. .

Exercise

Daley et al. (2009) examined the evidence for effectiveness of exercise as a treatment option for post-natal depression (PND). This review included 5 studies (4 RCTs and 1 quasi-RCT) that looked at the effects of exercise, exercise plus social care, compared to no exercise and usual care, or no exercise and social support. Given the small number of studies with some methodological weaknesses, the findings are limited, but the review authors conclude that there is some support for exercise as a means of treating postnatal depression. However, the authors suggest this approach should be used as an adjunct to usual treatments rather than a replacement.

2.2.5 Cost Effectiveness

In their recent cost effectiveness analysis Paulden et al. (2009) concluded that formal identification methods for postnatal depression do not seem to represent value for money for the NHS. The major

determinant of cost effectiveness seems to be the potential additional costs of managing women incorrectly diagnosed as depressed.

In terms of treatment, Knapp and McDaid (2011). estimate that when quality of life benefits to women are incorporated, the health visiting intervention provides a positive net benefit with an incremental cost-effectiveness ratio (ICER) of around £4,500 per quality-adjusted life year (QALY).

2.2.6 Guidelines

The most recent NICE (2007) guidance on the identification and treatment of PND on antenatal and postnatal depression recommend

- At a woman's first contact with primary care (usually at 4 to 6 weeks and 3 to 4 months), healthcare professionals (including midwives, obstetricians, health visitors and GPs) should ask two questions to identify possible depression (1) During the past month, have you often been bothered by feeling down, depressed or hopeless? (2) During the past month, have you often been bothered by having little interest or pleasure in doing things? A third question should be considered if the woman answers 'yes' to either of the initial questions. (3) Is this something you feel you need or want help with? (the Whooley Depression Screen)
- A woman has the right to be fully informed about all aspects of her treatment and make decisions in partnership with her healthcare professional.
- If a woman is pregnant or breast feeding, her doctor should discuss with her the risks of taking or not taking medication to treat her illness at every stage, to help her come to a decision.
- Women requiring psychological treatment should be seen normally within 1 month of initial assessment, and no longer than 3 months afterwards.
- If a woman does not have a specific mental illness but is feeling down or anxious, she should be offered support from professionals, voluntary organisations or other services to help manage her feelings during pregnancy or after birth.
- Healthcare professionals should assess and address the needs of the woman's partner and family members, including the welfare of the infant and other dependent children and adults.
- There should be clearly specified care pathways so that all primary and secondary healthcare professionals involved in the care of women in the antenatal and postnatal periods are aware how to access appropriate assessment and treatment.
- Managed clinical networks should be established across the whole country, to ensure access to perinatal expertise. This should include a specialist multidisciplinary perinatal service in each locality, which provides direct services, consultation and advice to maternity services, other mental health services and community services and pathways of care for service users.

However, a recent study by Paulden et al. (2009) on the cost effectiveness of screening concluded that routine screening (using the Whooley questions recommended by NICE guidance) for postnatal depression does not seem to represent value for money for the NHS.

2.2.7 Gaps in evidence

Evidence surrounding clinical and cost-effectiveness of methods to identify PND is lacking (Hewitt et al. 2009). Further research should aim to identify the optimal identification strategy, in terms of key psychometric properties for postnatal populations.

There is a need for research evaluating psychosocial interventions which should include self-help groups (i.e., groups not facilitated by a health professional) to extend the testing of lay support models with mild to moderately depressed women (Dennis & Hodnett 2007).

Future evaluations of group interventions should include measures that assess group dynamics, social comparisons, and the provision of peer (mother-to-mother) support to determine the salutary components of support groups (Dennis & Hodnett 2007).

Future research should consider the role the partner plays in the prevention of or recovery from postpartum depression (Dennis & Hodnett 2007).

Important postpartum treatment barriers such as stigma, transport, childcare, and availability of services and high attrition rates found in some groups or clinic-based postpartum depression treatment studies suggest, the need for the evaluation of novel treatment modalities, including those provided via telephone or Internet (Dennis and Hodnett 2007).

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2.3 Adults: Depression and anxiety

Comparisons: Range of psychotherapies to improve outcomes for depression

Studies: 2 Review of Reviews, 10 systematic reviews

Good evidence to support:

- guided-self help has a beneficial effect in people with both mild depression and sub-threshold depression
- the use of CCBT to reduce symptoms of depression especially *Beating the Blues*
- the use of CBT to reduce symptoms

Limited evidence to support:

- psychodynamic psychotherapy but the dataset was weak and focused on short-term outcomes
- problem solving therapy, and this included delivery through the primary care setting
- IPT under certain conditions, eg when combined with drug therapy
- Behavioural activation although there is some disagreement in the literature
- Peer support to improve outcomes
- Screening of high risk populations rather than screening of general practice population
- CCBT and CBT as a cost effective approach

Insufficient evidence to support or reject:

- psychoeducation as an approach for reducing depression; however, it is low cost and some recommend continued use until further research is done
- exercise or physical activity compared to other treatments available
- counselling when compared to usual care or CBT; however, there is potential support emerging from the literature for counselling in primary care to reduce symptoms of depression and mixed anxiety and depression
- couple's therapy as an alternative treatment for depression
- delivery of CBT or IPT by GPs

Depression refers to a range of mental health problems characterised by the absence of a positive affect (a loss of interest and enjoyment in experiences and life), low mood and a range of emotional symptoms (e.g. loss of confidence, lower self-esteem, feelings of helplessness), cognitive (poor concentration, pessimistic, recurring negative thoughts, thoughts of self-harm or suicide), and physical and behavioural symptoms (e.g. tearfulness, irritability, social withdrawal, increased muscle tension, changes in sleep pattern and appetite etc).

However, distinguishing the changes between clinically significant degrees of depression (for example, major depression) and those occurring 'normally' remain problematic. This has led to some writers arguing that it is best to consider the symptoms of depression as occurring on a continuum of severity (Lewinsohn 2000). In parallel, the persistence of symptoms and presence of other symptoms, degree of functionality and social impairment all need to be considered when thinking about depression.

Mild: Depression is described as mild when it has a negative but limited effect on daily life, for example, difficulty concentrating or motivating oneself to do the things normally enjoyed.

Moderate: More of the symptoms are present in moderate depression than in mild depression and they are usually more obvious. There may be a clear reduction in functioning at home and in the workplace.

Severe, sometimes known as clinical or major depression: Severe depression significantly interferes with an individual's ability to cope with their daily life - eating, sleeping and many other everyday activities seem impossible tasks which can be life threatening as a person may be unable to look after themselves. There is also a high risk of suicide. Some people may experience only one episode but several episodes in a lifetime are more common. In some circumstances a person's inability to function can lead to hospitalisation.

Depression can often co-exist with anxiety leading to three possible diagnoses: (1) depression; (2) anxiety; (3) mixed depression and anxiety. In addition, people with severe depression may also develop psychotic symptoms making it difficult to distinguish between depression and other forms of mental illness where psychosis is an important symptom, e.g. schizophrenia.

Estimate prevalence of a depressive episode among 16-74 year olds in the UK (2000) was 2.6%. This rose to 11.4% higher for 'mixed depression and anxiety' (Singleton 2001). Internationally, rates are consistently higher for females compared with males, estimated at between 1.5 and 2.5 times higher in women (Waraich 2004), although most UK survey found this was only marked for a depressive episode in those under 35 years, whereas for mixed anxiety and depression it was across the range (Singleton 2001).

There is no single predictor of depression but various studies have suggested the following factors are important: biochemical, genetics, environment, hormonal status, lifestyle, medication, long-term illness, trauma, socio economic situation (National Collaborating Centre for Mental Health 2010).

It should be noted that depression is also more prominent in patients with chronic illness: coronary heart disease (CHD), diabetes, Parkinson's Disease etc. For example, estimates suggest around 20% of patients with CHD will also suffer from depression (Tylee A. & Dickens C. 2011). Management of depression and treatments in people with chronic illness should take careful account of other health professionals, medication and treatments involved (see section on Patients with Chronic Illness for further information).

As well as the personal and social consequences of depression there are also negative economic effects. Depression is associated with sickness absence and prevents many people seeking, maintaining or returning to employment.

2.3.1 Prevention

The most recent review (van der Waerden et al 2011) narrowed the target population for prevention down to women from low socio economic backgrounds given the presence of a number of risk factors for depression. They identified 14 studies (reported in 18 papers) with the aim of investigating overall efficacy and moderators of interventions targeted at reducing depressive symptoms in this population. It should be noted that women at risk of postnatal depression were included in this review and studies from high-income and lower-income countries were not distinguished between.

Interventions included the offer of PST, CTB, IPT, and more commonly psycho-education and social support either at group or individual level. The authors concluded that mental health benefits could be gained among disadvantaged women through interventions aimed at preventing major depression. In particular, they offered support for targeted psychosocial interventions, and interventions that included both individual and community components.

2.3.2 Identification

Available research indicates that a significant proportion of people with depression are not recognized when they attend primary care (Williams et al. 1995; Mitchell et al. 2009 cited by (National Collaborating Centre for Mental Health 2010). Mitchell and colleagues (2009) suggest that while GPs are able to rule out depression in most people who are not depressed with some accuracy, difficulty arises in diagnosing depression in all true cases. This may be focused on those with mild rather than moderate or severe depression (Kessler et al. 2003 in (National Collaborating Centre for Mental Health 2010)).

Given this evidence, NICE guidelines (National Collaborating Centre for Mental Health 2010) on depression and other mental health issues concluded that screening for depression should only be undertaken for high-risk population rather than general population screening. High-risk groups identified included people with a history of depression, significant physical illness causing disability, or other mental health problems e.g. dementia. This is now part of routine clinical work for GPs.

As part of a stepped-care approach to depression, NICE (2010) recommend two initial screening questions (Whooley questions) for high-risk populations before proceeding to further assessment.

- During the last month, have you often been bothered by feeling down, depressed or hopeless?
- During the last month, have you often been bothered by having little interest or pleasure in doing things?

A 'yes' answer to either question warrants referral for further assessment by a trained mental health professional.

A number of validated tools are available for assessment of depression (e.g. Beck Depression Inventory, Patient Health Questionnaire, General Health Questionnaire, Self-Rated Depression Scale, Centre for Epidemiological Studies Depression Scale). The Geriatric Depression Scale is specifically for older people and there are additional scales devised for people from Black and Ethnic Minorities (e.g. Amritsar Depression Inventory, Caribbean Culture-Specific Screen for emotional distress).

A review of screening tools conducted as part of the large-scale review developed by the NCCMH and the Royal College of Psychiatrists (National Collaborating Centre for Mental Health 2010)

suggested the available data supports ongoing use of the Whooley questions as first stage of case identification. However, given the lack of specificity, people with positive responses would benefit from a more detailed clinical assessment. There was no one tool identified as most effective. Scales varied a great deal in terms of targeted population, number of items and scoring systems. Some scales had better specificity but not as much sensitivity (e.g. Patient Health Questionnaire-9), while others had specific scales for older people (e.g. Geriatric Depression Scale). For specific tools for minority populations, there was insufficient data to draw firm conclusions.

Screening for depression and anxiety

With the introduction, in 1996, of the United Kingdom general practice contract quality and outcomes framework (QOF), there has been an incentive for GPs to obtain measures of the severity of depression at the start of treatment for all diagnosed cases. The intention behind this procedure is to improve the targeting of treatment intervention in keeping with NICE guidelines. The use of screening information has been extensively examined at least in terms of diagnostic accuracy, and for the identification of new cases. Such screening devices could also be used for the purpose of monitoring the course of a condition, and for an examination of the effectiveness of an intervention, or to detect relapse cases. Most such studies have looked at the test sensitivity and specificity. Sensitivity is defined in terms of the proportion of true cases that are correctly identified; while specificity, on the other hand, is viewed as the proportion of true negative cases that are correctly identified.

The use of such screening instruments within a wider context has yet to receive common acceptance among GPs (Dowrick et al 2009). According to Dowrick et al "General Practitioners considered their practical wisdom and clinical judgement ('pronesis') to be more important than objective assessments and were concerned that the assessment reduced the human element of the consultation." Patients, on the other hand, were more positive about the using of screening devices, regarding them as a useful supplement to medical judgement, and as part of a fuller assessment of their problems.

In a BMJ summary article on the NICE guidelines relating to depression and anxiety Pilling et al (2011) provided, for the consideration of GPs, questions that might be asked of patients where these conditions were suspected. In terms of depression they suggested that consideration should be given to the asking the following questions.

During the past month, have you often been bothered by feeling down, depressed, or hopeless?

During the past month have you often been bothered by having little interest or pleasure in doing things?

Where a person responds positively to one or both questions, a further assessment may be put in place; and this may involve the use of more in depth screening devices, such as the patient health questionnaire (PHQ-9) or the hospital anxiety and depression scale (HADS).

In a study, using these questions, the sensitivity was reported as 96% (Arroll et al, 2003). In other words, few true cases of depression were missed. On the other hand, among those not seen as suffering from depression 57% were correctly identified. In a later study Arroll et al (2005) evaluated these questions when presented in a verbal rather than in the written form. Under these circumstances sensitivity was 97%, which is much higher than has frequently been reported (Nease, Malouin., 2003) and with a specificity of 67% both questions were endorsed. The number of false positives for every true positive when only one question was asked was 5 to 1. In this study (Arroll et al, 2003) the chance of missing someone who was depressed would have been 0.3% among those with a negative test. "This is common in screening studies, which are in essence a diagnostic test

performed in a 'low prevalence' setting. This is not a major concern with depression, as further clarification can be obtained by asking more questions (the reference standard) or referral to another health professional."

In a follow, up study Arroll, Goodyear, Smith et al (2005) and colleagues added an additional question "is this something with which you today would like help? "With three possible responses: "no," "yes, but not today," or "yes." A positive response was taken as a "yes" or "yes, but not today". A response to: (a) either of the screening questions (b) the help question alone or (c) either screening question plus the help question was taken as a positive answer. A patient with a negative response to the help question had around a 1% chance of being depressed. Those who screened positive on the help question alone had a sensitivity value of 75% and a specificity of 94%. For the two screening questions alone the sensitivity was 96%, and this was also the value for either screening question plus the help question. The respective specificity values were 78% and 89%. The addition of the help question has led to an improvement in the number of correctly classified negative cases. Based on these and related evidence Arroll et al., (2005) suggested that these questions should be presented to all new patients and to those patients whom the doctor has not seen in the past two years.

Anxiety is frequently comorbid with depression, and consideration to this possibility should be considered (Pilling et al 2011). For the screening of anxiety Pilling et al (2011) suggest the use of the two or seven item general anxiety disorder scale.

Generalized anxiety disorder scales (GAD-2 and GAD-7)

GAD-2 (short screening)

Over the past two weeks how often have you been bothered by the following problems:

1. Feeling nervous, anxious, or on edge?
2. Being unable to stop or control worrying?

GAD-7(seven item)

This comprises the two questions above plus the following questions.

Over the past two weeks, how often have you been bothered by the following problems:

3. Worrying too much about different things?
4. Trouble relaxing?
5. Being so restless that it is hard to sit still?
6. Becoming easily annoyed or irritable?
7. Feeling afraid as if something awful might happen?

Scoring for both scales, for each question: not at all=0; several days=1; more than half the days=2; nearly every day=3

The use of such measures may improve the recognition of mental health disorders. Currently, under a voluntary annual incentive programme among GPs in England, the use of screening devices for depression is encouraged. At present no such incentive scheme is in place for anxiety. Pilling et al., (2011) observe that while the NICE guidelines “provides clear advice about the criteria on which to base referrals for various psychological treatments, but access to such treatment remain limited, and clinicians may be over-using medication, particularly in milder disorders.” This, they go on to point out, indicates the importance of supporting evidence based psychological interventions, such as the Improving Access to Psychological Therapists programme in order to comply with treatments in line with NICE guidelines.

The use and evaluation of such screening instruments however, is not without problems. The issue of calibration across tests can lead to very different classifications. For example Kendrick et al., (2009), in an analysis of medical records within 38 general practice sites in England, examined responses to the 9 item patient health questionnaire (PHQ-9), the hospital anxiety and depression scale and the Beck depression inventory. In the UK GPs are encouraged through an incentive system to obtain screening information before commencing on an intervention for depression. Under these circumstances they noted that 79.1% of patients who had completed screening information using either the PHQ-9 or the HADS received a prescription for an antidepressant, and that 22.8% were referred to a specialist. However, they noted an inconsistency in the classification of moderate and severe depression cases depending on the measure used, suggesting a need for a change in threshold scores.

Thombs et al., (2011) in a systematic review of screening for depression suggest that many of the previous studies which set out to evaluate screening measures for depression have rarely excluded already diagnosed patients. The inclusion of such individuals, within the calculations, is likely to result in inflated accuracy levels when compared to when the instrument would be used to identify new cases in clinical practice. They suggest that this information should be more available in the review literature.

2.3.4 Treatment

A range of therapies are available for treatment of depression, some of which might be offered in secondary rather than primary care. However, the majority of patients with depression are cared for in primary care (NICE 2011). This section focuses on psychosocial therapies and does not include the use of antidepressants which is outside the scope of this evidence review.

These can be divided into low and high intensity treatments and are recommended depending on the severity of the depressive symptoms experienced by patients.

Low-intensity psychological interventions for sub threshold depressive symptoms or mild depression:

- Individual guided self-help
- Psychosocial education
- Computerised cognitive behaviour therapy (CCBT)
- Exercise

- Counselling (may also be used for high intensity interventions)
- Psychodynamic psychotherapy (may also be used for high intensity interventions)
- Problem solving therapy (PST)
- Antidepressants if symptoms persisted for long period of time.

High intensity psychological interventions for people with moderate-to-severe depression and include:

- Group or individual CBT
- IPT
- Behavioural activation (BA)
- Couples therapy
- Antidepressants if a history of moderate or severe depression.

Many of the studies published in the literature considered the effectiveness of treatments rather than the delivery setting so it is difficult to extrapolate findings for effectiveness in primary care. However, depending on the skills mix of staff employed by the practice, interventions and treatments could well be available in primary care settings. Therefore all are reported below. Where reference is made to use in primary care, this is highlighted.

Self-help

Self-help is defined as a self-administered intervention, which makes use of books, other self-help manuals, computerised information etc. derived from an evidence-based intervention. A healthcare professional can introduce, monitor and review outcomes of the treatment.

The NCCMH (2010) examined sixteen trials that compared standard care and wait list controls with:

- individual guided self-help
- self-help with frequent support
- self-help with minimum duration support (no more than 2 hours in total)
- group guided self-help
- self-help with support by mail.

Overall, the evidence indicates that guided self-help has a beneficial effect in people with both mild depression and sub-threshold depression. In particular, the evidence would support individual guided self-help with support of minimum duration when compared with a waiting list control group. Further, SIGN (2010) concluded that self-help was more effective when based on CBT or behavioural principles.

Psychoeducation

Psychoeducation is an approach that uses structured forms of patient information to learn more about mental health. It can take various forms, for example, groups, brochures, books, single consultation.

Donker et al. (2009) reviewed five papers reporting on four studies of psycho-education. They argued that while there is a lack of evidence for the effectiveness of psycho-education, brief passive psychoeducation interventions for depression can reduce symptoms. In this respect, they argue that it should be considered as an alternative treatment given the low cost and immediacy of access. This could be offered through primary care or community models, although the quality of the intervention should be considered before implementation.

CCBT

Increasing use of technology has led to other treatment avenues being explored. One increasingly popular option is computerised cognitive behavioural therapy (CCBT) that is the use of computers to deliver a structured programme of care, based on the principles as treatment provided by a CBT therapist. Mostly CCBT is offered as part of a stepped-care programme and developed to treat a range of depression and / or anxiety disorders.

The NCCMH (2010) and SIGN (2010) included a health technology assessment review which had identified ten studies of CCBT and reported consistent evidence of reduction in depressive symptoms. This was particularly when compared with a non-active control group as no clinical effects were noted when compared with an active control. In particular, *'Beating the Blues'* was identified as effective and cost effective when compared with treatment as usual.

Exercise and depression

The effectiveness of exercise as a method of preventing and treating depression has been the subject of research for many decades. "Exercise on prescription" schemes have become increasingly popular in the UK (Biddle et al., 1994 in NCCMH 2010). Several theories for the effect of exercise on mood have been posed:

- The positive feedback from other people develops an increase sense of self-worth
- Activity may act as a distraction from negative thoughts
- Mastery of a new skill could help boost confidence
- Social contact with others may have a positive effect
- Activity may have physiological effects (e.g. change in endorphin and monoamine levels)

The studies included in reviews incorporate individual and group exercise as well as a range of different aerobic and non-aerobic activities.

NCCMH (2010) included 25 RCTs, which compared physical activity against control groups (no exercise, waiting list, psychotherapy, pharmacotherapy, combination treatments). Overall, physical activity was more effective at reducing depressive symptoms among people with mild and subthreshold depression than a no physical activity control group, and in particular, support for group-based physical activity was reported. However, the effect was reduced at follow up, indicating short-term benefits.

There was insufficient evidence available on physical activity compared with antidepressants, psychosocial or psychological interventions. SIGN (2010) drew similar conclusions on the effects of exercise on depression, but also pointed out the quality of the evidence was mixed and was difficult to condense given the range and intensity of exercise considered through the trials. Other reviews echo the conclusions drawn by NCCMH and SIGN (Lawlor DA 2001; Mead GE, Morley W et al. 2009).

Counselling

Counselling is a process that gives an individual an opportunity to explore and clarify ways of living more resourcefully and with a greater sense of well-being. Overall the evidence for counselling is very limited and complicated by the different therapeutic models adopted in the studies. In studies available to NCCMH (2010), no difference was noted between usual care and usual care with counselling, and there was insufficient evidence to comment on CBT compared with counselling. This was a finding supported by SIGN (2010).

However, Cape et al (2010) in a comparison of treatments for anxiety, depression and mixed anxiety and depression, considered the value of counselling in primary care. From the meta-analysis (n=8) they found small effects for the use of counselling to reduce the symptoms of depression, and mixed anxiety and depression, when used in primary care.

Psychodynamic psychotherapy

This is a model where patients are given an opportunity to explore feelings and conscious and unconscious conflicts originating in the past, with a technical focus of interpreting and working through conflicts.

Ten studies focused on short-term psychodynamic psychotherapy were reported in NCHMM (2010) but the overall dataset was weak and characterized by a number of contradictory findings. There is some limited evidence for the benefits of short-term psychodynamic psychotherapy in populations with sub-threshold symptoms over waiting list or usual care controls, but inconsistent findings when compared with antidepressants.

Problem solving therapy (PST)

PST is a discrete, time-limited, structured psychological intervention focused on learning to cope with specific problem areas, to break them down into manageable tasks, problem solve and develop coping behaviours for the problems. PST is a brief intervention which was specifically developed for use in primary care (Bower 2002).

The NCCMH (2010) only included 2 studies in this area but concluded that while there were no significant differences noted between problem-solving and other therapies, there was insufficient data available to draw robust conclusions on available evidence.

However, SIGN, found evidence that PST was more effective than control groups and cited a well-conducted meta-analysis (Cuijpers et al. 2007 in SIGN 2010) which identified 13 studies for inclusion using placebo and TAU controls. The authors concluded that PST was an effective treatment for depression, it had varying effects on depression but more work is needed to determine optimum effectiveness.

Cape et al. (2010) however considered the effectiveness of PST specifically delivered through *primary care* on anxiety, depression and mixed anxiety and depression. They found some limited support (n=12) for the effect of PST on depression and mixed anxiety and depression. It should be noted that therapies tend to be shorter when delivered through primary compared to secondary care.

One review (Huibers MJ, Beurskens A et al. 2007) reported solely on psychosocial interventions delivered in primary care. Other reviews report on the intervention rather than the delivery venue, but this was a specific parameter for inclusion criteria for the authors. They identified 10 studies and concluded that there was evidence that PST delivered by GPs had an impact on major depression.

However, they also pointed out the limited evidence base and need for more work to be conducted in primary care as the delivery venue.

Cognitive Behavioural Therapies (CBT)

When RCTs were compared by NCCMH (2010) they found evidence to support the effectiveness of CBT in reducing depressive symptoms. In particular, CBT were broadly equivalent to antidepressants, but at longer-term follow up, CBT was more effective, and people who had CBT were less likely to relapse into depression compared with those who had previously been treated with antidepressants.

When compared with other therapies designed for depression (IPT, behavioural activation, psychotherapy), there was insufficient evidence to draw any conclusions about relative efficacy of different treatments. The review also identified three studies that compared CBT in primary care to usual care, but there were no significant differences noted. However, the results are difficult to interpret as patients under GP care may have been using antidepressants.

Cape et al. (2010) considered therapies in primary care and found evidence to support the use of CBT for treatment of anxiety, depression and mixed anxiety and depression. Results indicated CBT was an effective therapy for use with all three groups. However, it was significantly more effective for use with patients suffering from symptoms of anxiety compared with other groups when delivered through primary care.

In their recent systematic review, SIGN (2010) considered CBT as a treatment for depression against usual care or waiting list controls. It was deemed at least as effective as antidepressant medication, and in follow up studies had lasting effects up to two years. Although very limited, there was some support for individual rather than group CBT with fewer symptoms at follow up reported by those in receipt of individual CBT. There was some comparison of CBT against other therapies and it found to be as least as effective as psychodynamic therapy and interpersonal therapy (SIGN 2010).

Moulding et al (2007) examined 8 studies (6 RCTs) of GP provision of psychological therapies. Interestingly 5 of the studies were conducted in the UK. They concluded that there was inconclusive evidence for the effectiveness of CBT delivered by GPs.

Interpersonal therapy

Interpersonal therapy (IPT) is a structured psychological intervention that:

- works to identify effects of interpersonal conflicts, role transition, grief and loss etc and effects on current symptoms; and
- seeks to reduce symptoms by learning to cope or resolve problem areas.

Fourteen studies reported by the NCCMH (2010) comparing IPT to (a) usual GP care (including medication), (b) antidepressants, and (c) IPT plus antidepressants. While the numbers of studies were small, some significant differences in treatment were recorded. There was a difference noted between usual care and IPT, with a reduction in self-reported symptoms of depression for the intervention group. In addition, there was a difference noted in the intervention group who were offered IPT alongside antidepressants compared with those taking antidepressants with no psychological therapy, although no significant differences were noted between those offered IPT alone and those on antidepressants alone. There was also some support for the use of IPT to prevent relapse of depression.

SIGN (2010) considered a systematic review of 9 studies and concluded that IPT was more effective than placebo, and similar in effectiveness to antidepressants and to CBT in patients with depression. There was some limited evidence for CBT as more effective than IPT for patients with severe depression in terms of symptom reduction, although no information was available for longer-term follow up.

The latest systematic review not included in the review of reviews above (Cuijpers 2011) examined 38 studies of IPT against various controls. Their conclusions reflected other findings. IPT has value as a therapy but no significant differences were noted between IPT and other interventions available. While it was less effective than pharmacotherapy, the combination of IPT and drugs appeared to have more impact on relapse prevention than drugs therapy alone.

Moulding et al (2007) examined 8 studies (6 RCTs) of GP provision of psychological therapies. Interestingly five of the studies were conducted in the UK. They concluded that there was inconclusive evidence for the effectiveness of IPT delivered by GPs.

Behavioural activation

Behavioural activation is a discrete, time-limited, structured psychological intervention where therapist and patient:

- Work together to identify effects of behaviour on symptoms, feelings, states and problem areas
- Seek to reduce symptoms and behaviour through behavioural tasks related to avoidance, graded exposure, initiating positively reinforced behaviours.

Six studies compared behavioural activation with placebo, antidepressants, and other psychological interventions. NCCMH (2010) indicated that there was insufficient evidence to draw substantive conclusions with regard to the relative efficacy of behavioural activation.

SIGN (2010) also reviewed the area and concluded that from a review of 16 studies, behavioural activation was effective in reducing depressive symptoms compared with usual care or waiting list control. In comparison to other treatments, specifically cognitive therapy, it was as effective.

Couples therapy

Couples therapy is a time-limited psychological intervention where:

- the intervention aims to help participants understand their interactions on each other
- to change nature of interventions to develop a more supportive and less conflictual relationship.

In total NCCMH (2010) identified six RCT studies that compared couples therapy with waiting list controls, CBT and IPT. There were differences in reported depressive symptoms between those receiving couples therapy and on waiting list. However, there was no difference noted with other therapies or insufficient evidence to draw conclusions.

Again SIGN (2010) reviewed the evidence and identified a further systematic review of marital therapy for depression. A variety of control comparisons (CBT, IPT, drug therapy, combination

therapies, and waiting list) led to no firm conclusion on the effectiveness of couples therapy compared with other treatments.

Peer support

A recent review has considered the impact of peer support on depressive symptoms. This community-based approach is of interest for primary care, given the limited resources available and the growing emphasis on partnership working. Pfeiffer and colleagues (2011) found that results from 9 RCTs indicated that peer support interventions improved depression symptoms more than TAU, and had some limited evidence that effects might be comparable to group CBT. Support for this approach as an effective component for the treatment of depression, particularly given the low-cost of such an approach, was found. As with other treatments, the evidence base was limited and the authors made research recommendations for more work in this area to fully explore the impact of peer support and understand further the mechanisms involved in making it effective.

2.3.5 GPs role

Moulding et al (2007) conducted a broad review of mental health management and treatment focusing on the Australian healthcare system. Nonetheless, they reviewed international literature on the role of GPs in delivering more complex psychological strategies and they felt there was:

- Good evidence that GPs delivery of PST was more effective than usual treatment and equivalent to treatment by antidepressant medication, but unclear to what extent results are applicable to real world settings
- Inconclusive evidence for the effectiveness of GP delivered CBT or IPT.

Cuijpers et al (2009) conducted a meta-analysis of 15 RCT studies in which the use of psychological therapies in primary care was compared to use in other settings. Seven studies included participants who had been referred by the GP, while six identified participants from general screening tools administered in the waiting room. They concluded psychological treatment of depression is effective in primary care patients, and when referred for treatment by their GP (rather than identified through general screening), no lower in effect size than other settings.

2.3.5 Cost effectiveness

There was limited evidence available for cost effectiveness of different interventions for the treatment of depression. One study looked at the cost effectiveness of CCBT packages and they were judged to be cost effective when compared to standard care or TAU in the treatment of subthreshold, and mild to moderate depressive symptoms (Kaltenthaler 2008). One intervention in particular was drawn out as effective and cost effective *Beating the Blues* when compared with TAU.

Some limited evidence was available for CBT but the evidence base is very weak. The one study available indicated that group CBT was more costly than standard clinical treatment, but that for individuals resistant to standard treatment, adjunctive CBT was more costly but more effective than clinical treatment alone (NCCMH 2010).

Schulberg and colleagues (2002) did examine the cost effectiveness of providing psychotherapy in primary care, but at the time there was limited evidence available, and authors were unable to draw any conclusions about cost effectiveness or otherwise of treatment in primary care settings.

There was no review level evidence of cost effectiveness identified for other interventions outlined above.

2.3.6 Guidelines

As stated above, the evidence presented in the literature was focused on the treatment rather than the setting, so it is difficult to extrapolate specifically for primary care. The same is true for two sets of health service guidelines.

There are two recent sets of UK guidance: SIGN (2010) produced guidelines on *Non-pharmaceutical management of depression in adults: A national clinical guideline*, and made a series of recommendations.

They found a body of evidence directly applicable to the target population and a consistency of evidence to support:

- Behavioural activation as a treatment option for patients with depression
- Individual CBT as a treatment option for people with depression
- Interpersonal therapy as a treatment option for people with depression
- Guided self-help based on CBT or behavioural principles as a treatment option
- In the context of self-help, computerised CBT as an option.

There was a slightly weaker but still consistent body of evidence to support:

- Problem solving therapy
- Short term psychodynamic psychotherapy
- Structured exercise.

There was insufficient consistent evidence on which to base a recommendation for counselling as an effective treatment for depression.

NICE (NCCMH, 2010) issued guidelines for practitioners in England and promoted a person centred approach to treatment and care, taking into consideration individual needs and preferences. Delivery of treatment should be agreed with patients and again a recommendation for a stepped care approach to intervention taken.

With regard to specific interventions, like SIGN, NICE recommend the use of the following psychosocial therapies for treatment of patients with subthreshold or mild to moderate depression:

- Individual guided self-help based on the principles of CBT
- Computerized CBT
- Structured group physical activity programme

For people with moderate depression:

- Group-based CBT or individual CBT for patients who decline group-based CBT, or for whom it is not appropriate, or where a group is not available
- Behavioural couples therapy for people who have a regular partner and where the relationship may contribute to the development or maintenance of depression, or where involving the partner is considered to be of potential therapeutic benefit.

They also include a range of recommendations around drug treatments which are outside the scope of this current research in terms of evidence presentation but useful in this section for completeness of information. Antidepressants should not be routinely prescribed for patients with subthreshold symptoms or mild depression in patients with a chronic health problem, as the risk-benefit ratio is poor. Rather consider for patients with:

- Subthreshold depressive symptoms that have continued for a long period of time or persists after other interventions
- Mild depression that complicates care of a physical health problem
- A history of moderate to severe depression.

In terms of delivery of care, a stepped care approach is recommended, but for those with moderate to severe depression and a chronic health problem whose depression has not responded to other treatments, collaborative care should be considered.

2.3.7 Gaps in the Available Evidence

There are a number of research gaps identified through the evidence and apparent from information presented above. Primarily there is a need for more evidence on the efficacy of psychosocial interventions delivered in primary care, or certainly more attention paid to the specific contribution of primary care in the identification and treatment of depression.

While evidence supports some treatments, e.g. CBT, more research is required on others e.g. counselling, PST, couples therapy to determine the impact. In addition, comparative studies are required to identify the strengths and added value of individual treatments when compared to each other.

There is also a need for more information on the cost effectiveness of programmes, delivered through various settings e.g. primary care, mental health workers, secondary care.

Finally, local research documenting current approaches to the treatment of depression adopted by primary care teams across Northern Ireland would be useful in determining the next steps for moving forward in this area.

In the conclusion to their 2006 paper, Gunn et al note: "System level interventions implemented in the USA, with patients willing to take anti-depressant medication, lead to a modest increase in recovery from depression. Whether or not such systems of care are cost-effective in the long-term is unresolved. The relevance of these interventions to countries that have stronger primary care

systems (e.g. UK, Netherlands, Canada, Australia, NZ) is not known. It is inappropriate to assume that these types of interventions can be 'transplanted' to a different health care setting with the same effect as observed in the USA". This study examined 11 clinical trials, ten of which took place in America. They examined these studies using CONSORT reporting criteria, pointing to the many limitations in much of the reported research, and calling for more research to be undertaken outside the USA. This paper points to the paucity of knowledge on which much of our treatment for depression within primary care system is based.

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2.4 General anxiety disorder (GAD)

Comparisons: Psychotherapies to reduce symptoms of GAD

Studies: 1 review of reviews, and 2 systematic reviews

Good evidence to support:

- The use of CBT to reduce symptoms of GAD

Limited evidence to support:

- CCBT although the evidence is very limited

Insufficient evidence to support or reject:

- Self help although the weak evidence that was available indicated some positive outcomes
- Psychosocial education as the evidence base is too small
- Applied relaxation although there is some indication of positive outcomes when compared to non-active control groups
- Psychodynamic therapy as the evidence base is too small
- The role of the GP in delivery of treatments although some emerging support for the use of guided self-help

2.4.1 Background

General Anxiety Disorder (GAD) is one of a range of anxiety disorders including panic disorder, PTSD (although this will be dealt with in a separate chapter), obsessive-compulsive disorder (OCD), specific phobias and acute stress disorder. While they can exist in isolation, they more commonly occur with other anxiety and depressive disorders.

According to Brown and colleagues (2001) the key feature of GAD is excessive anxiety and worry occurring over a 6 month period. Patients find it difficult to control the anxiety and worry and the condition can be accompanied by other symptoms e.g. fatigue, concentration, irritability and disturbed sleep patterns. It is often co-morbid with depression with estimates of 45% suffering both, making accurate diagnosis more difficult (Wittchen 2002).

GAD can also co-occur with physical conditions e.g. arthritis and may mimic some (e.g. hyperthyroidism) and due to the somatic symptoms of anxiety, people presenting in primary care may report somatic or sleep problems rather than psychological symptoms of anxiety (National Collaborating Centre for Mental Health 2011).

A large part of the economic cost of anxiety disorders is attributable to non-medical psychiatric treatment. In addition to increased visits to primary care professionals, people with GAD often have

more consultations with hospital specialists given the somatic symptoms of the illness (Wittchen 2002).

The most recent figures suggest that the estimated proportion of people in England with GAD is 4.4%. As with depression, GAD is more common in women, between 1.5 and 2.5 times higher than in men (McManus 2009).

2.4.2 Prevention

There was no review level evidence identified for the prevention of initial onset of GAD, although there is a growing body of primary studies looking at sub-threshold GAD and early signs of worrying. However, there is some evidence relating to relapse prevention as part of overall assessment of the effectiveness of treatments available to help people with GAD. The emphasis on relapse is important as GAD can be described as a chronic, relapsing condition where recurrence of illness is common, even if the short-term impact of treatment has been positive (National Collaborating Centre for Mental Health 2011).

2.4.3 Identification

According to various writers ((Wittchen 2002), recognition of GAD in primary care is poor resulting in a high proportion of people receiving inappropriate or no treatment. In a recent survey (McManus 2009) only 33% of patients with GAD reported receiving treatment. One reason given is the lack of effective communication skills on the part of some GPs who are unable to pinpoint the nature of the illness (NICE 2011).

Populations at increased risk of developing GAD should be considered for assessment and screening. They include people with:

- Chronic physical health problems
- Other anxiety and depressive disorders
- Tendency for alcohol misuse.

Source: (National Collaborating Centre for Mental Health 2011)

NICE (2011) conducted a systematic review of assessment tools for anxiety symptoms. They concluded that with regard to ultra brief instruments (1-3 items) the GAD-2 was the most diagnostically accurate for use in primary care. GAD-2 consists of the following questions:

- Over the last two weeks, how often have you been bothered by the following problems:
1. Feeling nervous, anxious or on edge?
 2. Not being able to stop or control worrying?

With regard to longer instruments (4-12 items), the GAD -7 had the best diagnostic accuracy in primary care. This instrument included the two questions above, as well as further information on worrying too much about different things, relaxation, restlessness, irritability and fear.

2.4.4 Treatment

In 2011, the NCCMH reviewed evidence around general anxiety disorder (GAD) and mixed disorders, including panic disorders.

Self-help

While non-facilitated self-help was found to have moderate effects on outcomes measured compared to non-active control groups, there was insufficient evidence available on non-guided self-help to draw any conclusions as to the effectiveness or non-effectiveness of this approach. However, the advantage of this approach is the low cost, which was taken into consideration when recommendations were made (see below).

Guided self-help (e.g. computer assisted self-help) again demonstrated moderate effects on outcome measures against waiting list controls. However, the quality was mixed and small, again making it difficult to make firm conclusions without the need for more evidence. One study (Titov 2009) did find significant impact on anxiety, worry and depression when comparing CCBT with a waiting list control group and a significant improvement in remission and response. However, this was based on one trial, which constitutes insufficient evidence for the purposes of this review.

CCBT

The most recent review indicated some evidence favouring CCBT when compared with controls for improving panic severity and depression scores. Initial evidence also shows CCBT is comparable to face-to-face CBT. However, there is no CCBT package currently available in the NHS and the evidence is limited therefore more work is needed to develop the potential of this route for the treatment of anxiety and depression.

Psychosocial education

Again the evidence identified was limited but did note a small effect on outcomes measures when targeted at mixed anxiety populations. However, it is not possible to make further comment as there is a general lack of information regarding this approach.

CBT

As described above, CBT is a working collaboration between therapist and patient to devise a shared plan to achieve specific goals. 21 primary RCTs were examined by NCCMH (2011), which compared CBT to waiting list controls and other therapies (applied relaxation, psychodynamic therapy, non-directive therapy). When compared to non-active waiting list controls, CBT trials showed a statistical significant improvement in non-remission and clinical-rated anxiety scores. Comparisons to other treatments were difficult to comment on, given quality and size of evidence base. No substantive differences could be found between CBT and applied relaxation, although there was some evidence to support CBT over psychodynamic therapies. Some evidence does exist to support CBT over non-directive therapy, but difficulties with the studies make this again difficult to conclude with certainty. More research is required in this area.

Applied relaxation

Applied relaxation was developed for treatment of phobias but has wider application to anxiety disorders. It focuses on applying muscular relaxation in situations that evoke feelings of anxiety and worry. There are various elements to the approach, described in more detail elsewhere, but incorporate progressive muscle relaxation, release only relaxation, cue-controlled relaxation, rapid relaxation, applied relaxation.

NCCMH (2011) report on four trials which compared applied relaxation to waiting list controls and

non-directive therapy. Significant differences were noted between those receiving therapy and non-active groups, but less difference was noted between applied relaxation and non-directive therapy.

Psychodynamic therapy

Again as described above, this approach allows the exploration of feelings and conflicts with a focus on interpretation and working through conflicts. Only two studies were identified through the NCCMH (2011) review comparing this approach to an active comparator and non-directive therapy. No real differences were noted but the evidence base is small and difficult to make recommendations on the basis of two studies.

Role of GP

There is no review level information on the effectiveness of the GP in delivering treatments to reduce the symptoms of GAD. However, Moulding et al (2007) did find some emerging support for the use of guided self-help for anxiety disorders. This should be investigated further.

2.4.5 Cost effectiveness

No reviews were identified that provided cost effectiveness evidence for low or high intensity psychological interventions for people with GAD or mixed anxiety disorders that were considered relevant to the UK healthcare system.

2.4.6 Guidance

NICE guidance on the management and treatment of GAD was issued in 2011 to practitioners in primary, secondary and community care. This guidance recommends early identification of GAD with particular attention to specific groups of higher risk individuals. Following initial detection, treatment should be offered using a stepped care approach in consultation with the patient, taking their views and needs into consideration. Low intensity psychological interventions recommended include:

- Individual non-facilitated self-help
- Individual guided self-help
- Psycho-educational groups

For those where symptoms do not respond to low intensity interventions, practitioners should consider offering high intensity psychological interventions or drug treatment. High intensity interventions recommended include:

- CBT
- Applied relaxation therapy.

Although this review does not cover drug treatments, it is worth pointing out that NICE specifically states that primary care practitioners should not offer antipsychotic drugs for the treatment of GAD.

If no improvements or response to treatment is noted at this stage, practitioners are advised to consider referral to specialist services, particularly if the person is at risk of self-harm, or suicide, or have other comorbid problems.

2.4.7 Support for families and carers

There is guidance (NCCMH 2011) rather than evidence for supporting families and carers involved in supporting a person with GAD. Practitioners are asked to consider:

- Their mental and physical health needs
- Providing information and signposting to other services
- Offering written and verbal information on management of GAD including their role in supporting the patient
- Providing information about crisis management and steps to get help.

2.4.8 Gaps in evidence

One criticism is the lack of early identification within primary care, possibly linked to the skills of practitioners. More information is needed on the available skills in primary care teams, and appropriate tools for use to improve detection and improvement treatment of GAD within primary care settings.

More evidence on the most appropriate model of care for GAD is recommended. It is complicated by the co- presentation of physical symptoms and often co-morbidity with physical and mental health problems. However, evidence currently is US-based and difficult to translate to a UK situation.

There is an acute need for more evidence on the relevant impact of low intensity psychosocial therapies on GAD and mixed anxiety disorders, particularly focusing on primary care settings; and in particular to explore the further potential of CCBT which has some supporting but limited evidence.

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2.5 Psychosis and Schizophrenia

Interventions at Early Psychosis

Comparisons: Standard Care

Papers: 2 systematic reviews

Good evidence to support:

- Family Intervention

Limited evidence to support:

- Early intervention services compared to standard care (4 RCTs, n=800)
- Family intervention (3 RCTs, n=288)
- CBT for some outcomes only (4 RCTs, n=620)

Insufficient evidence to support or reject:

- Cost effectiveness of early intervention
- Effectiveness of primary care in management of psychosis

2.5.1 Background

Schizophrenia typically begins in young adulthood and may lead to disability that lasts a lifetime. The onset of psychosis is usually preceded by a period of non- psychotic symptoms, known as prodromal symptoms. The symptoms of full-blown schizophrenia include hallucinations, delusions, disordered thinking, and emotional withdrawal. There is some evidence that a delay in receiving adequate treatment reduces the chances or the extent of recovery. The first few years after onset can be particularly upsetting and chaotic, and there is a higher risk of suicide (Hawton et al. 2005).

It is estimated that each year in England 15,763 people exhibit early (prodromal) symptoms before the onset of full psychosis (McCrone et al 2009 in Knapp and McDaid 2011). Progression of the disease is associated with higher costs to public services (including health, social care, and criminal justice), lost employment, and greatly diminished quality of life for the patient and their family. In 2008 analysis estimated the average annual direct costs per average patient with schizophrenia at £10,605, and total costs (including lost employment) at £19,078. The corresponding costs for bipolar disorder and related conditions were £1,424 and £4,568. Total costs for these conditions combined were estimated at £3.9bn for services and £9.2bn for services and lost employment.

Schizophrenia is commonly associated with a number of other conditions, such as depression, anxiety, post-traumatic stress disorder, personality disorder and substance misuse (NICE 2009).

2.5.2 Detection of Early Symptoms of Psychosis

There are no systematic reviews on the effectiveness of early detection of early symptoms within primary care.

Early intervention services aim to identify the early symptoms of psychosis, reduce the risk of transition to full psychosis and shorten the duration of untreated psychosis for those who do develop it. Such services include the provision of sessions of cognitive behavioural therapy, psychotropic medication, and contact with psychiatrists; this contrasts with usual treatment which typically consists of GP and counsellor contacts.

Early intervention in schizophrenia has two elements that are distinct from standard care: early detection and phase-specific treatment. Both elements may be offered as supplements to standard care, or may be provided through a specialised early intervention team. Early intervention is now well established as a therapeutic approach in America, Europe and Australasia, but it is unclear how far early detection, phase-specific treatments, and the use of early intervention teams are underpinned by evidence of effectiveness.

In broad terms, early intervention has two objectives: the first is to prevent the onset of schizophrenia in people with prodromal symptoms; the second is to provide effective treatment to people in the early stages of schizophrenia, with the goal of reducing the ultimate severity of the illness.

Two reviews have examined the effectiveness of early intervention services. In the most recent review of early intervention services Bird et al (2010) identified 4 RCTs which showed benefits including reduced likelihood of relapse compared with standard care, reduced hospital admissions, and reduced psychosis symptoms. These effects were observable by the end of treatment.

In an earlier review (Marshall and Rathbone, 2006) to evaluate the effects of (a) early detection (b) phase-specific treatments and (c) specialised early intervention teams in the treatment of people with prodromal symptoms or first episode psychosis identified seven studies, most of which were underpowered, thus providing insufficient data to draw any definitive conclusions.

Bird et al (2010) also examined the evidence of the effectiveness of CBT compared to standard care. They identified 4 RCTs (n=620). CBT interventions found a reduction in positive symptoms compared with usual care after 2-year post-treatment follow-up. Negative symptoms also showed an improvement at 2-year follow-up only, but there was no difference in rates of hospital admission or relapse between patients undergoing CBT and those receiving usual care. It is interesting that the benefits of CBT were not immediately apparent but became manifest over a 2-year follow-up period.

There is no review level evidence available on the cost-effectiveness of EI. A number of primary studies exist. For example an Australian study (Mihalopoulos et al 2009) concluded that early intervention services can deliver a higher recovery rate at one-third the cost of standard public mental health services (but further research is required).

In the UK McCrone et al (2011) summarise the available cost effectiveness evidence on early detection. They found some evidence that such services can reduce the rate of transition to full psychosis (Valmaggia et al. 2009). Using data from the Lambeth Early Onset service McCrone et al (2010) prepared a model to estimate the cost effectiveness of EI. They estimated that EI results in

- substantially reduced costs of lost employment (based on estimated employment rates of 36% and 27% for EI and standard care). Using a minimum wage rate the average savings are £2087 in addition to healthcare savings.
- Reduced costs based on suicide (assumed to occur for 1.3% of EI patients and 4% of standard care patients). The estimated annual saving in suicide costs due to EI is £957 per person.
- The long-term economic impact of EI depends on what happens to readmission rates after a patient is discharged from the EI team. If the readmission rates remain constant, then the expected savings over eight years are £36,632. If rates converge immediately after EI team discharge the figure is £17,427. Finally, if the rates converge gradually the expected savings are £27,029.

However, early detection services for psychosis are not routinely provided and provision is currently very limited (McCrone et al in Knapp and McDaid, 2011).

2.5.3 Management of Schizophrenia within Primary Care

There are no systematic reviews on the effectiveness of PC in management and treatment of schizophrenia.

Much of the treatment of schizophrenia occurs within secondary care. Many patients present in the first instance to a primary care provider. Within the primary care system, a patient with suspected schizophrenia is generally referred for assessment by a specialist mental health service. The decision to refer for same-day assessment or urgent assessment within a few days is determined by the risk of harm to themselves and to other people.

For people judged not to be at immediate risk of harm to themselves or others, the GP can urgently refer for specialist assessment to:

- The early intervention service if available, *or*
- The community mental health service (CMHS) if an early intervention service is not available. In many areas, the CMHS is the gateway to the more specialized teams, including crisis resolution or home treatment teams (the only team available out of hours) and acute day hospital.

For people with schizophrenia who relapse:

GPs are advised to manage the person according to their care plan if this is available. If a care plan is not available, refer the person to specialist mental health services. The urgency of this referral depends on an assessment of the risk that the person will harm themselves or others.

Good practice suggests that primary care should arrange a routine annual review of all people with schizophrenia. This should include a review of the person's

- Continuity of primary and secondary care services.
- Physical health.
- Mental health.
- Social needs.

The NICE (2009) guidelines recommend that GPs and other primary healthcare professionals should monitor the physical health of people with schizophrenia at least once a year.

2.5.4 Support for Families and Carers

Carers, relatives and friends of people with schizophrenia are important both in the process of assessment and engagement, and in the long-term successful delivery of effective treatments (NICE 2009). Family intervention has a well-established evidence base from the last 30 years, and proven efficacy in reducing relapse rates in schizophrenia. Bird et al (2010) found 4 RCTS of family intervention for the early identification of symptoms. The intervention reduced risk of relapse and hospital admission combined, compared with standard care; but this effect was not observed with relapse and hospital admission as single end points.

People with schizophrenia are more likely to experience a relapse within family groups when there are high levels of expressed emotion (hostility, criticism or over involvement) within the family, compared to families who tend to be less expressive of their emotions (Pharoah et al 2010). There are several psychosocial interventions available involving education, support and management to reduce expressed emotion within families. In a recent Cochrane Review Pharoah et al compared the effects of family psychosocial interventions in community settings for the care of people with schizophrenia or schizophrenia-like illnesses. They concluded that family intervention may reduce the number of relapse events and hospitalization and also seems to improve general social impairment and the levels of expressed emotion within the family. They did not find data to suggest that family intervention either prevents or promotes suicide. The authors note that the treatment effects of these trials may be overestimated due to the poor methodological quality and further data from more robust studies would provide greater confidence in these findings.

2.5.6 Cost Effectiveness

McCrone et al (2011) investigated whether investments in **specialist** early detection services can be cost-saving in terms of health care services, criminal justice services, suicide, homicide and lost employment for a one-year cohort of patients. The model is based on the early detection service that is provided by Outreach and Support in South London (OASIS). The target group is young people aged 15 to 35 years old in the general population with prodromal symptoms of psychosis. The model assumes that transition from prodromal symptoms to full psychosis occurs for 20% of patients compared to 35% under standard care. McCrone et al estimate that compared to standard care, early detection services for patients with prodromal symptoms of schizophrenia are cost-saving overall, and also cost-saving from the perspective of the NHS from year 2.

2.4.7 Guidance

The NICE (2009) guidelines for the management of schizophrenia in primary care recommend that GPs take time to build supportive and empathic relationships as an essential part of care.

Assessment

NICE (2009) recommends that people with schizophrenia receive a comprehensive multidisciplinary assessment, including a psychiatric, psychological and physical health assessment. The assessment should also address the following: accommodation, culture and ethnicity, economic status, occupation and education (including employment and functional activity), prescribed and non-

prescribed drug history, quality of life, responsibility for children, risk of harm to self and others, sexual health and social networks.

Treatment within Primary Care

In the care of people with schizophrenia NICE (2009) recommends that GPs

- Routinely monitor for other coexisting conditions, including depression and anxiety, particularly in the early phases of treatment.
- Should monitor the physical health of people with schizophrenia at least once a year. Primary care should develop and use practice case registers to monitor the physical and mental health of people with schizophrenia in primary care.
- Offer cognitive behavioural therapy (CBT) to all people with schizophrenia. This can be started either during the acute phase or later, including in inpatient settings.
- Should consider offering arts therapies to all people with schizophrenia, particularly for the alleviation of negative symptoms. This can be started either during the acute phase or later, including in inpatient settings.
- Should not routinely offer counselling and supportive psychotherapy (as specific interventions) to people with schizophrenia. However, these should take service user preferences into account, especially if other more efficacious psychological treatments, such as CBT, family intervention and arts therapies, are not available locally.
- Do not routinely offer social skills training (as a specific intervention) to people with schizophrenia.

When a person with an established diagnosis of schizophrenia presents with a suspected relapse, primary healthcare professionals should refer to the crisis section of the care plan. Consider referral to the key clinician or care coordinator identified in the crisis plan.

For a person with schizophrenia being cared for in primary care, consider referral to secondary care again if there is: poor response to treatment, non-adherence to medication, intolerable side effects from medication, comorbid substance misuse or risk to self or others.

When re-referring people with schizophrenia to mental health services, take account of service user and carer requests, especially for: review of the side effects of existing treatments and psychological treatments or other interventions.

Support for Carers

When working with carers of people with schizophrenia NICE (2009) recommend that GPs:

- Offer family intervention to all families of people with schizophrenia who live with or are in close contact with the service user. This can be started either during the acute phase or later, including in inpatient settings
- provide written and verbal information on schizophrenia and its management, including how families and carers can help through all phases of treatment
- offer them a carer's assessment

- provide information about local carer and family support groups and voluntary organisations, and help carers to access these
- negotiate confidentiality and information sharing between the service user and their carers, if appropriate
- assess the needs of any children in the family, including young carers

2.4.8 Research Gaps

Further evidence is needed on the impact of different models of early detection services and the role of primary care in the management of psychosis and schizophrenia.

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2.5 Post-traumatic stress disorder

Comparisons: Psychotherapies to reduce symptoms of PTSD

Studies: 7 systematic reviews

Good evidence to support:

- Psychotherapies to reduce the symptoms of PTSD in particular CBT and EMDR

Limited evidence to support:

- Stress management as an approach although evidence is conflicting

Insufficient evidence to support or reject:

- To support combined pharmacotherapy and psychological therapies
- Group CBT
- One approach to therapy over another

2.5.1 Background

PTSD usually develops after a stressful event or situation of a threatening or catastrophic nature, which is likely to cause pervasive distress in anyone. It is not usually associated with more common upsetting events (e.g. divorce, loss of job etc). PTSD can affect all ages and around 25-30% of people who have experienced a traumatic event may go on to develop PTSD.

Symptoms of PTSD concentrate on re-experiencing aspects of the event in distressing way e.g. flashbacks, nightmares, repetitive images, other sensory impressions of the event. Other symptoms experienced include hyperarousal and emotional numbing. According to NICE (2005), people with PTSD often try to push memories of the event out of their mind. Alternatively some might obsess about questions that prevent them from coming to terms with the event e.g. why did it happen to them etc.

Symptoms may develop following the event however, for some, the symptoms may be delayed and sufferers may not seek help for symptoms until years after the event. In addition, assessment can face significant challenges as many avoid talking about the problems even when presenting with associated complaints.

The Northern Ireland Study of Health and Stress, a large epidemiological study of mental health in Northern Ireland, revealed that 8.5% of the population met prescribed criteria for lifetime PTSD, the highest among comparable international estimates (Ferry et al. 2008). Further, individuals with PTSD were significantly more likely to have a range of co-morbid mental health disorders, highlighting the extent of the public health burden associated with psychological trauma.

Findings from international studies indicate:

- The majority of people will experience at least one traumatic event in their lifetime
- Intentional acts of violence are more likely to result in PTSD than accidents or disasters
- Men tend to experience more traumatic events than women, but the events have a higher impact on women
- Women are more likely to develop PTSD than men.

Source: NCCMH 2005

2.5.2 Identification

Treatment of PTSD can only take place once the disorder is identified. Certain groups of people are more at risk of PTSD:

- Victims of violent crime
- Members of the armed forces, emergency services and prison service
- Victims of war, terrorism and refugees
- Survivors of accidents and disasters
- Women following traumatic childbirth
- Individuals diagnosed with life-threatening illness.

Various well-validated assessment tools exist for screening purposes and one review was identified to explore their relative effectiveness (Brewin 2005). The author identified 13 available tools, and concluded that the questionnaires with greatest potential for use in primary care were the Trauma Screening Questionnaire (10 items) and the SPAN (4 items). Since the publication of this review, the PTSD-8 has been validated and has potential for use in primary care. Regardless of the tool, the NCCMH (2005) advocate their use by trained professionals in the broader context of physical, psychological, and social needs as well as a risk assessment.

For the vast majority of people, opportunities for recognition come as part of contact with primary care (NICE 2005). The challenge for practitioners is that PTSD may present with a range of symptoms. In adults, this is more commonly in the form of vivid, distressing memories or flashback. However, symptoms can include depression, drug or alcohol misuse, anger etc. so primary care practitioners need to handle with care and ask questions in a sensitive manner. NICE (2005) recommend that primary care practitioners should be aware of traumas associated with PTSD e.g. assault, road traffic accidents, domestic violence etc. For repeat attendees with unexplained physical symptoms, questions about recent or ongoing trauma should be considered.

2.5.3 Prevention

One review of prevention was identified. Rose et al. (2002) conducted a review of 15 trials to consider the preventative impact of individual debriefing sessions following traumatic events. They found no evidence to support the effectiveness of this approach in prevention onset of PTSD. They concluded compulsory debriefing of victims should cease and a more appropriate response would be 'screen and treat'.

2.5.4 Treatment

Treatment for PTSD includes:

- Debriefing
- CBT
- Eye movement desensitization and reprocessing (EMDR)
- Non-directive counselling
- Psychodynamic therapy
- Exposure
- Stress inoculation therapy (SIT)
- Hypnotherapy.

Seven reviews were identified that looked at effectiveness of treatments for PTSD. There is support that interventions provide improvement in symptoms for sufferers of PTSD (Benish et al. 2008; Bradley et al. 2005) although a lack of evidence to support combined pharmacotherapy and psychological therapies (Hetrick et al. 2010).

However, there is no review of treatment of PTSD in specifically primary care settings. The reviews do not specify setting but rather focus on treatment of condition.

Comparison of treatments

Benish et al. (2008) reviewed 15 studies of direct comparisons between different approaches to treating PTSD. Treatments included hypnotherapy, psychodynamic therapy, CBT, EMDR, stress inoculation and exposure. They found efficacy of psychotherapy in reducing symptoms of PTSD but no differences between approaches. Mendes et al. (2008) drew the same conclusions having compared CBT with other therapies. No implications for primary care were noted.

Bisson et al. (2007) compared findings from 33 studies and found support for individual and group trauma-focused CBT, EMDR and stress management compared with TAU or waiting list controls. They did identify some evidence to suggest trauma-focused CBT and EMDR was more effective than stress management although there was considerable heterogeneity between the comparisons with potential publication bias indicating caution when interpreting results.

Bradley and colleagues (2005) reviewed 26 control studies of different approaches including exposure, CBT, EMDR and combination treatments. While the authors noted limitations to the studies in terms of quality and internal validity, they found evidence to support the use of psychotherapies in reducing the symptoms of PTSD. No implications for primary care were noted.

CBT

CBT has been described above in detail but specifically for sufferers of PTSD there are three options for CBT therapies including trauma-focused CBT, stress management, group CBT.

Kroner et al. (2008) compared 5 RCTS of trauma-focused CBT over supportive counselling and found evidence to suggest that CBT was more effective than counselling for sufferers of PTSD. NCCMH (2005) report evidence supporting trauma-focused CBT over waiting list controls on severity of PTSD

self reported and clinician reported symptoms, and some evidence of impact on depression and anxiety symptoms.

The available evidence was too limited to support or reject stress management or group CBT as a suitable therapy for PTSD (NCCMH 2005).

EMDR

The evidence based for EMDR points to some evidence for reduction in symptoms by patients who had undergone EMDR compared with waiting list controls, and some limited evidence of positive impact on associated depression and anxiety symptoms (NCCMH 2005).

There is little evidence comparing different therapies, and not enough to draw robust conclusions about relative effectiveness.

2.5.5 Cost effectiveness

There was some limited cost effectiveness evidence to support CBT at 12 weeks although recognition that faster recoveries by earlier treatment may have intangible benefits for those suffering initial PTSD symptoms and prevent the condition becoming chronic. More information is needed on early vs. late interventions studies before a full assessment can be made (NCCMH 2005).

2.5.6 Guidance

NICE (2005) recommends that a course of trauma-focused CBT or EMDR should be offered to those with severe PTSD symptoms in the first month after the event. However, these would be operated through an outpatients' clinic.

In primary care, sufferers presenting here should be managed by GPs who should take responsibility for initial assessment and co-ordination of care. In the processes, patient preferences should be an important determinant of treatment choice and sufficient information given to make an informed choice.

Primary care teams should be aware of the traumas associated with the development of PTSD in order to recognise presentation in primary care. This includes probing for patients with unexplained physical symptoms who are repeat attendees. Primary care teams should consider asking specific questions about re-experiencing, or hyperarousal as a means of determining diagnosis.

Support for families and carers

NICE (2005) suggest that families and carers have a central role in supporting people with PTSD but primary care practitioners should be aware that families may also need support themselves, and this should be provided if necessary. Families should also be provided with information on the condition and how to cope in a crisis situation, local self-help and support groups and encouragement to participate in groups if appropriate.

2.5.7 Research Gaps

Currently treatment focuses on working with professionals and there is little information available on self-help or computerized approaches to treatment of PTSD. This could be one area for further exploration with a particular focus on delivery through primary care.

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2.8. Older Adults

Comparisons: treatments specifically aimed at reducing mental health problems in older people

Studies: 5 systematic reviews

Good evidence to support:

- the use of CBT to reduce symptoms of depression specifically in older people although there were some doubts over efficacy for patients who had suffered from a stroke

Limited evidence to support:

- for PST as an effective treatment for depressive symptoms in older people although the evidence has limitations;
- psychodynamic therapy and reminiscence as techniques for work with older people;
- longer term rather than brief or short term interventions;
- home-based interventions.

Insufficient evidence to support or reject:

- interpersonal therapy for use with older people;
- exercise for use with older people but the evidence was conflicting;
- the role of primary care in service delivery.

2.8.1 Background

Ageing is also associated with an increased prevalence of mental disorders. Most older people have good mental health, but older people are more likely to experience events that affect emotional well-being, such as bereavement or disability. The Department of Health in England estimates that approximately 40% of older people seeing their GP, 50% of older people in general hospitals, and 60% of care home residents, have a mental health problem. (National Institute for Mental Health in England 2005). Common mental disorders are strongly associated with physical disability; over a third (37%) of people interviewed in this age group had difficulty with one or more common daily tasks, such as personal care, housework and getting out and about (Evans et al 2003b). Other major risk factors include disability, cognitive deficits, loss of social networks and low social support, and negative life events (Elliott 2007).

Depression is the most common psychiatric disorder in later life. A recent large population study suggested prevalence in older people stood at 8.7% and rose to 9.7%, and it is comorbid with dementia (Iliffe 2007). Individuals living in care homes represent a particularly vulnerable group in terms of depression. Prevalence estimates vary considerably depending on the assessment methodology used and the definition of depression, but it is estimated to affect up to 40% of older people who live in care homes (Mozley et al., 2004.). Co-morbidity of depression with other diseases is also common and medical illness increases the risk of suicide in among older people (Ell 2007). Evidence supports the need to address mental health problems, especially depression, in the elderly. Some authors suggest routine patient education, screening and evaluation in older adults with risk factors to help with early identification (Ell 2007).

Iliffe (2007) writes that the role of primary care in identification, treatment and management of mental health problems in older people is an important role that is growing with the evidence for effectiveness of complex interventions.

2.8.1 Identification

Ell (2007) and earlier Ahururu-Driscoll and colleagues (2004) argued that there was poor recognition of psychiatric illness, specifically depression, in older people by GPs and health care workers generally, potentially linked to the following factors:

- denial of problems and symptoms by older person;
- insidious nature of onset can impede recognition;
- co-morbidity;
- tolerance of unusual behaviours in remote and rural areas;
- acceptance of cognitive decline in older people;
- lack of trained staff with expertise in early detection and prevention of mental health problems.

Others argue that even if depression is recognized, it is often left untreated with only a small minority receiving treatment or referral (Iliffe 2007).

2.8.3 Management

Ahururu-Driscoll et al. (2004) in their review concluded that there was limited material available for primary care based geriatric services making it difficult to draw strong conclusions about effectiveness. Bruce et al. (2005) reviewed community and home-based approaches to the management of mental health disorders in older people. They included 12 studies in the review that included interventions like PST delivered by social workers, development of shared protocol of care, shared care treatment led by primary care, nurse led management, multidisciplinary outreach team managed by case manager, and training for care-givers. There was considerable variation in the approach to management in the home or community and in some studies primary care took the lead; in other studies, other professionals took the lead. They concluded that despite the heterogeneity, there was some support for home-based mental health services for older adults who have limited access to traditional practice-based models. Some of the more rigorous studies were associated with a reduction in psychiatric symptoms but more work is needed to standardise approaches to measure mental health outcomes and characterise the intervention.

While treatments for depression are the same as for general population adults, a number of reviews were identified that specifically focused on older people.

Psychotherapy Treatments

Despite a number of reviews supporting psychotherapy for the treatment of depression however, there are few that examine efficacy in older people specifically.

CBT

A review by Wilson et al. (2008) identified five trials with older people and found evidence to support CBT over waiting list controls. Frazer and colleagues (2005) looked at a range of approaches to treating depression in older people. They identified 5 RCTs of CBT with older people and, reflecting findings above, found there were benefits in terms of reducing depressive symptoms. However, they found one study to suggest that people suffering from a stroke did not benefit from CBT.

PST

The review by Frazer et al. (2005) also identified four RCTs looking at the impact of PST and while three of the four found a positive change in depressive symptoms in older people, one of the studies did not. Nonetheless, authors concluded that there was some support for the use of PST with older people.

Other psychotherapies

In terms of other therapies, Frazer et al. (2005) found support for psychodynamic psychotherapy, reminiscence and life review (techniques to remember past events in life), but insufficient evidence to comment on IPT as an effective therapy for older people.

Exercise

Frazer et al. (2005) identified tentative support for exercise as a treatment for depression in older people. However, the Task Force on Community Preventive Services¹ found insufficient evidence available to determine the effectiveness of exercise interventions on reducing depression. It should be noted the studies reviewed did find improved scores on depression symptom scales, but none of the studies reported results for depressed subjects so it is unclear whether or not clinically significant changes could be expected in these populations.

2.8.4 The Role of Primary Care

Most recently, Kang-Yi and Gellis (2010) examined the heart disease management for older people literature with a specific focus on depression. They argue that many of the key features of heart disease management interventions overlap with interventions aimed at people with sub-threshold or mild to moderate depression (e.g. exercise programmes). They examined both home-based and outpatient interventions covering a range of formats (e.g. education, exercise, counselling, tele-healthcare). The authors concluded that there was support for a reduction in depressive symptoms when the interventions were longer-term rather than brief or short-term, included physical activity and were home-based interventions. The role of primary care was not extrapolated in this work but it is assumed they would have a key role to play in management of both heart disease and depression (see section on Chronic Illness for further information).

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3. Alcohol Dependency and Mental Health

Note

As the purpose of this rapid review is to describe the effectiveness of mental health interventions delivered within primary care settings we have not conducted searches for reviews on the effectiveness of different treatments for alcohol or drug dependency. Given the short timeframe available for the rapid review we have focused attention on the review level evidence on approaches available to primary care staff to identify mental health needs of patients presenting with alcohol/drug problems. For much of this section we rely on the most recent review level evidence (NCCMH 2011) and national guidelines.

3.1 Background

Alcohol dependence and harmful alcohol use are recognised as mental health disorders by the World Health Organization (WHO, 1992).

Evidence from the recent NISHS estimates that 13% of the Northern Ireland population met the criteria for alcohol abuse or dependence at some point in their life (Bunting et al, pending) while almost 3% met the criteria in that last 12-months (Bunting et al, under review). Alcohol use is strongly associated with a wide range of mental health problems (National Co-ordinating Centre for Mental Health 2011). Depression, anxiety, drug misuse, nicotine dependence, and self-harm are commonly associated with excessive alcohol consumption. Ferry et al (2008) for example estimate that 23% of individuals with lifetime major depressive disorder also meet the criteria for alcohol abuse. Up to 41% of suicides are attributable to alcohol and 23% of people who engage in deliberate self-harm are alcohol dependent (Merrill et al., 1992; Demirbas et al., 2003 cited by NCMH 2011).

Psychiatric co-morbidity is common among problem drinkers – up to ten per cent for severe mental illnesses, up to 50 per cent for personality disorders and up to 80 per cent for neurotic disorders. It is likely to make treatment more challenging and of longer duration (Raistrick et al 2006). Mental health problems which co-exist with alcohol misuse can have a significant impact on the treatment and long-term outcome of the alcohol related problem.

Poor mental health and social problems are associated with binge drinking and prolonged and excessive drinking. Both forms of alcohol misuse are associated with enhanced risk of physical harm (alcohol poisoning, liver disease, cancer, stroke, premature mortality, accidental injury) which may impact on mental health and social harm (physical and sexual assault, including intimate partner violence, and anti-social behaviour) (Cabinet Office, 2004 cited by Friedli et al 2008).

A key debate concerns the extent to which alcohol misuse precedes, or is a consequence of, mental health problems such as anxiety and depression. In their review of the evidence on mental health improvement Friedli et al (2008) conclude that the evidence is mixed and equivocal on the relationship between alcohol use and poor mental health and it is unclear whether a reduction in alcohol consumption at a population level would reduce incidence of depression and anxiety. They conclude that there is a clear relationship between alcohol abuse and social functioning and factors that influence mental health e.g. violence, intimate partner violence and sexual abuse of children.

The UK Cabinet Office recently estimated that the cost of alcohol to society was £25.1 billion per annum (Department of Health, 2007). A report by the DoH estimated an annual cost of £2.7 billion attributable to alcohol harm to the NHS in England (Department of Health, 2008a cited by NCHM 2011).

In Northern Ireland the cost to society of alcohol misuse is estimated to be £679.8million within a range of £500.8million and £884.4million (DHSSPSNI 2010). In 2010 5,846 people were treated for addiction. Over half (57%) were being treated for alcohol problems while a fifth (22%) were treated for drug misuse and a fifth (21%) were treated for both alcohol and drug use (Blee 2011).

3.2 Prevention

Primary care services in Northern Ireland face a particular challenge in the prevention and treatment of alcohol abuse given the substantial delays in treatment seeking among those with the disorder. The NISHS suggests that those with alcohol abuse wait on average 16 years before seeking any treatment. Furthermore, just 24% of those with 12-month alcohol abuse sought treatment in the 12 months previous to the interview (Bunting et al, under review).

Effective strategies to reduce alcohol-related harm require a combination of measures, covering both population-level approaches (such as price increases and advertising controls) and interventions aimed at individuals (NICE 2010).

Evidence indicates that brief interventions in primary care settings achieve an average 12.3% reduction in alcohol consumption per individual (Kaner et al 2007). However, this is a short-term effect and evidence about its duration is less clear cut.

3.3 Screening and Identification Alcohol Dependency

The NCCMH (2011) review for the development of the NICE (2011) guidelines on the diagnosis, assessment and management of harmful drinking and alcohol dependence identified three tools to measure alcohol dependence. These were the AUDIT (Babor et al., 2001); the SADQ (Stockwell et al., 1979); and the Leeds Dependence Questionnaire (LDQ) (Raistrick et al., 1994). The AUDIT is predominantly used for opportunistic screening purposes in nontreatment seeking populations (for example, primary care). The AUDIT score categories described relate to adults. Professional judgement as to whether to revise scores downwards should be considered for; women (including those who are or planning to become pregnant), young people (under 18 years), people aged 65 years or over, and those with significant mental health problems (O'Hare et al., 2006 cited by NCCMH 2011).

NCCMH (2011) note that it is important to recognise that the use of individual assessment tools alone, does not constitute a comprehensive assessment. In addition to a historical and recent history of drinking, the associated physical and mental health problems and the impact on health and social and economic problems should also be assessed.

Models of Care: Alcohol

In 2007 the Department of Health in England published best practice guidance for the management and treatment of alcohol misuse (ModCAM). This guidance described a four tier approach.

Tier 1 interventions include identification of alcohol misuse; provision of information on sensible drinking; simple brief interventions to reduce alcohol related harm; and referral of those with alcohol dependence or harm for more intensive interventions. These can be delivered by a wide range of staff in various settings, including accident and emergency departments, primary care, acute hospitals, mental health services, criminal justice services and social services.

Tier 2 interventions include open-access facilities and outreach that provide: alcohol-specific advice, information and support; extended brief interventions; and triage assessment and referral of those with more serious alcohol-related problems for *care planned* treatment. *Care planned* treatment refers to the process of planning and reviewing care within the context of structured alcohol treatment, and this is located within Tier 3. If staff have the appropriate competencies to deliver Tier 2 interventions, these can be delivered by the same range of agencies as Tier 1 interventions.

Tier 3 interventions include the provision of community-based specialist alcohol misuse assessment, and alcohol treatment that is coordinated and planned (see below). These include comprehensive assessment, structured psychological interventions or pharmacological interventions which aim to prevent relapse, community-based assisted alcohol withdrawal, day programmes and specialist alcohol liaison provided to for example, acute hospitals by specialist staff. Interventions are usually provided by staff working in specialist alcohol treatment agencies both NHS and non-statutory (although the latter are often funded by the NHS to provide these interventions). Important exceptions to this are GPs who may provide more specialised interventions within a Direct Enhanced Services contract (NHS Employers, 2008). Interventions provided by GPs often involve assisted alcohol withdrawal in the community or prescribing medication for relapse prevention. As with interventions in other tiers, staff need to have the relevant competence to be able to provide them safely and effectively.

Tier 4 interventions include the provision of residential, specialised alcohol treatments that are planned and coordinated, to ensure continuity of care and aftercare. These interventions include comprehensive assessment, inpatient assisted alcohol withdrawal and structured psychosocial interventions provided in a residential setting, including residential rehabilitation. Tier 4 interventions are usually provided by specialist alcohol inpatient or residential rehabilitation units. However, assisted alcohol withdrawal is often provided in other residential settings, including acute hospitals, mental health inpatient services, police custody and prisons, delivered by medical and other staff whose primary role is not specialist alcohol treatment.

3.4 Cost Effectiveness

An inexpensive intervention in primary care combines universal screening by GPs of all patients, followed by a 5-minute advice session for those who screen positive. The total cost of the intervention averaged over all those screened is £17.41 per head in 2009/10 prices (Purshouse et al 2009 cited in Aslam et al 2011).

Using a model to analyse the cost and benefits of GPs using the Alcohol Use Disorders Identification Test (AUDIT) to screen a representative sample of 1,000 adults attending their next GP consultation, followed by 5 minutes of advice for those identified as hazardous or harmful drinkers, Aslam et al (2011) conclude that such low-cost interventions in primary care offer good value for money in reducing alcohol-related harm.

However, Aslam et al note that the main constraint on national implementation is one of scale; options to consider include targeted approaches (e.g. focusing on young males), screening people only when they change GP rather than at next consultation, or using practice nurses rather than GPs to provide the screening and/or follow-up advice.

3.5 Guidance

NICE has issued three guidance documents on identification and treatment of alcohol misuse (NICE 2011, NICE 2010a; NICE 2010b).

The recent NICE (2011) guidance on the alcohol misuse

- Assess comorbid mental health problems as part of any comprehensive assessment, and throughout care for the alcohol misuse, because many comorbid problems (though not all) will improve with treatment for alcohol misuse. Use the assessment of comorbid mental health problems to inform the development of the overall care plan.
- For service users whose comorbid mental health problems do not significantly improve after abstinence from alcohol (typically after 3–4 weeks), consider providing or referring for specific treatment (see the relevant NICE guideline for the particular disorder).
- Refer people who misuse alcohol and have a significant comorbid mental health disorder, and those assessed to be at high risk of suicide, to a psychiatrist to make sure that effective assessment, treatment and risk-management plans are in place.
- For the treatment of comorbid mental health disorders refer to the relevant NICE guideline for the particular disorder, and:
- Service users who have been dependent on alcohol will need to be abstinent, or have very significantly reduced their drinking, to benefit from psychological interventions for comorbid mental health disorders.

NICE (2007) has issued additional guidance on drug misuse which recommends that in settings such as primary care, general hospitals and emergency departments consider asking people about recent drug use if they have symptoms that suggest the possibility of drug misuse, such as:

- acute chest pain in a young person
- acute psychosis
- mood and sleep disorders

In terms of treatment the NICE (2007) guidance recommends opportunistic brief interventions focused on motivation should be offered to people in limited contact with drug services (for example, those attending a needle and syringe exchange or primary care settings) if concerns about drug misuse are identified by the service user or staff member. These interventions should:

- normally consist of two sessions each lasting 10–45 minutes
- explore ambivalence about drug use and possible treatment, with the aim of increasing motivation to change behaviour, and provide non-judgemental feedback.

Staff should routinely provide people who misuse drugs with information about self-help groups. These groups should normally be based on 12-step principles; for example, Narcotics Anonymous and Cocaine Anonymous

Consider facilitating initial contact, for example by making the appointment, arranging transport and accompanying the person to the first session.

Formal Psychosocial Interventions

Behavioural couples therapy

Consider behavioural couples therapy for people who are in close contact with a non-drug-misusing partner and who present for treatment of stimulant or opioid misuse, including those who continue to use illicit drugs while receiving opioid maintenance treatment or after completing opioid detoxification.

Cognitive behavioural therapy and psychodynamic therapy

Consider evidence-based psychological treatments (in particular, cognitive behavioural therapy [CBT])

for comorbid depression and anxiety disorders in line with existing NICE guidance for people who:

- misuse cannabis or stimulants
- have achieved abstinence or are stabilised on opioid maintenance treatment.

Do not routinely offer CBT and psychodynamic therapy focused on the treatment of drug misuse to people who misuse cannabis or stimulants or those receiving opioid maintenance treatment.

Other treatments include:

- Opioid Detoxification including pharmacological treatment.

Support for families and Carers

NICE guidance (2007) on the support for families and carers includes

- Discuss with families and carers the impact of drug misuse on themselves and other familymembers, including children.
 - Offer an assessment of their personal, social and mental health needs.
 - Give advice and written information on the impact of drug misuse.
- Where the needs of families and carers have been identified:
 - offer guided self-help (usually a single session with written material provided)
 - inform them about support groups – for example, self-help groups specifically for families and carers – and facilitate contact.
- If families and carers continue to have significant problems, consider offering individual family meetings (normally at least five weekly sessions). These should:
 - provide information and education about drug misuse
 - help to identify sources of stress related to drug misuse
 - promote effective coping behaviours.

References Section 3: Alcohol and Mental Health

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4. Patients with Chronic Illness

4.1 Background

Patients with chronic conditions such as coronary heart disease, cancer, diabetes, COPD and neurological/brain disorders such as stroke, MS, Parkinson Disease and epilepsy can also experience an increased risk of developing major depression compared to people who do not have a chronic disease (Guthrie et al 2011; Evans et al (2005); Katon 2003 cited by Louch 2009). Chronic disease is typically associated with pain, fatigue, and disability, and is considered to be a permanent stressor affecting processes of cognitive appraisal and coping, and to have a significant impact on daily functioning, quality of life and survival (Nagyova et al 2005; Covic et al 2003).

The recent *No Health without Mental Health* policy document from England (Dept of Health 2011) has also prioritised the mental health needs of patients with chronic illness. In order to achieve the aims of better diagnosis and treatment of mental health problems for those with long-term physical conditions, and getting identification and treatment of anxiety or depression for those with medically unexplained symptoms *No Health Without Mental Health* makes a number of recommendations with relevance to primary care. These recommendations covering 5 themes: awareness, liaison mental health services, engaging patients and carers, re-organisation, commissioning and quality standards, and training.

The *awareness* theme includes the need for national guidelines about medical conditions to include specific advice about the detection and treatment of mental health problems associated with medical conditions. Screening for depression in specific long term conditions in primary care should be continued and extended under the Quality and Outcomes Framework (QOF), and people with learning disabilities and people with severe mental illness should receive relevant annual physical health checks.

Under *Liaison Mental Health Services* they recommend that liaison services should include specified and appropriate provision for older people, as well as children and young people.

In the theme *Engaging patients and carers* they recommend that information and education should be developed and provided in appropriate ways for patients, carers and the public to develop community awareness of the psychological aspects of physical conditions, and that patients should be better informed about, and involved in, decisions about their treatment, discharge and self-care. Similar to national guidelines they recommend that patients be involved in designing and improving mental health services from general hospitals and primary care settings, through audit, research and training.

In *re-organisation, commissioning and quality standards* they recommend that liaison mental health services should be commissioned and reviewed against agreed specific service standards, to ensure they provide effective, evidence based interventions to treat mental health problems in the general hospital, and that all care pathways for delivering physical healthcare should have a mental health component. There should be a counterpart pathway for commissioning practice to ensure the services are in place to deliver this.

Within *training* it is recommended that all health practitioners should have training in mental health. The curricula of all doctors in training and the continuing professional development of qualified doctors should reflect the relationship between mental and physical health, both in general and in specific conditions.

The evidence for the English strategy *No Health Without Mental Health* (Guthrie et al 2011) provides an overview of the research evidence on the relationship between mental health and physical health. The report is primarily concerned with mental health problems that are associated with, or arise from, physical illness, and the general interface between mental and physical health, and presents the evidence on a range of conditions including CHD, cancer, diabetes, COPD and neurological disorders such as stroke and epilepsy. The report pays particular attention to the needs of children/young people and older people with chronic illness.

Poor mental health is also a risk factor for poor physical health. For example Guthrie et al (2011) present evidence from systematic reviews on risk factors associated with increased risk of people with depression developing CHD (Barth et al 2004; Rugulis 2003; Wulsin and Singal 2003 Cited in Guthrie et al 2011). Depression also increases the risk of adverse outcomes among those who already have CHD (Barth et al 2004). Mortality and morbidity are increased among those with CHD and health-related quality of life is worse (Carney et al 2002; Wulsin and Singal 2003). However, Guthrie et al (2011) point out the available evidence is weak as many studies do not control adequately for potential confounding factors and there is evidence of publication bias.

In their practice guidance for the treatment of depression in patients with chronic health disease, Tylee and Dickens (2011) report that there is sufficient evidence that depression is a risk factor for CHD, depression worsens cardiac prognosis, and co-morbid depression is improved by medication and psychological treatments. However, there was insufficient evidence to make judgments on the cost effectiveness of different screening or treatments for patients with CHD.

The majority of patients with physical and mental health problems are managed in primary care, and GPs play a vital role in the detection and treatment of psychological problems in those who are physically unwell (Guthrie et al 2011).

Since the introduction of the Quality Outcomes Framework (QOF), GPs receive a financial incentive to perform regular health checks on CHD patients that include screening for depression. However, Guthrie et al note that despite this screening, the majority of depressed CHD patients do not receive adequate treatment for their depression. This may be due to prioritisation of physical health problems, perceived lack of expertise among GPs, or reluctance by patients to engage in mental health services.

The review level evidence on the effectiveness of different screening/treatment approaches to date has been assembled by chronic health condition. This rapid review only identified one systematic review (Thombs et al 2008) on effectiveness of screening and treatment, although more detailed searches may uncover further relevant reviews. Some of the broader reviews on different models of care (e.g. Pignone et al 2002; Gilbody et al 2006) also include some evidence statements with relevance to patients with chronic illness.

Aside from the association of mental health disorders with more serious chronic physical health conditions, other studies point to the wider physical health care needs of individuals with mental ill health. Mental health disorders are often accompanied by lack of exercise and poor diet and eating habits, which have an adverse effect on physical health, and in turn can exacerbate mental health morbidity. Furthermore, individuals with a given mental health disorder often engage in unhelpful coping strategies such as smoking and drug and alcohol misuse, which again exacerbate both physical and mental ill health (HM Government, 2011).

4.2 Screening

In their review of screening for depression in patients with cardiovascular disease (CVD) Thombs et al (2008) found that depression screening tools are reasonably accurate in patients with CVD, but there are few examples of screening tools or screening tool thresholds with demonstrated accuracy in more than one sample of patients with CVD. They found evidence that depression treatment in patients with CVD improves depression, but the effects on depression are modest with only minimal benefit compared with usual care or placebo. There was no evidence that depression treatment reduces cardiovascular events. No studies have examined whether screening for depression in patients with CVD improves access to depression care or outcomes.

Thombs et al note that in primary care settings, the use of depression screening questionnaires without substantial organisational systems to support management and follow-up provides little or no benefit. Their review did not find evidence for or against the recommendations that depression be evaluated or that screening for depression be considered as part of standard care in patients with CVD. There was insufficient research assessing the potential harms related to screening or treatment. They concluded that the adoption of depression screening in cardiovascular care settings would likely be unduly resource intensive and would not be likely to benefit patients in the absence of significant changes in current models of care.

4.3 Treatment

The NICE (2009) guidance recommends that treatment and management of depression in adults with chronic depression follows the principle of stepped care, where the intensity of treatment varies depending on the severity of the symptoms (see Section 7 on Models of care for further details)

A review of systematic reviews (Ouwens et al 2005) demonstrates that integrated care programmes generally have positive health outcomes (but this review did not include mental health as an outcome). The most commonly used components of integrated care programmes include: self-management support, patient education, case management, multidisciplinary patient care team, and clinical feedback/reminders/education. Authors caution that inconsistent definitions of interventions and outcomes are prevalent throughout the literature and, if ignored, can lead to inappropriate conclusions about the intervention.

Collaborative care has important characteristics for an integrated care model for mental health and is used for depression management. It is a multifaceted organisational intervention based on chronic disease management principles that involves a greater role of nonmedical specialists (e.g. nurse practitioners or case managers) working with mental health specialists and other clinicians to provide optimal disease management and treatment follow-up. It organises care around a patient, using a care-manager to give less costly, qualitative good and effective care. In a stepped-care arrangement, the intensity or complexity of care is stepped-up only when proven necessary. Patients are first offered an intervention that, while likely to be effective, is relatively easy to implement and carries relatively low cost or side effects. If the effect turns out to be insufficient, treatment is stepped up to a more complex, costly or taxing (in terms of side effects) level. The aim is to ensure that all eligible patients have access to appropriate care, while reserving the most complex treatments for those that have been shown not to benefit from more simple treatment. Collaborative care as a model of integrated care has been proposed as a potential solution to management barriers that may improve both short- and longer-term depression outcomes (Pignone et al 2002).

A recent meta-analysis by Gilbody et al (2006) on the effectiveness of collaborative care for the management of depression found only modest effects at 6-months and up to 5-years follow-up. However, one study in this review found that collaborative care was cost-effective for patients with depression and diabetes when total health service costs were considered.

(See Section 2 on further information on the effectiveness of different treatments for depression)

One of the key objectives outlined by the IAPT report 'No health without mental health' was for more people with mental health problems to have good physical health (HM government, 2011). Given the clear associations between mental illness and poor physical health, it is imperative that primary care professionals recognize physical healthcare needs in their approach to the management of treatment for individuals with mental health problems. A recent report by the Royal College of Psychiatrists, 'Physical health in mental health' (RCP, 2009) points to guidance from the National Institute for Mental Health in England (2004) which highlights the need for regular and appropriate health checks in primary care for patients in contact with psychiatric services. The report also alludes to an available training package for GP educators which focuses on the physical health care of psychiatric patients.

4.4 Cost Effectiveness

There is no review level evidence on the cost effectiveness of screening for or treatment of depression in patients with chronic illness. A number of primary studies exist. As noted above, one study included in the Gilbody et al (2006) review found that collaborative care was cost-effective for patients with depression and diabetes when total health service costs were considered.

It has been estimated that introducing collaborative care to patients with diabetes nationally has the potential to save the NHS and social care around £3.4 million in four years, with a further £11.7 million of benefits to individuals from improved productivity (HMH 2011).

4.5 Guidelines

NICE (2009) makes recommendations on the identification, treatment and management of depression in adults aged 18 years and older who also have a chronic physical health problem (such as cancer, heart disease, diabetes, or a musculoskeletal, respiratory or neurological disorder).

The guidelines recommend assessing a patient with a chronic physical health problem who may have depression, by conducting a comprehensive assessment that does not rely simply on a symptom count but takes into account both the degree of functional impairment and/or disability associated with the possible depression and the duration of the episode.

Treatment and care should take into account patients' needs and preferences. Good communication between practitioners and patients is essential. It should be supported by evidence-based written information tailored to the patient's needs. If the patient agrees, families and carers should have the opportunity to be involved in decisions about treatment and care, and should also be given the information and support they need.

In terms of treatment, NICE (2009) recommends that for patients with persistent subthreshold depressive symptoms or mild to moderate depression and a chronic physical health problem, and for patients with subthreshold depressive symptoms that complicate the care of the chronic physical

health problem, practitioners should consider offering one or more of the following interventions, guided by the patient's preference:

- a structured group physical activity programme;
- a group-based peer support (self-help) programme;
- individual guided self-help based on the principles of cognitive; behavioural therapy (CBT);
- computerised cognitive behavioural therapy (CCBT).

4.6 Research Gaps

- The research evidence on the effectiveness of screening/treatment of depression for patients with chronic illness is currently presented by condition (e.g. CVD); further systematic reviews are required to present the evidence across all conditions with a focus on primary care

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5. Suicide and Self-Harm

Comparisons: Usual Care

Papers: 1 review of review 10 systematic reviews (5 prevention)

Limited evidence to support:

- Collaborative care programmes to improve identification and management of depression
- Multi-component approaches (more research required as small number of studies)
- Mixed evidence to support screening for depression in adults where effective follow-up treatments available
- Mixed evidence to support training for GPs to recognise signs of depression and lower suicide rates (but recent research indicates that booster programmes may be required)

Insufficient evidence to support

- Use of guidelines or guideline education to detect self-harm or depression
- Primary Care delivered prevention work with children and young people and other at risk groups e.g. men, people in rural areas
- Cost effectiveness of primary care led suicide prevention work

5.1 Background

Suicide is death resulting from an intentional, self-inflicted act. Suicidal behaviour comprises both suicide and acts of self-harm that do not have a fatal outcome. Many terms are used to refer to the latter, including attempted suicide, suicide attempt, (deliberate) self-harm and parasuicide. Non-fatal self-harm may be subdivided into behaviour which was intended to result in death (high suicidal intent) and behaviour with mixed/ambivalent or no suicidal intent (McLean et al 2008).

Last year in Northern Ireland 313 deaths were registered as suicide (Northern Ireland Statistics and Research Agency). During the period from 1999-2009 a total of 2,258 deaths were registered as suicide. The number of male suicides has increased steadily over recent years. The female suicide rate has remained relatively constant over the same period.

It is estimated that around 81% of working age adults in England come into contact with a GP at least once a year (Birmingham et al 2011). Luoma et al (2002) found that the majority of individuals who died as a result of suicide had made contact with primary care providers in the preceding months. Patients with a psychiatric illness have a higher rate of consultation prior to suicide.

A recent study in the UK by Pearson et al (2009) found that 91% of patients with psychiatric illness who died by suicide had consulted their GP in the year before death but only a minority (just over a quarter) of GPs reported concerns about their patient's safety at the final consultation and only a sixth thought that the suicide could have been prevented. However, GPs and mental health services were not always in agreement about the level of risk present at final consultation.

Despite the patterns of consultations with GPs of those at risk of suicide, there remains much debate about how much of a reduction in suicide rates can be achieved in primary care by improved detection of those at risk (Church et al 2006).

A GP, or other primary care worker, may be the only health care practitioner in contact with an individual who may be contemplating suicide. Therefore, they will have an important role in detection of risk factors and appropriate management.

High-risk groups include:

- Males (especially young men under the age of 35 years)
- People who have been discharged from inpatient psychiatric services within past 4 weeks
- People with a history of self-harm
- People with alcohol and/or drug problems
- People with a family history of suicide
- Sentenced and remand prisoners and ex-prisoners recently released into the community
- People with serious physical illnesses
- Certain occupational groups – unskilled occupations, doctors, nurses, vets, farmers
- People from ethnic groups – women born in Sri Lanka, India and East Africa
- Divorced people
- Women before and after childbirth
- Older people
- People with mental health problems, especially depression, schizophrenia and personality disorders (many may not be in contact with secondary mental health services, especially people with depression)
- People recently bereaved

Source: Church et al (2006)

Across the lifespan there are specific populations at higher risk of suicide. Young people for example have been identified as an at risk population. Although the rate of suicide is very low before 14 years, attempted suicide begins to occur around 11–12 years and rapidly increases in frequency in the early and mid-teens. Research from Australia suggests that while many suicidal young people (15–34 years) seek general medical care in the month preceding their suicidal behaviour (Pfaff et al., 1999), fewer than half of GPs in a US study report routinely screening their patients for suicide risk (Frankenfield et al., 2000).

Men appear to be at greater risk of suicide (Meltzer et al. 1996 cited by Taylor et al 2007). Males tend not to present to primary care providers and as such pose a particular challenge for preventive work within this setting.

Suicide is associated with a complex array of factors such as mental illness, social isolation, a previous suicide attempt, physical illness, substance abuse and access to a means of suicide (Beautrais, 2000). Of the reviews identified on the subject of suicide prevention 5 focused on identifying risk and protective factors (Crowley et al 2004, Beautrais 2003, Beautrais et al 2005; Hawton et al 2007; McLean et al 2008). Risk and protective factors or determinants of suicide and suicidal behaviour can occur at the individual, psychosocial and societal levels. Recently attention has been directed to protective role of resilience. Resilience is the capability of individuals and systems (families, groups, and communities) to cope successfully in the face of significant adversity or suicide risk, and is considered a useful way of identifying protective factors. A greater understanding of both risk and protective factors will contribute to the development of more timely and effective intervention. Mc Lean and colleagues (2008) present an analysis of the most recent research on risk and protective factors and have identified a number of research gaps and priorities on this topic.

5.2 Prevention

Three reviews (Beautrais et al 2007, Mann et al 2005, Leitner et al 2008) have examined the evidence on the effectiveness of suicide prevention including work within primary care. Mann et al (2005) and Leitner et al (2008) conducted a systematic review using transparent review procedures, while the review by Beautrais et al (2007) is weaker without details of search strategy, inclusion/exclusion criteria and quality assessment procedures etc. However, Beautrais et al (2007) used a four-fold classification to grade the suicide prevention initiatives based on an evidence hierarchy: Initiatives with strong evidence of effectiveness (evaluated using RCTs with consistent findings), Initiatives that appear promising (evidence of effectiveness exists not consistent enough to classify the findings as strong); Initiatives for which no evidence of effectiveness exists but which *may be beneficial* in suicide prevention; and Initiatives for which evidence of harmful effects exist. (Concerns have been raised regarding their safety and there is reason to believe that they may risk increasing (rather than decreasing) rates of suicidal behaviour).

Research with GPs in Australia found that many felt ill-equipped to prevent or identify suicide risk in their patients (Pfaff et al 2001). It has been argued that increasing GPs knowledge and skills to identify and manage patients who may be at risk of suicide could prevent some suicides (Hawgood et al 2008). It may also make GPs feel more prepared and proactive when they encounter patients' vague and inscrutable, often somatic, symptoms that could mask suicide ideation (Mann et al. 2005). Training programmes can raise awareness of suicide among health professionals, develop understanding of the risk factors and warning signs, enable identification of vulnerable individuals and increase confidence in handling cases (e.g. learning to provide appropriate referral where needed).

In their review of the evidence Beautrais et al (2007) classified training for general practitioners as having strong evidence of effectiveness. They concluded that providing medical practitioners in primary care with training to enable them to better recognise and treat depression has been shown to result in improved treatment of patients with depression and in lower suicide rates (Bruce et al . 2004). They also concluded that quality improvement initiatives, collaborative care programmes and nurse case management programmes in primary care settings have been shown to improve identification and management of depression (e.g. Gilbody et al 2003) (For further information on

this approach please see section on Models of Care). Beautrais et al argue that this approach also needs to be extended to enhance physician detection and treatment of, not only depression, but other mental illnesses, including substance use disorders, which increase risk of suicidal behaviour.

These conclusions concur with Mann et al's findings which found that GP education/training increased the number of diagnosed and treated depressed patients with accompanying reductions in suicide. They noted that booster programmes appear necessary. They recommend that education programmes targeting primary care physicians should include instruction on use of antidepressants.

However, in a more recent review by Leitner et al (2008) the findings on GP training are mixed. Leitner et al found three studies specifically on training GPs to recognise and treat depression or other mental ill health. None of these studies (Rutz & Walinder 1992, Owens et al 2004, Alexopoulos et al 2005) reported any change in outcomes for suicidal behaviour or ideation either with or without the support of statistical analysis. They found three evaluations of more broadly based GP and nurse training initiatives, based on encouraging staff to follow a care management approach. One of these studies reported statistically significant reductions in suicidal ideation (Bruce et al 2004); one provided narrative support of a reduction in suicides (Rutz 2001); but the third (Nutting et al 2005) failed to find any change in suicidal ideation as a consequence of the intervention (STORM). A further study (Morriss et al 2005) on brief educational intervention for a range of health professionals (but primarily GP practice staff) failed to find any significant reductions in completed suicide.

Church et al (2006) also comment on the limited robust research evidence into effective suicide prevention training programmes in mental health. They refer to the research from Sweden that found education for GPs helped to reduce numbers of suicide (Rutz et al, 1992; Rihmer et al, 1993). The programme focused on the recognition and treatment of depression. Several outcome measures were assessed, including antidepressant and anxiolytic prescribing, referrals for psychiatric consultation, psychiatric inpatient treatment, sick leave for depression, and suicides. Positive results were found for the programme, although the findings were the subject of some debate. When half of the GPs who had received the training left the area the suicide rate subsequently increased, indicating the need for regular training to sustain the positive effects.

In England on the STORM project (Appleby et al 2000, Nutting et al 2005) training has been delivered to frontline staff in primary care, A&E settings and in community settings to prevent suicide. Recent research from Scotland (Greisbach et al 2008) indicates that GPs who go on the suicide prevention training (ASIST) course had a 20% greater chance of identifying those at risk of suicidal behaviour in the year following training³. This is an interesting result, but at this stage requires substantial external validation.

Practice Guidelines

Leitner et al (2008) found one RCT (Bennewith et al 2002) evaluating a general practice based intervention whereby GPs were given management guidelines for good practice in respect of self-harm and subsequently proactively offered clients with self-harming behaviour the opportunity for a consultation. This study failed to find any significant differences between the intervention and non-intervention groups on any of the three outcome measures evaluated (repeat episodes of self-harm, the number of repeat episodes and time to first repetition). Similarly, another study in England (Thompson et al 2000) failed to demonstrate an increase in detection of depression or in patient recovery rates following guideline education within a practice based setting.

³ Dolev et al (2008) prepared a review of suicide prevention training for the Scottish Government as part of the ASIST training evaluation in Scotland.
<http://www.scotland.gov.uk/Publications/2008/05/19160110/0>

Multi-Component Approaches

Woods et al (2010) point to the emerging evidence of multi-component approaches to suicide prevention. As the causes of self-harm and suicidal behaviour are wide ranging and complex (McLean et al 2008), multi-component interventions offer the opportunity to address a variety of risk factors at one time, and at varying levels (e.g. individual, community and societal). For instance, interventions that combine school and community education initiatives with training for health professionals and gatekeepers, and emotional support for those in need have been successful in reducing rates of suicide (Hegel et al 2009; Knox et al 2003). Woods et al provide an example of a programme in Germany that combined four elements to address depression: training for health professionals; a media and public information campaign; training for gatekeepers such as police, carers and teachers; and support for depressed people and their families, including the distribution of emergency cards for individuals at high risk of attempting suicide. Over the intervention period and during the following year, levels of suicidal acts decreased by over 30% (Hegel et al 2009).

Prevention Work with Children and Young People

Much of the prevention work with children and young people tends to be delivered in the school and community based settings. Currently no systematic review has assembled the evidence on suicide prevention work with young people with a specific focus on the role of primary care. In their broader review of the evidence Leitner et al (2008) found 10 studies of suicide prevention programmes directed to children aged 0-15 years. The programmes were delivered through a range of approaches and across different settings. Leitner et al (2008) conclude on the basis of the available literature that there is no evidence to inform a targeted prevention strategy aimed at reducing suicide in children. There is limited evidence that some interventions, including pharmaceutical, psychotherapeutic, behavioural and staff or parent training initiatives *may* be effective in reducing attempted suicide, self-harm and, in particular, suicidal ideation. But the small number of studies, combined with the diverse modes of intervention evaluated, fails to provide a consistent body of evidence that suggests any clear way forward for intervention with children.

Another review on the topic of youth suicide prevention (Crowley et al 2004) found two systematic reviews (Hider, 1998; Gunnell, 1994) which suggest that it is possible to predict young people at higher risk of suicide, but they found only one small evaluation study which investigated the effectiveness of education of GPs on risk factors. However, Crowley et al also conclude that the apparent potential for GPs in identifying and managing at-risk youth remains unproven and further evaluative research is required.

Leitner et al found 17 studies of suicide prevention programmes directed to young adults (aged 16-25). This body of evidence, although greater in number and generally more positive in outcome than the evidence for children and young people, provides no greater evidence to support a targeted intervention strategy. Where there was some evidence of effectiveness it is not clear from the review which parts of this programme delivered the effectiveness.

Prevention work with Older People

Only one primary care based study (Bruce et al 2004) was identified in the reviews with a focus on older people. This study found a reduction in suicidal ideation following the introduction of improved treatment guidelines for the care of older people in primary care settings. Leitner et al (2008) also included two studies (Barak et al 2006, De et al 1995) that reported positive outcomes in relation to a reduction in completed suicide among older people. Barak et al 2006 focused on treatment with SSRIs and reported reductions in attempted suicide as a result of intervention. De et al (1996) reported on a community-based intervention involving telephone support services aiming

to maintain contact and offer elderly people home assistance (for issues unrelated to suicidal behaviour).

5.3 Identification

As discussed in the previous sections, health professionals can be trained in the use of screening tools to aid identification of at-risk individuals. These tools consist of a short series of questions that enquire about risk factors for suicide such as depression, substance use, thoughts of death, self-harm, suicidal ideation and past suicide attempts. Answers to the questions are scored, with overall scores providing an indication of risk. Screening tools can reliably identify people at risk of suicide, but they also have the potential to falsely classify people as at-risk, creating an additional burden on health care staff (Gaynes et al 2004). There have been inconsistent results around their effectiveness in reducing risks of suicide, with outcomes largely dependent on the aftercare and support offered through referral.

The Canadian Task Force on Preventative Health Care (MacMillan et al 2004) found some evidence that screening adults in the general population for depression within primary care settings which have integrated programmes for feedback and treatment was potentially useful. However, there was insufficient evidence to recommend for or against screening adults in the general population for depression within primary care settings where effective follow up and treatment are not available.

As suicide is closely associated with depression, screening for depression is often a focus of suicide prevention in primary care settings. The US Preventive Services Task Force (USPSTF) recently recommended that adolescents (12–18 years of age) be screened for major depressive disorder when adequate systems are in place to ensure accurate diagnosis, treatment and follow-up (Williams et al. 2009).

A USPSTF review of studies of depression screening in adults in primary health care settings found a 10% to 47% increase in rates of detection and diagnosis of depression with the use of screening tools (Pignone et al 2002). The review does not report on suicide behaviour. The 2004 USPSTF review of evidence on screening for suicide risk (Gaynes et al 2004), as opposed to depression, found no published studies in English evaluating the effectiveness of screening for suicide risk in primary care.

In their systematic review on suicide prevention Mann et al (2005) conclude that although screening programs have reported some success in identifying individuals with known risk factors for suicide, particularly among high school and college student populations, further consideration needs to be given to determining the cost-effectiveness of screening general populations vs. identified at-risk populations for reducing suicide rates, the predictive validity and reliability of specific screening instruments, and the appropriateness of standard suicide screening instruments across different cultures.

A recent review (Horowitz et al 2009) examined the research evidence on suicide screening in schools, primary care and emergency departments. This review was restricted to papers published between 2007-2009 as previous reviews covered papers published before 2007 (Peña et al 2006; Wintersteen et al 2007). Horowitz et al (2009) report on two evaluations of screening tools in primary care. For example Zuckerbrot *et al* (2006a) found that instituting a universal depression screen in pediatric practices was feasible and acceptable in three primary care practices using the CDS Guidelines for Adolescent Depression in Primary Care (GLAD-PC).

Gaynes et al (2006) tested the Symptom Driven Diagnostic System for Primary Care and found the one item (thoughts of death) had 100% sensitivity and 81% specificity for detection of patients with a plan to commit suicide (Gaynes et al 2006). Such a single item test could prove useful in detecting

at-risk patients who could undergo further evaluation of risk factors. (See section on depression for further information on screening for depression in general population.)

Repetition of self-harm is a major risk factor for suicide. Suicidal intent at the time of self-harm is associated with risk of future suicide but currently there is no method identifying the individuals who self-harm and are at greatest risk of completing suicide (National Public Health Service for Wales, 2007).

5.4 Treatment

There is no review level evidence focusing on the effectiveness of primary care delivered treatment approaches for patients at risk of suicide. There are, however, a number of reviews (Mann et al 2005; Leitner et al 2008) on the topic of suicide prevention that present the available evidence on the effectiveness of different treatments with some evidence with relevance to primary care.

Much of the treatment with people who are at risk of suicide or who attempted suicide is delivered within secondary care. Mann et al (2005) examined the evidence on the effectiveness of psychotherapy as a treatment to prevent suicide. They concluded that psychotherapy alone or in combination with some antidepressants can be an effective treatment for depression, for suicidal ideation, for suicide attempts in borderline personality disorder, and for preventing new attempts after a suicide attempt. They note that more research is required on the effectiveness of combinations of psychotherapeutic and pharmacologic interventions for short-and long-term outcomes for suicidal patients. As the review does not identify the settings of the treatment it is not possible to describe the effectiveness of this treatment approach within primary care settings.

There is evidence that alcohol problems are more prevalent in people with depression than in the general population and this group may be at greater risk of suicide than those with depression alone (Sullivan et al 2005). The evidence concerning the effect of alcohol on the course of depression is equivocal although it is associated with a worse depression course and an increased risk of relapse and less likelihood of recovery. However antidepressants can be effective in this group (see section on alcohol misuse for further information).

People with physical illnesses, particularly cancer, neurological disorders, renal disease and chronic pain, are at greater risk of suicide than the general population. Policies and programmes that improve awareness, recognition and treatment of psychiatric illness, mental distress and suicidal ideation and behaviour in people with physical illness may reduce this risk (National Public Health Service for Wales, 2007). (See section on Chronic Illness for further details).

Mann et al (2005) also notes that many psychiatric disorders, including depression, are chronic and recurrent and compliance with maintenance medication is often poor. They found that interventions for depression provided by primary care physicians are more effective when a case manager follows up with patients who miss appointments or need prescription renewals.

While pharmacological treatments have not been included in this rapid review it is noteworthy that Leitner et al (2008) note that one of the most prominent modes of intervention currently used for suicidal behaviour and ideation is pharmaceutical intervention. They warn that it is important that clinicians recognise that the evidence base for this approach is equivocal.

5.5 Cost effectiveness

There is no review level evidence on the cost effectiveness of primary care led suicide prevention work.

The economic impacts of suicide are profound, although comparatively few studies have sought to quantify these costs. Mc Daid et al (2011) estimate that the average cost per completed suicide for those of working age only in England is £1.67m (at 2009 prices). This includes intangible costs (loss of life to the individual and the pain and suffering of relatives), as well as lost output (both waged and unwaged), police time and funerals. There are also costs to the public purse from recurrent non-fatal suicide events; these are more difficult to estimate, and will vary by means of suicide attempt. They estimate the economic benefits from delaying completed suicide to be £66,797 per year per person of working age.

McDaid et al examined the cost effectiveness of GP intervention to reduce suicide. They estimate that the cost of providing CBT to prevent suicide in the first year (course of 10 sessions) is about £400. Further ongoing pharmaceutical and psychological therapy is estimated to cost £1,182 a year (2009 prices). The cost of suicide prevention training for GPs, based on the Applied Suicide Intervention Skills Training (ASIST) course is £200.

5.6 Guidelines

The National Standards Framework (NSF) for Mental Health specifies that primary care staff should be able to assess and manage depression and the risk of suicide.

NICE guidelines for people with depression (2010) recommend that if someone identified as having depression is assessed to be at risk of suicide, primary care practitioners should consider:

- toxicity in overdose where an antidepressant is prescribed and when determining the quantity supplied at any one time; where necessary, implement strategies to limit the amount of drug available
- the use of additional support such as more frequent direct or telephone contacts referral to specialist mental health services.

As previously stated people with drug and alcohol problems are at greater risk of suicide and self-harm than the general population. Effective management of these problems may reduce this risk although currently there is little direct evidence of this (National Public Health Service Wales 2007). The British Association for Psychopharmacology has developed guidelines for the treatment of substance misuse, addiction and co morbidity with psychiatric disorders. The primary focus of these guidelines is on pharmacological management (Lingford-Hughes et al 2004).

5.7 Gaps in evidence base

There is a need for systematic reviews

- on the effectiveness of screening for suicide risk in primary care setting
- on the role of the primary care team in the prevention and identification of patients at risk of suicide. Such a review should consider the evidence on the effectiveness of different approaches to changing professional practice (e.g. training v guidelines etc).
- on the evidence of partnership working across different settings to prevent suicide.
- on the cost effectiveness of primary care led suicide prevention

on the effectiveness and cost effectiveness of primary care based interventions with higher risk groups such as young people, men, farmers, and older people

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6 Dementia

Studies:

1 Review of reviews

12 Reviews

Good evidence to support:

- Screening tools as a means to detect dementia
- Non-pharmacological Interventions (music or music therapy, hand massage or gentle touch and physical activity/exercise) for use with particular symptoms of dementia
- Group support for families and carers. Psycho-educational programmes improved psychological wellbeing and depression, and educational programmes significantly improved the outcome variable on burden

Limited evidence to support:

- Promising interventions include Animal-Assisted Therapy, Aromatherapy, Behaviour Management, Cognitive Stimulation, Environmental Manipulation, Light Therapy, Reality Orientation, Reminiscence Therapy, MSS, TENS, Validation Therapy – but the available evidence is weak and conflicting. Further robust research is required.

No evidence to support:

- The effectiveness of interventions to prevent dementia but there is some evidence to indicate that health promotion/prevention messages targeting cardiovascular risk by modifying lifestyle may indirectly reduce risk of vascular dementia
- There is no review level evidence on the beneficial effect of acupuncture and counseling.

6.1 Background

Dementia is an acquired syndrome of decline in memory and at least one other cognitive domain, such as language, visuo-spatial, or executive function, sufficient to interfere with social or occupational functioning in an alert person. People with dementia are at an increased risk of physical health problems and become increasingly dependent on health and social care services and on other people.

Multiple diseases can cause the dementia syndrome (hereafter, dementia). Alzheimer's disease and cerebrovascular ischemia (vascular dementia) are the two most common causes; some cases involve both of these etiologies (Boustani et al 2003). The three common subtypes of dementia that GPs are likely to encounter are Alzheimer's disease (40%), vascular dementia with or without Alzheimer features (25%) and Dementia with Lewy Bodies (25%) (Iliffe et al 2009a).

Dementia has an insidious onset, and slow progression. People may take 12–18 months from the first appearance of symptoms to when they first present to their general practitioner (GP). It can take a similar length of time for the diagnosis to be made (Iliffe et al 2009a)

The prognosis depends on the cause of the dementia, and varies from person to person since the course of the condition and pattern of symptoms varies. Some people with dementia live for many years, but on average people live for about 5 years from when symptoms were first recognized and about 3.5 years from the time of diagnosis. Early-onset dementia tends to progress more rapidly (Iliffe et al 2009b).

As it develops, dementia results in increasingly severe loss of memory or other cognitive functions, and psychological and behavioural problems can be difficult to manage. Almost all people with dementia eventually develop one or more psychological or behavioural problems, which include language difficulties, disorientation, psychiatric symptoms (such as apathy, depression, psychosis), and personality and behavioural changes (including aggression, sleep disturbance, sexual apathy, or, rarely, disinhibited sexual behaviour). Changes in personality and/or mood may lead GPs to make an initial, erroneous diagnosis of depression, although depression may coexist alongside dementia. Family carers often present their concerns to the GP before the person themselves attends with their symptoms (Bamford et al., 2007a).

Dementia causes a high burden of suffering for patients, their families, and society (Boustani et al 2003; Luengo-Fernandez et al., 2010). For patients, it leads to increased dependency and complicates other comorbid conditions. For families, it leads to anxiety, depression, and increased time spent caring for a loved one.

6.2 Prevention

Although many approaches have been suggested, there is no known way to prevent dementia, except possibly for vascular dementia, when it is reasonable to expect that risk can be reduced by maintaining a healthy lifestyle and by interventions targeting cardiovascular risk (MeRec 2007). Middle aged and older people should be reviewed for vascular and other modifiable risk factors for dementia (e.g. smoking, excessive alcohol consumption, obesity, diabetes, hypertension and raised cholesterol) and treated where appropriate.

6.3 Identification and Screening in Primary Care

Holsinger et al (2007) reviewed the evidence of the accuracy of screening for dementia among over 60s in primary care. They identified 29 studies assessing 25 screening instruments. They concluded that screening tests to identify dementia in older people in primary care settings vary in diagnostic accuracy and administration time. While no single instrument is ideal for all settings, Holsinger et al concluded that clinicians should select one primary tool and familiarise themselves with it to become more efficient in screening for dementia.

In an earlier review Harvan et al (2006) evaluated the available evidence on screening methods for dementia to determine the most accurate and efficient tools for use in primary care. Their review identified 20 relevant studies. They concluded that the Mini Mental State Examination (MMSE) has high sensitivity and specificity in outpatients older than 65 years when age- and education-specific cut-offs are used. The clock drawing test has lower sensitivity and specificity when used alone; however, in combination with the MMSE, its sensitivity is higher than that of the MMSE while specificity is slightly lower. Subjective memory complaints contribute diagnostic information;

however, objective memory performance is a stronger predictor of future dementia. All measures are subject to influence by age, education, and other physical factors.

Despite the availability of screening tools, dementia is probably under-diagnosed and under treated with an estimated 50% of primary care patients over 65 not diagnosed by their primary care physicians. Iliffe et al (2009c) suggest this problem of under-diagnosis is probably not due to lack of diagnostic skills, but the interaction of case-complexity, pressure on time and the negative effects of reimbursement systems.

Koch et al (2010) conducted a systematic review to explore the barriers to dementia diagnosis within primary care. They located 11 studies (six qualitative, three quantitative, and two with mixed methodologies). Six themes emerged powerfully from the research that can be grouped into doctor factors, patient or societal factors, and system factors. Doctor factors consist of barriers such as diagnostic uncertainty or insufficient knowledge or experience, as well as disclosing the diagnosis, stigma attached to dementia, and therapeutic nihilism. Patient or societal factors included stigma, as well as delayed presentation which could be because of stigma, but also because of many other reasons. Finally the systems factors included time constraints and lack of support (which were the most often-identified factors), as well as financial or remuneration issues.⁴ Koch et al conclude that additional research on routine screening in primary care to bolster the current evidence, use of nurses as evaluators of cognition, and utilization of specialists is needed.

6.4 Non-Pharmacological Treatments

There are between 12 and 20 people with dementia on an average GP list. People with dementia often need specific information and support, and their GP plays a vital role in enabling them to manage their condition (Alzheimer's Society, 2008)

In most cases, dementia is progressive and incurable, and interventions are used to relieve symptoms and improve quality of life of patients and their carers. Deterioration in cognitive symptoms is a core symptom of dementia, and this has been the major target of drug trials in dementia. However, changes in functional ability (activities of daily living), disturbances in behaviour and mood, and comorbid emotional disorders are also important and can have considerable effects on the quality of life of patients and their carers.

Hulme et al (2010) conducted a review of reviews on the effectiveness of non-pharmacological treatment for patients with dementia. They judged 25 of the 33 located reviews to be of high or good quality. The evidence from the reviews suggests three different interventions effective for people with dementia: music or music therapy, hand massage or gentle touch and physical activity or exercise. However even for these interventions the evidence is mixed or limited. For example, within music or music therapy methodological limitations were highlighted that included weak study designs and small sample numbers but the positive effects were consistent across the studies. In respect of massage or touch therapies, although the reviews suggest that they do work in reducing agitation in the short term and can help with eating there was no conclusive evidence that massage reduces wandering, anxiety or aggressiveness. Hulme et al note that the interventions included in each of the categories, whilst placed in generic categories (such as music therapy or massage and touch) are diverse.

⁴ It is noteworthy that none of the UK studies were conducted after the introduction of the Quality and Outcomes Framework which attaches remuneration for the creation and maintenance of a database of patients with dementia.

Hulme et al included a category of interventions that ‘might work’ (due to differing quality of evidence). These included AAT, Aromatherapy, Behaviour Management, Cognitive Stimulation, Environmental Manipulation, Light Therapy, Reality Orientation, Reminiscence Therapy, MSS, TENS, and Validation Therapy. The lack of firm evidence arose for a number of reasons including conflicting results and weakness in study design. Such interventions might be useful in managing symptoms of dementia but the evidence is not strong enough to support their use. Hulme et al note that some of this category of interventions in this group form the backbone of coping/prevention strategies outlined in dementia organisations’ websites.

There was no evidence to suggest beneficial effects for only two interventions, acupuncture and counselling. Only one paper attempted to explore the use of acupuncture but no studies met their criteria (Peng et al., 2007).

6.5 Support for Carers

In general support for carers tends to fall into three categories (1) work with families as a whole which including interventions drawing on family therapy models, or services provided in the home by, say, family support workers (2) Educational programmes – including training and psycho-educational interventions and (3) Breaks from caring including day care, in-home respite care, institutional respite and mixed respite services.

In a recent review of reviews, Parker et al (2010) included five reviews focused on interventions for carers of people with dementia or (Cooke, 2001; Pusey, 2001; Peacock, 2003; National Collaborating Centre for Mental Health, 2007; Cooper, 2007) and two reviews which focused on carers of stroke victims or frail elderly relatives (Stoltz 2004, Victor 2009). Two reviews focused on psychosocial interventions (Cooke, 2001; Pusey, 2001).

The remaining five each encompassed a diverse range of interventions (Peacock, 2003; Stoltz, 2004; NCCMH, 2007; Cooper, 2007; Victor, 2009). Evidence about carers’ mental health was a common outcome reported in the included reviews. For example, Peacock (2003) identified three RCTs which reported findings about the impact of interventions on carers’ levels of depression. Only one (an education programme) reported positive findings in relation to depression in carers. The other two trials showed no effect on overall psychological well-being, including depression and strain, from education interventions or from case management. Similarly, Pusey (2001) also reviewed psychosocial interventions and identified over 20 studies that examined outcomes relating to depression. Half of the eight identified RCTs or controlled studies reported a positive effect of the intervention; half did not.

Victor (2009) identified 16 studies looking at a range of carer’ support workers’ in health and social care, or the voluntary sector. These were people who specialised in working with carers and included GP-based carer support workers; South Asian advocacy workers; mental health specialist carer support workers; support workers for carers of people with dementia; support nurse work with carers of people with lung cancer; and stroke specialist support workers. Parker et al (2010) report that there was some evidence to suggest that this type of intervention contributed to carers’ improved psychological well-being but the evidence was relatively weak and in studies where the research design was stronger, the findings of improvements in carer wellbeing were less convincing. Two studies examining the outcomes of GP-based health interventions for carers suggested that this form of support could also deliver better outcomes in terms of carers’ emotional well-being.

A more recent systematic review and meta-analysis of group support for carers/family of patients with dementia (Chien et al. 2011) found some benefits of this approach. The meta-analysis of 30 studies found group support had a positive impact on caregivers’ psychological well-being,

depression, and social outcomes (with a moderate effect size but the pooled effect size in burden was small). The review found that the use of theoretical models, and length and intensity of group sessions had a significant impact on the effect sizes for psychological wellbeing and depression. For example, psycho-educational groups showed a significantly higher effect in the outcome variables for psychological well-being and depression. Both educational and psycho-educational groups demonstrated significant positive effects in the outcome variable of burden, but the educational group appeared to be more effective in this regard. This finding suggests that educational groups can provide immediate information and advice on caregiving skills, ways of self-adjustment, handling and legal issues and thereby facilitate caregivers' access to available resources that can reduce their burden in patient care quickly. Psycho-educational groups not only provide practical information on patient care, but also focus on caregivers' psychological and emotional status as well as establishing a social, supportive network, and are more effective at improving caregivers' psychological well-being and depression.

6.6 Cost Effectiveness

No review level evidence was identified on the cost effectiveness of primary care support for families/carers' of patients with dementia.

A recent study undertaken by the Health Economics Research Centre at the University of Oxford (Luengo-Fernandez et al., 2010) estimated that

- Over 820,000 people in the UK live with Alzheimer's and other dementias.
- Dementia costs the UK economy £23 billion per year: more than cancer and heart disease combined.
- Dementia research is severely underfunded, receiving 12 times less support than cancer research.

In their recent review of reviews, Parker et al (2010) identified two reviews which focused on cost-effectiveness. However, both reviews focused on the cost effectiveness of respite-care rather than specific support interventions for carers. They note that where there is evidence of effectiveness there is rarely evidence of costs, whether to health and social care services or to carers and families themselves.

6.7 Guidelines

Screening

The most recent NICE-SCIE (2007) guidelines on dementia recommend that

- General population screening for dementia should not be undertaken.
- In middle-aged and older people, vascular and other modifiable risk factors for dementia should be reviewed and, if appropriate, treated.
- Healthcare professionals working with people likely to have a genetic cause for their dementia should offer to refer them and their unaffected relatives for genetic counselling.
- Regional genetic services should provide genetic counselling to people who are likely to have a genetic cause for their dementia and their unaffected relatives.

- If a genetic cause for dementia is not suspected, including late-onset dementia, genotyping should not be undertaken for clinical purposes.

Preventive measures

The National Institute for Health and Clinical Excellence – Social Care Institute for Excellence (NICE-SCIE) (2007) guidelines recommend the following.

- For the secondary prevention of dementia, vascular and other modifiable risk factors should be reviewed in people with dementia, and if appropriate, treated
- The following interventions should not be prescribed as specific treatments for the primary prevention of dementia:
 - statins
 - hormone replacement therapy
 - vitamin E
 - non-steroidal anti-inflammatory drugs.

Early identification of dementia

The NICE-SCIE (2007) guidelines on dementia recommend that

- Primary healthcare staff should consider referring people who show signs of mild cognitive impairment (MCI) for assessment by memory assessment services to aid early identification of dementia, because more than 50% of people with MCI later develop dementia.
- Those undertaking health checks as part of health facilitation for people with learning disabilities should be aware of the increased risk of dementia in this group. Those undertaking health checks for other high-risk groups, for example those who have had a stroke and those with neurological conditions such as Parkinson's disease, should also be aware of the possibility of dementia.
- Memory assessment services that identify people with MCI (including those without memory impairment, which may be absent in the earlier stages of non-Alzheimer's dementias) should offer follow-up to monitor cognitive decline and other signs of possible dementia in order to plan care at an early stage.

Assessment

The NICE-SCIE (2007) guidelines recommend that diagnosis of dementia should be made only after a comprehensive assessment, which should include: history taking, cognitive and mental state examination, physical examination and other appropriate investigations and a review of medication in order to identify drugs that may adversely affect cognitive functioning. People who are assessed for the possibility of dementia should be asked if they wish to know the diagnosis and with whom this should be shared.

Clinical cognitive assessment in those with suspected dementia should include examination of attention and concentration, orientation, short and long-term memory, praxis, language and executive function. As part of this assessment, formal cognitive testing should be undertaken using a standardised instrument such as the Mini Mental State Examination (MMSE) or the 6-item Cognitive Impairment Test (6-CIT) or the General Practitioner Assessment of Cognition (GPCOG) or the 7-Minute Screen. Those interpreting the scores of such tests should take full account of other factors known to affect performance, including educational level, skills, prior level of functioning and

attainment, language, and any sensory impairments, psychiatric illness or physical/neurological problems.

Formal neuropsychological testing should form part of the assessment in cases of mild or questionable dementia.

At the time of diagnosis of dementia, and at regular intervals subsequently, assessment should be made for medical comorbidities and key psychiatric features associated with dementia, including depression and psychosis, to ensure optimal management of coexisting conditions.

6.8 Research Gaps

- Reviews of cost effectiveness of primary care screening and treatment.
- Further research is required on the non-pharmacological treatments for dementia.
- Further research is required on the cost-effectiveness of support for carers with specific attention to a UK context.

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7 Primary Care Models of Care

Comparisons: Different models of delivery of care

Studies: 2 Reviews of Reviews and 13 Systematic Reviews

Good evidence to support:

- Case management which included direct feedback to GPs, provision of additional intervention and case manager with a mental health background or a trained para-professional
- Collaborative care although more information derived from UK studies required and while deemed effective in primary care, it is more expensive than usual care

Limited evidence to support:

- Stepped care which has been adopted by policy makers even though the evidence base is weak
- Chronic care management, and while there was support, the evidence base was flawed
- Replacement/referral models which are common in the UK
- Home-based approaches for older people

Inconclusive evidence to support or reject:

- A consultation-liaison approach to management of mental health in primary care
- Shared decision-making as an approach although it is promoted as good practice

No evidence to support:

- Passive training of primary care staff however, this does not imply interventions would be more effective without this element rather training plays a role in influencing clinical practice that cannot directly be linked to outcomes for patients

7.1 Background

Reviews by the (National Collaborating Centre for Mental Health 2010) and (Bower 2005) identified a range of approaches to service delivery and models of care for use in primary and secondary care management and treatment of mental health issues. The different approaches are listed below along with a short description of the model, and available evidence of effectiveness.

In terms of primary care in the UK, Bower and Gilbody (2005) argue that quality improvement activities in the UK have focused on the replacement/referral model (with a parallel increase in psychological therapies) and training and education of primary care staff. This is discussed in more detail below.

7.1.1 Training for primary care staff

Training is taken to mean the provision of knowledge and skills in the area of mental health for primary care staff. This could include improving prescribing or skills in psychological therapy. Training incorporates passive dissemination of guidelines or information to more active methods like seminars.

Bower and Gilbody (2005) identified two quality reviews on training. One review focused on 'passive' training and authors concluded that this approach was ineffective in improving outcomes in patients. The second review examined more intense training around psychosocial interventions, and found some benefits to patient outcomes.

Christensen and colleagues (2008) concurred with this finding and in their review the training of GPs in depression care and provision of clinical guidelines on their own were not associated significantly with improved outcomes. They hastened to add that this does not imply that interventions would be more effective without this element, but rather play a role in influencing clinical practice, team collaboration and referral routes.

7.1.2 Consultation-liaison model

This is a variant of the training and education model and seeks to improve skills of primary care professionals and improve quality of care through improvement in skills. However, this model promotes an ongoing educational relationship with the primary care team, to support them in caring for specific patients undergoing care. An example would be regular practice visits by a psychiatrist to discuss ongoing care.

Doughty (2006) outlines four elements of the consultation-liaison model as described by Bower and Sibbald:

- Regular face to face contact between psychiatrist and primary care team
- Psychiatric referral only after discussion at face to face meeting
- Some cases managed in primary care
- If referral does take place, feedback to primary care team and management by them.

In their review Bower and Gilbody (2005) concluded that there was inconsistent and limited evidence to comment on the consultation-liaison approach to management of mental health in primary care, a finding supported by Doughty (2006).

A more recent study by Cape and colleagues (2010) identified five studies for inclusion in their review that focused on management of depression in primary care. They found no significant effect of this model on antidepressant use, or short or longer-term outcomes. However, the evidence base was very limited and further research would be required to boost the understanding of this approach and how it might be used in conjunction with other models, e.g. collaborative care.

7.1.3 Graduated access

This approach can modify the point at which people access services and may involve 'graduated access' including use of 'direct health services' which people can access without face-to-face contact

with professionals and which maximises the use of new technology. No systematic reviews of this approach were identified.

7.1.4 Stepped care

This is a system for delivering and monitoring treatment with the aim of providing the most effective and least burdensome treatment to the patient with a self-correcting mechanism built in. So if someone does not benefit from initial intervention, they are 'stepped up' to a more complex intervention. Typically interventions start at low-intensity and move up rather than down. This approach can be used in primary care and is promoted by NICE guidelines for treatment and management of depression in primary care and secondary care (NICE 2009).

Evidence of effectiveness

According to the review by the NCCMH (2010) this model is increasingly common and is set out in various NICE guidelines (2009, 2011) but there is a limited evidence-base of mental health studies to evaluate the approach. The authors report on a review by Bower and Gilbody (2005) who set out three assumptions for a framework for stepped care in the management of depression. Namely, equivalence of clinical outcomes between minimal and more intense interventions, efficient use of resources, and acceptability of low-intensity interventions. On the basis of these assumptions, they reviewed existing evidence and found some limited support for clinical and cost effectiveness of this approach as a way to deliver psychological therapies but no evidence for overall effectiveness. Stepped care has been considered outside of the field of depression, often as part of collaborative care approaches. There is some evidence that the integration of stepped care into a more complex model may be associated with better outcomes but no direct evidence.

7.1.5 Case management

An individual healthcare professional takes responsibility for co-ordination of care but is not necessarily directly involved in provision of intervention. Gensichen et al (2006) describe Norris et al. (2002) five elements in relation to case management:

- Identification of patients in need of service
- Assessment of individual needs
- Development of treatment plan
- Co-ordination of care
- Monitoring outcomes and altering if favourable outcomes not achieved.

Gensichen and colleagues (2006) was the only systematic review identified that focused on case management. The authors reviewed 13 studies of case management and found improved outcomes (symptom improvement, remission, response, and adherence). This led to the conclusion that case management is an effective intervention to improve management of major depression in primary care. However, the majority of studies were from the US and the health care system differs greatly from the UK. Further consideration of the transferability of this approach, along with a fuller analysis of the increased costs associated with 'complex' management is required.

In 2008 Christensen and colleagues conducted a detailed review that considered three elements of published studies in detail: components of care, interventions and study intentions. They were more successful in identifying papers from outside the US and concluded that case management was

associated with better outcomes for people with depression than usual care. They extracted several elements associated with more effective practice:

- Direct feedback to GPs
- Provision of some additional intervention (e.g. psychological therapy)
- Case manager with mental health background or trained para-professionals.

7.1.6 Chronic Care Model (CCM)

The chronic care model for management of illness, in this case depression, was devised by Wagner and reported in Williams et al. (2007). The review by Williams et al. examined 28 studies, all of which had at least 3 to 4 elements of CCM as noted below:

- decision-making support for clinicians
- self-management support for patients
- delivery systems redesign
- clinical information systems in place
- health care organisation
- community resources available.

Given the range and scope of the studies involved, it was not possible to do a meta-analysis but they did identify enough evidence to conclude that there was support for the benefits of care management, and specifically approaches that were multi-faceted. They felt the CCM framework was useful for understanding outcomes better and for identifying the key elements of successful interventions. They recommended that policy-makers promote efforts that include well-trained care managers, patient support and education, longitudinal monitoring and decision support for medication management to strengthen the integration of mental health specialists.

7.1.7 Disease management

Interventions designed to manage or prevent chronic conditions using a systematic approach to care and using multiple treatment staff and modalities were discussed in Duncan et al (2010); however, details about specifics of workforce etc were not found in the report. Nonetheless, the authors conclude that the majority of patients who were treated by GPs as part of the intervention had better outcomes than patients receiving usual care.

7.1.8 Collaborative care

This model involves all sectors of care to ensure a comprehensive and integrated approach to mental and physical healthcare. Typically the programme is co-ordinated by a case manager and supported by a multi-disciplinary team. There is joint determination with service user regarding intervention plans and review. It can be summarized as follows:

- Case manager role in primary care
- Close collaboration between primary care and mental health specialists
- Mechanisms to collect and share information on individual patients
- Working to a protocol.

Collaborative can take into account elements of other models e.g. stepped care. Compared with training/education models for example, there is less involvement of primary care staff as patients are likely to have more severe disorders.

Evidence of effectiveness

The evidence reviewed in NCCMH (2010) focuses on depression but does not include significant chronic physical health problems, and the limitations of the evidence are clear given the size of the dataset. The authors concluded that the evidence reviewed was not sufficiently strong enough to generate recommendations for the use of a collaborative care model for depression. The same conclusion was drawn by authors of the review for GAD (National Collaborating Centre for Mental Health 2011). They were unable to draw substantive conclusions from the evidence available specifically on GAD, and had further concerns given the studies originated in the US where the health care system is very different to the UK.

However, evidence from previous reviews, (Gilbody et al. 2003, Gilbody et al. 2006) support collaborative care as an effective approach for managing depression in primary care. In a review of 37 studies Gilbody and colleagues (2006) concluded that collaborative care was more effective than standard care in short and longer-term outcomes for people with depression. Bower et al. (2006) conducted a meta-regression to identify 'active ingredients' in collaborative care, but failed to identify a significant predictor of the effect of collaborative care on antidepressant use. They found key predictors of depressive symptoms included systematic identification of patients, professional background of staff and specialist supervision. However, a major limitation of both reviews is the over-reliance on studies from the US. Until recently there were no definitive UK trials in the UK. Currently a team from the University of York are conducting Phase III of the CADET pilot trials having developed and pilot tested a UK collaborative care protocol. The results of the RCT are due in 2012.

In 2007 the Task Force on Community Preventive Services recommended depression care management in primary care setting for older people with major depression or chronic low levels of depression (dysthymia) on the basis of sufficient evidence of effectiveness in improving short-term depression outcomes (Steinman et al. 2007). A subsequent review in 2010 went on to conclude that collaborative care had strong evidence based in improving depressive symptoms, adherence to treatment, response to treatment and remission and recovery from depression.

Finally Duncan et al (2010) reviewed 9 reviews of reviews and 35 RCTs which looked at different models of service delivery. They concluded that there was evidence to support collaborative care as an effective management approach for mental health illnesses like depression. However, the evidence indicated the results were more significant for patients with more severe illnesses rather than patients suffering from mild depression.

Shared decision-making

One important aspect of collaborative care involves shared decision making between professional and patient. It is a policy directive in some parts of the UK; however, there is insufficient evidence available to comment on the impact of shared decision-making in primary care (Duncan et al. 2010).

7.1.9 Replacement/referral model

In this model the primary responsibility for the management of the presenting problem is passed to the specialist for the duration of treatment. This model is most often associated with psychological therapy.

Bower and Gilbody (2005) identified eight reviews of differing quality and therapies. However, reviews concluded that the approach had clinical evidence of support at least in the short-term. Again this approach would be for patients with more severe mental health problems and rather than directly involving primary care, is handled by a mental health specialist.

Attached professional model

A variation of the replacement/referral model, a mental health professional has direct responsibility for care, usually in primary care, focusing on the treatment of the problem. The co-ordination of care remains with the GP or primary care team. Contact with patient is limited to treatment with little or no follow-up beyond specific intervention offered. No review-level evidence was identified to comment on this approach.

7.1.10 Home and community-based outreach

One review was identified that explored outreach work as a model to identify and reduce symptoms of depression among older people (van Citters and Britels 2004). There were methodological limitations and generalisability difficulties with the 14 studies included; nonetheless, they concluded that there was some support for outreach services in identifying isolated older adults and improving psychiatric symptoms.

7.1.11 Gateway workers

Guidance issued by the Department of Health (2003) introduced the role of a Gateway worker. Policy argues that Gateway workers are needed at clinical and strategic levels. They can work as member of local services to support delivery of assessment and treatment or in an emergency situation. At a strategic level, Gateway workers can support planning and integration of services through leadership and service development.

While they recognised the role of local Gateway workers would vary to reflect local practice and structure, some suggestions include:

- Provision of a single point of access for people in crisis and their families
- A round-the-clock response for assessment and triage
- Co-ordination of the next steps in care, such as referral to specialist services
- Strengthening assessment, triage and onward referrals
- Support and training for primary care mental health staff
- Liaise with A&E if necessary
- Work with service users and carers to help with treatment and care options
- Input into protocol developments.

No evaluation of the role of Gateway workers has been identified to date so it is not possible to comment on the impact of the role.

7.1.12 Primary care graduate mental health workers

In 2003, the Department of Health in England set out plans for a second complementary role in the developing mental health workforce, the primary care graduate mental health worker (PCGMHW). The key duties of the role are to:

- Support the delivery of brief, evidence-based effective interventions and self-help
- Strengthen information for patients
- Support development of practice-based information systems and outcome measures
- Improve service users' satisfaction with care
- Improve knowledge within the practice about resources for people with mental health problems.

A national evaluation of the role of the PCGMHW was published in 2006 by the National Primary Care Research and Development Centre (Harkness et al 2006). However the evaluation focused mostly on process outcomes rather than impact. More research is needed to determine the impact of this relatively new role.

7.1.13 On-site mental health workers

Harkness and Bower (2009) looked at the impact of an on-site mental health worker on the behaviour of primary care professionals (PCP). Focusing on the replacement model, they defined mental health workers as professionals able to deliver psychological therapies and psychosocial interventions as a distinct activity and not solely as part of normal primary care consultations or by those employed by or attached to the PCP working on site or as part of the same clinical team. In this instance the review focused on outcomes associated with professional behaviour change rather than patient improvement. They found a reduction in PCP consultations when referral to mental health worker had been made, a reduction in referral to offsite mental health workers and finally a reduction in the likelihood of prescriptions for psychotropic medication. All effects were small and no effect on the broader practice population was noted.

Improving access to Psychological Therapies (IAPT) is part of an ongoing pilot in England that will see the training of 3600 therapists over the three year lifespan of the work. The scheme uses a stepped care approach to offer both high and low intensity therapies including CBT, CCBT, guided self-help, PST and BA.

7.2 Cost effectiveness of different models of care

One review (Gilbody S., Bower PJ. et al. 2006) considered the cost effectiveness of collaborative care and case management. They identified 11 full economic evaluations of the approach and concluded that there was near uniform evidence to state that collaborative care/case management led to improved outcomes for patients, but were associated with increased costs to primary care and required additional investment. Education interventions were not linked to increased costs, but did not demonstrate clinical impacts (as described above).

Another review (van Steenberg-Weijenburg et al. 2010) examined the cost effectiveness of collaborative care for management of depression in primary care. They identified 8 studies, and although the quality of information provided was mixed, all concluded that collaborative care was effective in primary care, but more expensive than usual care, particularly in the first year. However, the authors felt that it was not possible to draw out policy decisions based on current evidence given the variation in quality. They recommended that information on the cost effectiveness of collaborative care in other settings is needed before it could be broadly implemented.

7.3 Complex System Interventions for the Treatment of Depression in Primary Care – Gunn et al

In an analysis of GP systems, currently in place in Australia for the treatment of depression, Gunn et al (2010) using a Normalised Process Theory (NPT) framework, organised their findings around the concepts of (a) coherence (b) cognition (c) collective action and (d) reflexive monitoring. In doing so they sought to address questions relating to the requirements for an effective model and system for the treatment of mental health within a primary care setting. While the findings may not completely generalise to the UK, they nevertheless highlight a range of potentially important factors which need to be dealt with to make any system of care more effective.

In terms of treatment *coherence* Gunn et al saw the need for clear boundaries around who has or has not a given mental health condition, and for clear agreement on how any diagnosis is to be achieved. This common agreement was seen as fundamental for the care and treatment of patients. Frequently this common agreement was lacking. Distinguishing between distress and a mental health condition, for example, was frequently perceived as presenting seemingly insurmountable problems given the limited time involved. In the wider field of diagnosis this issue is frequently referred to as one of sensitivity and specificity. Sensitivity is defined in terms of the proportion of true cases that are correctly identified; and specificity, on the other hand, is viewed as the proportion of true negative cases that are correctly identified. Diagnostic tools, which might have facilitated this process, were frequently viewed in terms of presenting information that was perceived as 'obvious', rather than as a check on a potential condition, or for the purpose of determining or recording change. This perceived lack of clarity and conciseness (diffuseness) also created considerable ambiguity around treatment, it was suggested.

Cognition requires an engagement with a shared set of techniques and clear categorisation. Ironically, the intended framework for such an ordered structure, i.e., the DSM and ICD, was little used. GPs claimed knowledge of the criteria required for a condition, but they in general questioned the usefulness and applicability of these criteria for general practice. Patients were frequently perceived to be in a 'grey zone' and in the words of Gunn et al "GPs outlined that their work was to explore the set of presenting symptoms or problems using clinical and communication skills. They placed this in the context of the patient with their current and prior knowledge of the person and their social situation." Part of this hesitancy with regard to diagnosis may also have related to the fact that many GPs felt that they lacked the experience to provide either an adequate diagnosis or treatment.

The need for *collective action* within the GPs surgery, in terms of the organisation of care, was seen as being required within an agreed framework. This was described in terms of (a) skill set workability (b) contextual integration (c) interactional workability and (d) practice meetings. Skill set workability referred to how work was allocated and performed. The main issue around this area was often the referral system; to whom should the patient be referred and what were the logistics around this decision process? This related to a frequent lack of contextual information where the procedures and structures around managing patient care were often felt to be inadequate. Further, there was a general feeling that greater interactional working relationships and accountability across disciplines was required. A number of internal and external factors are required for this construct (effective action) to be effective. In particular the opportunity was needed for staff within primary care organisations to self-assess and evaluate the effectiveness of treatment interventions. The lack of an electronic system for the recording of diagnostic information was viewed as a major debilitating factor. For example, it appeared that few if any GP practices could produce a list of people currently being treated for depression, other than those currently being prescribed antidepressants.

Within the current GP environment the options for *reflexive monitoring* were perceived to be limited. This was seen as being due to financial constraints and the organisational infrastructure within which the service was provided. However, there was a felt need for review pathways to be established for reviewing information between different types of health professionals. Follow-up information on patients was down to individually tailored appointments, but there was no systematic method for checking that these follow-up meetings had occurred. Further, there was no consensus on how often these follow-up visits should occur.

In a separate review of literature relating to stakeholders, Gunn and associates summarised their finding as shown below. Many of the observations reported within GP Surgeries had echoes of similar content when stakeholders were interviewed, especially around the time required to deal with issues relating to mental health. There was also the expression of the need for a joined up system of care that linked the different types of providers.

The patients' perspective

In the table below Gunn et al present a neat summary of findings from their published research involving how stakeholders perceive the requirement for treatment.

Table 1 Summary of stakeholders informed conceptual designs of an effective model and system of depression care (Gunn et al., 2010).

Domain	Criteria
Requirements in the Relational Domain	Stakeholder want to be 'listened to,' 'understood,' 'empathised with,' 'supported,' 'reassured,' and 'encouraged' by care providers (particularly GPs), receive depression care that is 'holistic,' 'tailored to the individual,' and 'involves the patient in planning.'
Requirements in the Competency Domain	Stakeholders want 'competent and thorough diagnosis and management,' 'assessment for severity and suicide risk,' 'appropriate and timely referrals,' 'incorporation of social factors,' 'monitoring and follow-up,' 'education about depression,' and 'prescription and management of medication.'
Requirements in the Systems Domain	Stakeholders want 'funding for longer consultations and follow-up,' 'systems to enable monitoring,' 'timely referral through a range of treatment options,' 'the integration of primary care and other providers,' and 'professional support to general practice.'
How can the effectiveness of the Relational Domain be assessed?	'Measuring patient satisfaction,' 'surveying patients, carers, GPs and consumer groups,' and 'monitoring patient recovery.'
How can the effectiveness of the Competency Domain be assessed?	'Measuring whether there is less reliance on medication and medical model,' 'monitoring recovery and diagnosis rates,' 'monitoring patients' capacity to function physically, socially, and in the community,' and 'developing appropriate prescribing.'
How can the effectiveness of the Systems Domain be assessed?	'Measuring for 'increases in referral options and services in regional areas,' 'patient satisfaction,' 'access and affordability of services,' 'monitoring referrals made by GPs,' 'monitoring the duration and quality of follow-up,' monitoring the number of patients seeking help,' and 'monitoring collaboration.'

Common themes across practitioners and patients were the need for more time and resources to be made available for the diagnosis, treatment and management of clients presenting with potential mental health problems. Patients desired to be fully involved with the treatment regimen and it was acknowledged by the practitioners that this buy-in by the patients was essential for treatment to be successful. The competent diagnosis and management of the condition was seen by both the patient and the practitioner as essential. However, the practitioners were concerned about their competence to deal with issues around mental health diagnosis and in the allocation of appropriate case management. Patients on the other hand expressed a desire for the diagnosis to be within a holistic context that took into consideration both the mental health condition and the person's wider circumstances. Both the practitioners and the patients had concerns regarding the monitoring and follow-up of treatment interventions. The monitoring of patient experience was seen as a necessary outcome by the patients. However, monitoring should extend to the success or otherwise of the treatment intervention. Availability and access to services was important for clients, while practitioners had concerns around finding the appropriate services for a given patient.

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Glossary

Adapted from the following website and added to by Fullerton and Burtney.

www.smhft.nhs.uk/help-a-advice/understanding-mental-health/66-understanding-mental-health-jargon (accessed March 2nd 2011)

Anti-psychotic medication

Medication used to treat psychosis. There are several different types of anti-psychotic medication.

Assessment

When someone is unwell, health care professionals meet with the person to talk to them and find out more about their symptoms so they can make a diagnosis and plan treatments. This is called an assessment. Family members should be involved in assessments, unless the person who is unwell says he or she does not want that.

Behavioural activation

Behavioural tasks related to reducing avoidance, graded exposure and initiating positively-reinforced behaviours.

Care pathways

This is the route someone who is unwell follows through health services. The path starts when someone first contacts health services – through their GP or an accident and emergency department, for example. The path continues through diagnosis, treatment, and care.

Carer

A friend or relative who voluntarily looks after someone who is ill, disabled, vulnerable, or frail. Carers can provide care part-time or full-time.

Child and Adolescent Mental Health Services (CAMHS)

CAMHS provide individual and family work helping children and young people under the age of 18 who experience emotional difficulties or mental health problems

Chronic condition

A condition that develops slowly and/or lasts a long time.

Cognitive behavioural therapy (CBT)

This is a way of helping people to cope with stress and emotional difficulties by encouraging them to make the connections between how we think, how we feel, and how we behave.

Computerised cognitive behaviour therapy (CCBT)

Self-directed CBT accessed via computer system.

Crisis

A mental health crisis is a sudden and intense period of severe mental distress.

Dual diagnosis

When two or more problems or disorders affect a person at the same time.

Early intervention service

A service for people experiencing their first episode of psychosis. Research suggests that early detection and treatment will significantly increase recovery.

Eye movement desensitization and reprocessing (EMDR)

Technique that uses bilateral stimulation while the person focuses on memories and associations to help the brain process flashbacks and make sense of traumatic experience

General practitioner (GP)

GPs are family doctors who provide general health services to a local community. They are usually based in a GP surgery or practice and are often the first place people go with a health concern.

Integrated Services

Health and social care professionals (such as social workers) working together in one team to provide a comprehensive range of support.

Interpersonal therapy (IPT)

Therapy that focuses on current relationships rather than past and on interpersonal processes not internal process to help link moods and impact on interpersonal relationships.

Intervention

An 'intervention' describes any treatment or support that is given to someone who is unwell. An intervention could be medication, a talking therapy, or an hour spent with a volunteer.

Mental health

Someone's ability to manage and cope with the stress and challenges of life, and to manage any diagnosed mental health problems as part of leading their normal everyday life.

Mild depression

Few, if any, symptoms in excess of the 5 required to make the diagnosis, and symptoms result in only minor functional impairment.

Moderate depression

Symptoms or functional impairment are between 'mild' and 'severe'.

Multi-disciplinary team

A team made up of a range of both health and social care workers combining their skills to help people.

National institute for clinical excellence (NICE)

An organisation responsible for providing guidance on best practice and the prevention and treatment of ill health.

National Service Frameworks (NSF)

A set of quality standards for services issued by the Department of Health.

Older Adults

Adults aged over 65.

Patient

Someone who uses health services. Some people use the terms service user or client instead.

Primary care

Health services that are the first point of contact for people with health concerns. Examples include GP surgeries, pharmacies, the local dentists, and opticians.

Psycho-educational groups

Group work, using psychological therapy techniques, that address mental and emotional problems such as anxiety, depression, trauma, and severe stress.

Psychosis

A mental state in which someone may show confused thinking, think that people are watching them, and see, feel, or hear things that other people cannot.

Respite care

An opportunity for a carer to have a break.

Secondary Mental Health Services

Specialist mental health services usually provided by a Mental Health Trust. Services include support and treatment in the community as well as in hospitals.

Sensitivity

Sensitivity of an instrument refers to the proportion of those with the condition who test positive. As the sensitivity of an instrument increases, the number of false negatives it detects will decrease.

Severe depression: Most symptoms, and the symptoms markedly interfere with functioning. Can occur with or without psychotic symptoms.

Social care

Social care describes services and support that help people live their lives as fully as possible, whereas health care focuses on treating an illness. Both types of care are offered as a combined package of support to people with mental health problems.

Social inclusion

Ensuring that vulnerable or disadvantaged groups are able to access all of the activities and benefits available to anyone living in the community.

Specificity

Specificity of an instrument refers to the proportion of those who do not have the condition and test negative. As the specificity of an instrument increases, the number of false positives will decrease.

Subthreshold depressive symptoms

Fewer than 5 symptoms of depression.

Trauma-focused cognitive therapy

Trauma-focused cognitive therapy: identifies and modifies misrepresentation of trauma and aftermath that lead the person to overestimate the threat

SECTION E

Comparison of review level evidence with research questions and key principles of an ideal service model

The overall approach adopted in the current rapid review was a 'Realist Synthesis' approach whereby the team sought to identify the principles of an ideal primary care mental health service model and compare review level evidence with this model. These principles and associated research questions have been presented in Section C of this report. The following discussion aims to compare the extracted review level evidence in relation to these research questions and key principles. The concluding narrative considers to what extent review level evidence addresses the overall research question: ***“What aspects of primary care are effective in the prevention, recognition and management of mental health issues across the lifespan; for whom do they work, in what circumstances and why?”***

1. *What does the evidence tell us about the effectiveness of assessment services/processes in primary care?*

As outlined in the Bamford Report on mental health promotion (2006), primary care has a crucial role to play in the early identification of common mental health problems. While methods of assessment will ultimately vary depending on the mental health disorder or sub-population under consideration, standard guidelines consistently emphasise the need for comprehensive assessments based on standardised criteria. Furthermore, guidance emphasises the need for a holistic assessment which considers potential co-morbidities both mental and physical. This section summarises review level evidence from Section D in terms of the effectiveness of assessment services/processes in primary care.

The review-level evidence would appear to suggest that there are significant variations in assessment practices and processes in and between client groups. Despite the availability of a range of standardised instruments that are specific to particular client groups and/or disorders, there is little evidence to suggest consistency in their use.

Review level evidence of the clinical and cost-effectiveness of methods and processes to identify post-natal depression and other disorders in post-natal settings is lacking. The evidence that is available suggests a lack of consensus about recommended assessment methods and a lack of a uniform screening instrument for the detection of depression among this sub-group. For example, while the EPDS has been recommended by the RCP (RCP 2002), there remains a distinct lack of research evidence to inform the optimum timing and frequency of its use. Additionally, a recent systematic review of assessment methods for PND found that 14 different identification strategies have been validated. Review level evidence suggests that just one Cochrane review has considered antenatal psychological assessments. While the research findings indicate increased awareness of the risk factors for mental health disorders among post-natal women, the authors concluded that they could not comment on the efficacy of such assessment methods in the public health context (Austin et al 2008). Furthermore, cost-effectiveness analysis suggests that formal identification methods do not seem to represent value for money (Pauden et al 2009).

Review studies focusing on the assessment of depression among the general population indicated that a significant proportion of people with depression are not diagnosed when they attend primary care (Williams et al. 1995; Mitchell et al. 2009 (National Collaborating Centre for Mental Health 2010)). Mitchell and colleagues go on to suggest that while GPs are able to rule out depression in most people who are not depressed with some accuracy, difficulty arises in diagnosing depression in all true cases. With specific reference to the older population, Ell (2007) and earlier, Ahururu-Drisco and colleagues (2004) argued that there was poor recognition of psychiatric illness, specifically depression, among older people by GPs and health care workers generally. Others argue that even if depression is recognized, it is often left untreated with only a small minority receiving treatment or

referral (Illiffe 2007). Given this evidence, as part of a step-care approach to depression, NICE (2010) recommend two initial screening questions (Whooley questions) for high-risk populations before proceeding to further assessment:

1. During the last month, have you often been bothered by feeling down, depressed or hopeless?
2. During the last month, have you often been bothered by having little interest or pleasure in doing things?

A recent review of screening tools (National Collaborating Centre for Mental Health 2010) suggested that the data supports the ongoing use of the Whooley questions as first stage of case identification in primary care. However, given the lack of specificity, people with positive responses would benefit from a more detailed clinical assessment. There was no one tool identified as being the most effective for the clinical assessment with variations in scales in terms of specificity and sensitivity.

Considering the evidence on assessment of depression among individuals with chronic physical conditions, Thombs et al (2008) found that depression screening tools are reasonably accurate in patients with CVD, but there are few examples of screening tools or screening tool thresholds with demonstrated accuracy in more than one sample of patients with CVD. Thombs et al note that in primary care settings, the use of depression screening questionnaires without substantial organisational systems to support management and follow-up provides little or no benefit.

In contrast to the evidence which suggests poor recognition of depression in older adults, the current review identified strong evidence demonstrating the effectiveness of screening tools for the detection of dementia. Holsinger et al (2007) identified 25 available screening instruments and reported that screening tests to identify dementia in older people in primary care settings vary in diagnostic accuracy and administration time. While no single instrument is ideal for all settings, the authors suggest that clinicians should select one primary tool and familiarise themselves with it in order to become more efficient in screening for dementia. Harvan et al (2006) identified 20 relevant studies in their review and concluded that the Mini Mental State Examination (MMSE) has high sensitivity and specificity in outpatients older than 65 years when age and education specific cut-offs are used.

As outlined in previous sections, while individuals with depression tend to seek help relatively promptly following the initial onset of symptoms, individuals with anxiety disorders wait on average 15 years before seeking help in comparison. Wittchen (2002) concludes that recognition of GAD in primary care is poor, resulting in a high proportion of people receiving inappropriate or no treatment. In a recent survey (McManus 2009) only 33% of patients with GAD reported receiving treatment. In terms of effectiveness of assessment methods, NICE (2011) concluded that, with regard to ultra brief instruments (1-3 items), the GAD-2 had the best diagnostic accuracy for use in primary care while the GAD-7 had the best diagnostic accuracy among the longer instruments considered.

In terms of assessment for alcohol disorders, the NCCMH (2011) review for the development of the NICE (2011) guidelines on the diagnosis, assessment and management of harmful drinking and alcohol dependence identified three tools to measure alcohol dependence. These were the AUDIT (Babor et al., 2001); the SADQ (Stockwell et al., 1979); and the Leeds Dependence Questionnaire (LDQ) (Raistrick et al., 1994). Despite these guidelines the current review has not identified evidence which points to the extent of the use or effectiveness of these processes in current practice.

The review of literature of psychosis and schizophrenia found no systematic reviews on the effectiveness of assessment processes or methods of early detection. McCrone et al (2011)

concluded that early detection services for psychosis are not routinely provided and provision is currently very limited. While review level evidence of the effectiveness of assessments for these disorders is lacking, there is limited review level evidence in terms of cost-effectiveness. McCrone et al. (2011) found some evidence that early detection services can reduce the rate of transition to full psychosis at an additional cost of £2,948 (2008/9 prices) per patient, compared with £743 for standard care. In a separate investigation of the effectiveness of specialist early detection services, Mc Crone et al (2011) estimated that, compared to standard care, early detection services for patients with prodromal symptoms of schizophrenia are cost-saving overall.

Given the backdrop of 30 to 40 years of civil conflict in Northern Ireland, PTSD poses a substantial public health burden and challenge to primary care services (Ferry et al 2008). Examination of review level evidence suggests that various well-validated assessment tools exist for screening purposes with one review being identified which explored their relative effectiveness (Brewin 2005). The author identified 13 available tools, and concluded that the questionnaires with greatest potential for use in primary care were the Trauma Screening Questionnaire (10 items) and the SPAN (4 items). Since the publication of this review, the PTSD-8 has been validated and has potential for use in primary care. There is a lack of evidence however which indicates if and to what extent these assessment tools are being utilised in primary care settings in Northern Ireland.

Isacsson and Rich (2001) who published primary care guidelines for the management of patients who deliberately self-harm, emphasised that these patients should be assessed as comprehensively and thoroughly as soon as possible, including for the risk of suicide. These guidelines are indeed mirrored in other sources of guidance which underline the need of identification of known risk factors, individual characteristics and mental health disorders associated with suicide (NICE 2004). Gaynes et al (2004) concluded that while screening tools can reliably identify people at risk of suicide, they also have the potential to falsely classify people at risk, creating an additional burden on health care staff. There have been inconsistent results around their effectiveness in reducing risks of suicide, with outcomes largely dependent on the quality of the aftercare and support offered following referral.

Despite the obvious gaps in review level evidence with respect to screening for suicide risk, Gaynes et al (2006) tested the Symptom Driven Diagnostic System for Primary Care and found that one item (thoughts of death) was effective in the detection of patients with a plan to commit suicide (Gaynes et al 2006). Such a single item test could prove useful in detecting at-risk patients who could undergo further evaluation of risk factors.

So in summary, a variety of tools and processes for mental health assessment exist. The available evidence however suggests that there is considerable variation in practices relevant to particular psychiatric conditions and across client groups. There is little evidence of consistent use of standardized instruments and it can be concluded from the evidence reviewed that assessment processes are inconsistent and often reactive.

2. *What circumstances help or hinder the effectiveness of assessment services/processes and what are the implications of this/these on targeted and accurate diagnosis?*

A variety of circumstances appear to impact on the quality of assessment services/processes. With primary care positioned as the gateway to more specialist mental health services and treatment, the majority of mental health disorders are managed within this sector. Given the range and complex combinations and presentations of mental health disorders and the influence of social, environmental and cultural factors, it is understandable that GPs and other primary care providers face a difficult challenge in the accurate identification of such disorders. One notable issue that

undoubtedly hinders the effectiveness of assessment processes and which will be considered in detail in subsequent paragraphs is the significant proportion of GPs who have not received specific mental health training. This section summarises review level evidence of the factors that help or hinder the effectiveness of assessment processes and the impact these have on targeted and accurate diagnosis. The review-level evidence points to three circumstances in particular - effectiveness research, treatment-seeking behaviours and co-morbidity.

One recurring theme emerging from evaluation of review level evidence is the lack of 'effectiveness research' and the lack of a uniform validated assessment instrument for the detection of each specific disorder. With regard to PND, there is a lack of consensus in the use of assessment instruments with regard to timing and frequency. Similarly, beyond the use of Whooley questions for broad assessment for depression, review evidence presents an array of assessment tools that are widely used. To conclude that this lack of consensus may hinder effective assessment; however, is to assume that one uniform assessment instrument for each disorder or sub-population is more effective. Further research is therefore required to determine the effectiveness of these numerous instruments with respect to different disorders and sub-populations. In addition to this lack of reliable evidence of clinical effectiveness, there is a lack of review level research of cost-effectiveness, particularly in relation to depression and GAD assessments. This gap in information potentially hinders the widespread assessment of individuals with these disorders, as GPs and practice managers will be uninformed as to whether the widespread use of such assessments is economically viable for their practice.

The second major theme emerging from the literature which may hinder accurate and targeted diagnoses is the lack of, and substantial delays in, treatment seeking among individuals with mental health disorders. This phenomenon is particularly prevalent in relation to anxiety disorders and substance abuse disorders with individuals waiting on average 22 years and 15 years before seeking treatment (Bunting et al, pending). Wittchen (2002) suggests that just 33% of individuals with GAD have received treatment. These delays in help seeking mean that there are substantial numbers of individuals with mental health needs who are enduring their problems without appropriate professional help. NICE, and indeed the Bamford report on health promotion, underline the importance of early detection of symptoms in increasing the chances of effective treatment (NCCMH 2011; Bamford 2006). In the absence of effective treatment, the risks of individuals developing a more complex profile of mental health disorders and also associated physical health problems are increased (2008).

A further factor that may hinder the effective identification of mental health disorders, and directly linked to the theme of 'treatment seeking', is the impact of co-morbid disorders. The NCCMH, for example, outline the range of co-morbidities and complex presentations that are known to be associated with GAD which include chronic physical health conditions, other anxiety and depressive disorders and tendency for alcohol misuse (NCCMH, 2011). The particular challenge presented by co-morbid mental health presentations once again underlines the need for increased training among GPs, and raised awareness of additional physical and mental disorders that are likely to be associated with a particular mental illness.

Whilst focusing specifically on mental health among the older population, Eil (2007) and Ahururu-Drisco (2004) identified a number of features that may hinder recognition of mental disorders: denial of problems and symptoms by the individual; insidious nature of onset; co-morbidity; tolerance of unusual behaviours in remote areas; acceptance of cognitive decline in older people; and lack of trained staff with expertise in detection of disorders. Further research is however required to determine if these specific influences apply to the wider population. With specific reference to dementia, the current review suggests that despite the availability of screening tools,

dementia is probably under-diagnosed and under treated with an estimated 50% of primary care patients over 65 not diagnosed by their primary care physicians. Iliffe et al (2009c) suggest this problem of under-diagnosis is probably not due to a lack of diagnostic skills, but the interaction of case-complexity, pressure on time and the negative effects of reimbursement systems.

In their review Koch et al (2010) identified three factors which may have an impact on dementia diagnosis within primary care. Doctor factors consist of barriers such as diagnostic uncertainty or insufficient knowledge or experience, as well as disclosing the diagnosis, stigma attached to dementia, and therapeutic nihilism. Patient or societal factors included stigma, as well as delayed presentation which could be because of stigma, but also because of many other reasons. Finally the systems factors included time constraints and lack of support (which were the most often-identified factors), as well as financial or remuneration issues.

Despite the aforementioned evidence that focuses on the various aspects which may hinder effective assessment and identification of mental health disorders, review level evidence also provides comprehensive evidence on the prevalence of mental disorders and their risk factors which offers a useful reference to primary care practitioners in the identification of mental health disorders. The incorporation of information about risk factors into assessment approaches is demonstrated in the recommended approach for depression assessment. NICE concludes that screening for depression and other mental illness should only be undertaken for high-risk populations rather than general population screening. High-risk groups identified included people with a history of depression, significant physical illness causing disability, or other mental health problems e.g. dementia (NCCMH 2010). This guidance is now widely implemented in GP practices in terms of targeting assessment processes. Further research however is required to determine the impact of these targeted assessments in detecting other mental disorders particularly among individuals whose profile does not conform with the profile of 'high risk groups'.

So in summary, three factors are seen to hinder the effectiveness of assessment practices/processes (effectiveness research, treatment-seeking behaviours and co-morbidity). These factors highlight the need for more work to be done to identify the effectiveness of standardised approaches to assessment in order to 'convince' primary care workers in particular of their usefulness in diagnoses practices. The need for greater awareness among the general population of the importance of treatment-seeking at an early stage in the progression of illness is identified. The impact of co-morbidity on assessment effectiveness needs further investigation and consideration. Targeting high-risk groups with information about risk-factors appears to help in screening programmes and early identification of mental illness

3. *What evidence is there of the effectiveness of primary care services building on and working with local authority community services, with colleagues in secondary specialised services, and services in the non-statutory sector in order to ensure continuity of care across all phases of care and service delivery?*

One of the key aspects of the role of primary care in the management of mental health disorders is ensuring that there is continuity of care across all phases of care and service delivery. NICE guidance underlines this role stating that the best primary care services build on, and work with the local authority community services, with colleagues in secondary specialised services, and services in the non-statutory sector (NCCMH, 2010). GPs have a vital role to play, not only in the initial assessment of individuals, but in ensuring communication with the individual and between the various healthcare professionals involved in the treatment process. The current review has devoted a detailed section to the appraisal of evidence regarding models of quality improvement that consider numerous treatment models and approaches to the management of mental health disorders. These

approaches are outlined in detail in Section C. In answering the question posed, the review-level evidence focuses on different service delivery models, including case management, collaborative care, stepped care, chronic care, replacement referral and home-based approaches.

In terms of 'case management', Gensichen and colleagues (2006) in their review of 13 studies of case management of major depression, found strong evidence of improved outcomes (symptom improvement, remission, response, and adherence). This led to the conclusion that case management is an effective intervention to improve the management of major depression in primary care. Further research however is required on the generalisability of these findings to a UK setting, given that the majority of studies included in the review were based in the US. In a review of studies that also considered papers outside the US however, Christensen and colleagues (2008) concluded that the following elements of case management were associated with more effective practice: direct feedback to GPs; provision of some additional intervention (e.g. psychological therapy); case manager with mental health background or the use of trained para-professionals. These findings underline the importance of communication among different sectors in ensuring effective treatment management and in ensuring the effectiveness of case-management as a service model.

Moving on to collaborative care, while reviews by the NCCMH found insufficient evidence to recommend the use of collaborative care in the treatment of depression and GAD, numerous previous reviews provided a strong evidence base for the effective use of this model in the management of individuals with mental health disorders (Duncan et al, 2010; Steinman et al, 2010; Steinman et al. 2007; Gilbody et al. 2006; Gilbody et al. 2003). For example Steinman et al. (2010) concluded that collaborative care had a strong evidence base in improving depressive symptoms, adherence to treatment, response to treatment and remission and recovery from depression.

Stepped-care is a system for delivering and monitoring treatment with the aim of providing the most effective and least burdensome treatment to the patient, and is advocated in the NICE guidelines for the treatment and management of depression in primary and secondary care (NICE 2010). According to the review by the NCCMH (2010) this model is increasingly common and is set out in various NICE guidelines but there is a limited evidence-base of mental health studies valuating the approach. Bower and Gilbody (2005) reviewed existing evidence and found some limited support for the clinical and cost effectiveness of this approach as a way to deliver psychological therapies, but they also found no evidence for the overall effectiveness of the approach in terms of outcomes.

Williams et al (2007) concluded that the Chronic Care Model (CCM) framework was useful for understanding outcomes better and for identifying the key elements of successful interventions. They recommended that policy-makers promote efforts that include well-trained care managers, patient support and education, longitudinal monitoring and decision support for medication management to strengthen the integration of mental health specialists.

One review was identified that explored outreach work as a model to identify and reduce the symptoms of depression among older people (van Citters and Britels 2004). There were methodological limitations and generalizability difficulties with the 14 studies included. Nonetheless, they concluded that there was some support for outreach services in identifying isolated older adults and improving psychiatric symptoms.

In addition to evidence of effective collaboration between primary care and other sectors through quality improvement models, the review also identified studies that have focused on the benefits of cross sector co-operation with respect to suicide management. Woods et al (2010) point to the emerging evidence of multi-component approaches to suicide prevention which involve addressing a

variety of risk factors at one time, and at varying levels (e.g. individual, community and societal). Such an approach might, for example, combine school and community education initiatives with training for health professionals and gatekeepers, and emotional support for those with needs. A review by Hegerl et al (2009) indicated that this approach has been successful in reducing rates of suicide. Over the intervention period and during the following year, levels of suicidal acts decreased by over 30% (Hegerl et al, 2009).

The current review also identified some evidence of the effective collaboration between primary care and other sectors in the management of older people with mental health needs. Bruce et al (2005) conducted a review that considered a variety of community and home-based approaches to management of mental health problems among older people which included: the development of shared care protocols, shared care treatment led by primary care, nurse led management, multidisciplinary outreach team managed by a case manager, and training for care-givers. The authors concluded that despite the heterogeneity of studies, there was some support for home-based mental health services for older adults who have limited access to traditional practice-based models.

In relation to the management of alcohol disorders, the Department of Health in England (2007) recommends a four tiered approach which may incorporate the delivery of interventions by a wide range of staff within a variety of settings. The current review however did not identify any studies which point to the effectiveness of this approach in Northern Ireland.

To summarise, there is strong evidence that primary care services are effectively implementing both 'case management' and 'collaborative care' models. There is limited evidence of effectiveness to support the use of models of 'stepped care', 'chronic care', 'replacement referral' and home-based approaches for older people.

4. *To what extent is partnership working in facilitating service user/carer wishes; are decisions and treatment options evident, and what effect does such partnership have on service user outcome?*

The availability of evidence to answer this question is notably lacking with limited evidence identified in relation to supporting families and care-givers of individuals with dementia. A number of relevant issues were also raised from the analysis of available national guidelines and these are considered here.

A review by Chien et al. (2011) found some benefits of group support for carers/family of patients with dementia. The meta-analysis of 30 studies found group support had a positive impact on caregivers' psychological well-being, depression, and social outcomes. The review found that the use of theoretical models, and length and intensity of group sessions had a significant impact on psychological wellbeing and depression. This finding suggests that educational groups can provide immediate information and advice on care-giving skills, ways of self-adjustment, handling and legal issues, and thereby facilitate caregivers' access to available resources that can reduce their burden in patient care quickly. Psychoeducational groups not only provide practical information on patient care, but also focus on caregivers' psychological and emotional status as well as establishing a social, supportive network, and are more effective at improving caregivers' psychological well-being and depression.

Throughout their guidance literature, NICE consistently emphasises the importance of 'person-centred care'. They state that individuals who present in a primary care setting with mental health disorders should be treated in a sensitive manner and that treatment approaches should take the

needs and wishes of the individual into consideration. Taking guidance on GAD as an example, NICE states that following initial detection, treatment should be offered using a stepped-care approach in consultation with the patient, taking his/her views and needs into consideration. With reference to patient consultation and involvement in treatment decision making, practitioners are asked to consider: providing information and signposting to other services; offering written and verbal information on management of GAD including their role in supporting the patient; and providing information about crisis management and steps to get help (NCCMH 2011).

The key role of carers and others significant to the person in the management of mental health disorders is also referred to in the NICE guidance for psychosis which states that carers, relatives and friends of people with schizophrenia are important both in the process of assessment and engagement, and in the long-term successful delivery of effective treatments (NICE 2009).

The review was unable to find any review level evidence of the extent to which service user wishes in relation to treatment options are being implemented. The issue of shared decision making is touched upon to a limited degree within the context of the 'collaborative care model' with Duncan et al (2010) emphasising the key role that professional and patient shared decision making has to play in this approach. There is insufficient evidence available however to comment on the impact of shared decision making in primary care.

In summary, given the clear emphasis across NICE Guidelines of the importance of service-user involvement in treatment decision making, a key recommendation arising from this review is the need for more research in this area. In particular, there is a need for greater understanding of the 'partnership interventions' that enable service user/carer participation in decision-making and the resulting care outcomes. The making explicit of the meaning of 'person-centred care' in service delivery models that enable partnership working would be further enhanced through ongoing research.

5. *How effective are existing health promoting strategies used in primary care and how do these strategies help to reduce the impact of psychiatric conditions on individuals, families and communities?*

There is considerable review-level evidence available pertaining to health promoting strategies in primary care. The effectiveness of these strategies is different across client groups and mental health conditions.

The integration of mental health promotion strategies among all members of the primary care team has been identified as one of the key principles which characterise an ideal primary care mental health model (see Section C). Given the elevated prevalence of mental health disorders among the Northern Ireland population, aside from focusing on effective treatment options, primary care should focus efforts on the prevention of mental illness and the promotion of mental well-being across the population and across the lifespan. Included in the series of final Bamford Reports is a report devoted to this issue of mental health promotion (Bamford, 2006) which emphasises how mental health underpins all aspects of well-being and, therefore, should be seen as an integral part of all health and well-being service provision. The report acknowledges the need for more research into the effectiveness of mental health promotion at primary care level and advocates that GPs are particularly well placed to deliver mental health promotion strategies and interventions.

Turning firstly to depression, the evaluation of review level evidence suggests that targeted preventative interventions are effective in reducing depressive symptoms among women from low

socio-economic backgrounds. Van der Waerden and colleagues (2011) found that interventions such as PST, CBT, IPT, and more commonly psycho-education and social support, either at group or individual level, produced significant mental health benefits in terms of preventing major depression. In particular, they offered support for targeted psychosocial interventions, and interventions that included both individual and community components.

The benefit of exercise in promoting mental well-being and prevention of mental illness is alluded to in the Bamford Mental Health Promotion Report (2006). Grant et al (2000), for example, show that exercise prevents clinical depression and is as effective in treatment as other psycho-therapeutic interventions. This review has indeed found that "Exercise on prescription" schemes have become increasingly implemented in the UK (Biddle et al. 1994 in NCCMH 2010). Despite this evidence of the benefits of exercise as a health promotion strategy, the review did not identify any review level studies that examined effectiveness of exercise in terms of mental health promotion.

The review identified numerous studies of mental health promotion initiatives in post-natal settings. As previously mentioned, the Royal College of Psychiatrists (2002) outline the importance of regular antenatal examinations with continuity of care to prevent depression during and after pregnancy. Dennis (2005) explored the effectiveness of different approaches to prevention with this population and found emerging evidence to support the provision of professional support (from midwives or health visitors) post-natally. Furthermore results from another trial showed that flexible, individualised postpartum care by midwives, which incorporated assessment tools, also had a preventive effect. Dennis (2005) also examined the evidence on the effectiveness of psycho-social interventions to prevent and treat postnatal depression. While there was no benefit among the overall population under consideration, interventions that targeted at risk women, those that were individually based, and those that were initiated post-natally, were more likely to be beneficial.

Although many approaches have been suggested, there is no known way to prevent dementia, except possibly for vascular dementia, when it is reasonable to expect that risk can be reduced by maintaining a healthy lifestyle and by interventions targeting cardiovascular risk (MeRec 2007). Middle aged and older people should be reviewed for vascular and other modifiable risk factors for dementia (e.g. smoking, excessive alcohol consumption, obesity, diabetes, hypertension and raised cholesterol) and treated where appropriate.

There is a notable lack of review level evidence of health promotion strategies or prevention strategies in relation to anxiety disorders and substance disorders. There was no review level evidence identified for the prevention of initial onset of GAD, although there is a growing body of primary studies looking at sub-threshold GAD and early signs of worrying. One review of prevention was identified in the area of PTSD prevention. Rose et al. (2002) conducted a review of 15 trials to consider the preventative impact of individual debriefing sessions following traumatic events. They found no evidence to support the effectiveness of this approach in prevention onset of PTSD. They concluded compulsory debriefing of victims should cease and a more appropriate response would be 'screen and treat'. In terms of alcohol disorders, evidence indicates that brief interventions in primary care settings achieve an average 12.3% reduction in alcohol consumption per individual (Kaner et al 2007). However, this is a short-term effect and evidence about its duration is less clear cut.

In contrast to this dearth of evidence on the prevention of anxiety and substance disorders, the current review identified a number of reviews which have focused on promotion strategies aimed at reducing suicide risk. Three reviews (Beautrais et al 2007, Mann et al 2005, Leitner et al 2008) have examined the evidence on effectiveness of suicide prevention including work within primary care. The principal theme that emerged from these studies was the benefit of increased GP training in

suicide prevention and associated reduction in suicidal behavior. Research with GPs in Australia found that many felt ill-equipped to prevent or identify suicide risk in their patients (Pfaff et al 2001). In their review of the evidence Beautrais et al (2007) also classified training for general practitioners as having strong evidence of effectiveness. These conclusions concur with Mann et al's findings which found that GP education/training led to an increase in the detection of diagnosed and treated depressed patients, with accompanying reductions in suicide. Furthermore, recent research from Scotland (Griesbach et al 2008) indicates that GPs who attended a suicide prevention training (ASIST) course had a 20% greater chance of identifying those at risk of suicidal behaviour in the year following training.

In contrast to this cohort of evidence, other studies have found mixed effectiveness evidence in this area (Leitner et al, 2008); Church et al, 2006). Leitner et al for example found three studies specifically on training GPs to recognise and treat depression or other mental ill health. None of these studies reported any change in outcomes for suicidal behaviour or ideation, either with or without the support of statistical analysis. Church et al (2006) also commented on the limited robust research evidence into effective suicide prevention training programs. They refer to research from Sweden that found some evidence that education for GPs helped to reduce the number of suicides. Despite these positive results, the findings were the subject of some debate. When half of the GPs who had received the training left the area, the suicide rate subsequently increased, indicating the need for regular training to sustain the positive effects.

In summary, there is considerable evidence highlighting the importance of the use of health promoting strategies in primary care. The evidence suggests that targeted health promotion strategies (such as those used in the prevention of depression) may be effective, whilst others that are considered by practitioners to be useful (such as exercise programmes) have limited evidence of effectiveness. This is not to suggest that such programmes as 'targeted exercise' are not effective, but highlights the need for further outcomes-based research in this area.

6. *What evidence is there that GPs are adequately trained for assessing, diagnosing and planning treatment/treating people with mental health needs?*

According to Foy et al (2004) GPs spend 30% of their time managing the mental health disorders of their patients (cited in Bamford 2006). Once again the importance of adequate GP training is highlighted in the Bamford Review (Bamford 2006), in NICE guidance (2010), and is reflected in the key principles of the ideal primary care mental health service outlined in Section C: Primary healthcare professionals should have the appropriate training to assess and treat adults with mental health needs generally and appropriate to specific mental health and psychiatric disorders. In addition, given the epidemiological evidence of the prevalence of co-morbid mental and physical health disorders (Bunting et al, pending; Ferry et al, 2008), GPs should be aware that mental health disorders commonly co-exist with both physical disorders and other mental disorders and they should be competent in recognising and assessing these possible associations. Despite the obvious importance of mental health focused GP training, 50% of GPs have had no formal psychiatric training (Croft, 2000) although this figure may have changed since the publication of the Croft (2000) study.

Much of the review level evidence of GP training, which has been discussed in previous sections, has focused on suicide prevention or health promotion with the aim of reducing suicidal behaviours. Training programs have demonstrated positive short-term effects on reducing suicides and suicide attempts but results have been mixed. Follow-up training or additional interventions may be required to sustain benefits. Furthermore, additional research is required to determine the level and effectiveness of these training strategies in a Northern Ireland setting.

Aside from the aforementioned evidence of GP training in the specific area of suicide prevention, there is little review level information on the level and competency of GP training in relation to other mental health issues. In relation to under-diagnosis of dementia, Koch et al (2010) suggest that diagnostic uncertainty or insufficient GP knowledge or experience is an important factor. Primary care training has also been considered to some degree under the umbrella of quality improvement models, although evidence is distinctly limited. Bower and Gilbody (2005) identified two quality reviews on training. One review focused on 'passive' training and the authors concluded that this approach was ineffective in improving outcomes in patients. The second review examined more intense training around psychosocial interventions and found some benefits to patient outcomes.

Christensen and colleagues (2008) concurred with this finding in their review and concluded that the training of GPs in depression care and provision of clinical guidelines on their own were not associated significantly with improved outcomes. They added that this does not imply that interventions would be more effective without this element but rather that they play a role in influencing clinical practice, team collaboration and referral routes.

In summary, the lack of available review level information on the adequacy of GP mental health training is a pertinent issue, particularly given the evidence on the lack of early identification of mental health disorders such as depression and GAD. The evidence appears to suggest that GPs are able to rule out depression (for example) in most people who are not depressed but difficulties arise in diagnosing depression among those who are depressed. Findings such as this and those that highlight the limited impact of 'one-off' training, suggest the need for a reconsideration of the place of mental health in primary care education programmes.

What aspects of primary care are effective in the prevention, recognition and management of mental health issues across the lifespan; for whom do they work, in what circumstances and why?

Considering the available evidence, it is difficult to provide a definitive answer to the overall research question. Rather than identifying a strong evidence base which demonstrates effective primary care practice in prevention, recognition and management of mental health disorders, the current review highlights inconsistencies in available evidence and substantial research gaps.

In terms of prevention, a number of potentially effective strategies have been identified including increased GP training, multi-component approaches to suicide prevention, targeted strategies aimed at reducing PND and exercise as a form of mental health promotion. Evidence however is far from conclusive in these areas, with an obvious gap in Northern Ireland specific information. Evidence on recognition of mental health disorders also presents a mixed picture. Review level evidence suggests that assessment tools for the detection of dementia such as the MMSE are being effectively used in primary care. Primary care appears to work effectively in ruling out depression, using targeted assessment processes such as the 'Whooley' questions. Despite the availability of a range of standardised instruments that are specific to particular client groups and/or disorders, there is little evidence to suggest consistency in their use. Review level evidence suggests that this lack of consistent evidence coupled with lack of treatment seeking and co-morbid presentations has a marked impact on the effectiveness of current assessment processes. Finally, the evidence relating to management of mental health disorders across the lifespan raises numerous questions rather

than providing clear answers. While there is strong evidence on the effective use of 'case management' and 'collaborative care' models, other models require future research and/or development. Furthermore, aside from limited evidence on the use of family and carer support in the management of dementia, there is a distinct lack of information on the consideration of user/carer wishes in treatment decision making, management of mental health disorders in rural areas and effective management of mental health issues in older people to name a few.

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SECTION F

Concluding comments

Conclusions

In some senses a report such as this is never complete. Research not only produces new information, but refines our thinking in relation to the event that we once thought we understood, or took for granted. The nature of any review will always be more complete in some areas than in others. Nevertheless, the overall manuscript allows us to reflect on a great range of literature, by many individuals who have spent a considerable amount of time examining the issues dealt with in this review. Based on these studies and our reading of the evidence base, a fairly large number of recommendations have appeared in the Executive summary. Such recommendations have the potential to affect many individuals and interests, but they all highlight the ready acceptance that we can do better.

Despite the limitations of this review, (the current report) provides a comprehensive overview of available review-level evidence relating to the effectiveness of primary care mental health services across a broad range of disorders, sub-populations and cross-cutting issues. The importance of effective prevention, recognition and management strategies and processes within primary care has been consistently highlighted throughout the Bamford Reports, particularly in the Mental Health Promotion Report (Bamford, 2006) which outlines the key role of the GP in ensuring effective mental health service delivery. This point has been reinforced by contextual evidence presented in Section A of this report: Epidemiological evidence underlines the extent of the public health burden posed by mental health disorders, the additional impact of the Troubles and challenges for primary care in terms of delays in treatment and treatment dropout.

The current review has collated information on the effectiveness of primary care mental health service provision with the aim of comparing the available evidence with key principals of the ideal primary care model. While it is recognised that the ideal model will vary with respect to different disorders and targeted sub-population, broad comparison of review level evidence with the key principals presented in Section B reveals some limited evidence to suggest that there are certain circumstances in which primary care works effectively in the recognition, prevention and management of mental health problems. For example there is evidence to suggest that primary care works effectively in: assessing high risk groups for depression; the use of assessment procedures for dementia; the use of identification measures for GAD; managing home visits for older people; individualised post-natal care management; implementation of models of quality improvement; providing group support for carers and families of those with dementia; and reducing suicidality through increased GP training.

The review however has also highlighted many areas where there are gaps or insufficient evidence on effectiveness. In relation to assessment processes, the review-level evidence would appear to suggest that there are significant variations in assessment practices and processes in and between client groups. A number of key factors have been identified which may hinder the effectiveness of assessment processes and which may be used to inform future research and development. While the review has collated strong evidence to support the development of some models of service delivery such as 'case management', alternative models require further investigation. There is an acute lack of evidence which demonstrates partnership working in facilitating service user/carer wishes about treatment decisions which presents a pertinent area for further research. While there

exists considerable review-level evidence pertaining to health promoting strategies in primary care, the effectiveness of these strategies is different across client groups and mental health conditions. Finally the current review has confirmed the need for increased and sustained GP mental health training.

Limitations of the current review

The results of the current review should be interpreted with a number of limitations in mind. Firstly, given the broad scope of the commissioned review and limited timeframe, the review primarily considers review level evidence relating to effective service delivery in primary care. While the report draws upon some contextual level information as well as guidance standards, it was not possible to incorporate information from primary level studies which may contain answers to some of the research questions under consideration. For similar reasons, qualitative reviews were not considered in the current review. Given that the overall research question is somewhat qualitative in focus, a review of qualitative data on this subject area presents a specific opportunity for future research. Secondly, this report does not provide evidence across an exhaustive list of mental health disorders. Impulse-control disorders for example have not been included, but given that these are mostly prevalent among children, it is assumed that this topic has been considered elsewhere. The review also provides limited evidence on substance abuse and does not include studies on drug abuse or addiction, phobias or bi-polar disorder among others. One important issue identified in the original proposal was the delivery of effective primary care services in rural areas. The review search found limited information relating to this topic and it has therefore not been included. One obvious gap in the evidence included in this review is the lack of Northern Ireland specific studies with many of the reviews based in the US and other parts of the UK. Individuals living in Northern Ireland, as in many societies, come from different ethnic backgrounds, and may well experience ambivalence in terms of cultural identity, plus having to live with the psychological and social effects of racism and discrimination. These are known to have psychological consequences, but within the context of Northern Ireland these effects have yet to be examined within the current context. Equally there is a lack of review level evidence on the impact of the 'Troubles' on primary care services. While there now exists an invaluable body of primary evidence on the mental health impact of the 'Troubles' from epidemiological data, no reviews were identified which relate specifically to primary care.