

# **Systematic rapid evidence assessment**

## **The effectiveness of interventions for people with common mental health problems on employment outcomes**

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The results of this rapid evidence assessment are available in four formats:

### **SUMMARY**

Explains the purpose of the review and the main messages from the research evidence

### **REPORT**

Describes the background and the findings of the review(s) but without full technical details of the methods used

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## List of abbreviations

CBT	Cognitive Behavioural Therapy
CSR	Comprehensive Spending Review
CWT	Compensated work therapy
EPPI-Centre	Evidence for Policy and Practice Information and Co-ordinating centre
ESRC	Economic and Social Research Council
GP	General Practitioner
GSRU	Government Social Research Unit
JRRP	Job Retention and Rehabilitation Pilot
JRT	Job Retention Team
MH	Mental Health
MISS	Minimum Intervention for Stress-related mental disorders with Sick leave
LEA	Local Education Authority
NHS	National Health Service
ONS	Office of National Statistics
PCT	Primary Care Trust
QuEST	Quality Enhancement by Strategic Teaming
QI	Quality Improvement
PTSD	Post Traumatic Stress Disorder
RCT	Randomised controlled trial
SREA	Systematic rapid evidence assessment
WoE	Weight of Evidence

# Preface

## **Scope of this report**

This report describes the findings of a systematic rapid evidence assessment (SREA) of research relevant to mental health and employment outcomes. It was commissioned by the Comprehensive Spending Review (CSR) Policy Review Team to inform policymaking in the current Comprehensive Spending Review (2007).

The SREA examines the number, types and quality attributes of existing research studies concerned with mental health problems of all kinds and employment outcomes. It brings together the findings of a subset of these studies to assess ‘what works’ to enable people with common mental health problems to retain or gain paid employment. The policy and practice implications of the findings of the SREA are discussed and recommendations made.

## **How to read this report**

Some readers will be interested in the entirety of the report in order to get an overall picture of not only the findings of the SREA but also of how these findings were reached. Others will want to be directed to the parts most relevant to their needs.

In order to give prominence to the findings of the SREA, the methods are described in Appendix 2. A separate technical report includes the same information provided here but also describes the SREA methods in depth, as well as a detailed description of the scope of research activity uncovered by the team’s searches.

# Summary

## **Who wants to know and what do they want to know?**

The 2006 Budget announced a review of the policies needed to improve mental health and employment outcomes. Too many people of working age are excluded from work when, with proper help and support, it should be possible for them to find or remain in work. The Rapid Evidence Assessment reported here contributed part of the evidence base for the Policy Review Team by systematically assessing research on 'what works' in terms of interventions that address employment outcomes for people with mental health problems.

## **What did the researchers do?**

First, they looked at the question: What research measures the impact of interventions on employment among people with mental health problems? They found that there is much more research (135 out of 155 studies) on interventions for people with severe mental health problems (such as psychosis and schizophrenia) than for those with common mental health problems (such as depression and anxiety), despite the greater prevalence of the latter. An in-depth review was undertaken on eight interventions which targeted common mental health problems.

## **What did they find?**

Studies focusing on common mental health problems either aimed to improve the treatment of people's mental health problems ('mental health' interventions) or aimed to directly assist people with mental health problems to gain or retain employment ('employment' interventions).

While the studies were variable in terms of their quality and relevance, the evidence suggests that 'mental health' interventions can improve the employment status of people with common mental health problems, especially for those already employed. The evaluations of 'employment' interventions tended to be less robust and could not provide conclusive evidence that these programmes are effective. However, there is some indication that these interventions can be implemented and are popular and acceptable among stakeholders.

What are the implications?

On the basis of existing evidence, for those currently employed with common mental health problems (but not necessarily for those currently unemployed), the following conclusions were reached:

- Improvements in mental health are associated with better employment outcomes. (It should be noted that this is an association, and not necessarily causal.)

- Receiving recommended primary care improves employment outcomes.
- Interventions to improve mental health guideline implementation and adherence can improve employment outcomes.

Implementation and process data from the studies on 'employment' interventions provide some support for these interventions and could make a useful basis for the development and evaluation of future programmes.

More research needs to be undertaken on what works to help people with common mental health problems find work, if they are unemployed, or stay in work if they are employed. More research on how to help those currently unemployed is particularly important, given the paucity of evidence addressing this issue.

### **Where to find further information**

<http://eppi.ioe.ac.uk/cms/Default.aspx?tabid=2315>

## CHAPTER ONE

# Background

### 1.1 Policy background

This systematic rapid evidence assessment (SREA) has been written to inform policymaking with respect to helping people on incapacity benefit (IB) with common mental health problems to obtain work. The motivation for undertaking this work is the current Comprehensive Spending Review (CSR) and, in particular, the issue of people currently on IB due to mental health problems who may be able to work given the appropriate support. The SREA supports the CSR by examining the research evidence available to both support unemployed people into employment and help those at risk of losing their jobs, due to mental health problems, to retain their employment.

Mental health problems can be one of the greatest causes of social exclusion and the Office for National Statistics estimates that fewer than one-quarter of adults in this category are currently in work (ONS, 2003). The number of people affected by common mental health problems is estimated to be between one in six and one in four of the general population (Seymour and Grove, 2005), whereas more severe problems, such as bipolar disorder and schizophrenia, are experienced by around one in 100 people (Mental Health Foundation, 2003).

The Government is committed to improving services for people with mental health problems in both primary and secondary settings. It

also aims to reduce the number of people on Incapacity Benefit by 1 million and, given that nearly 40% of people receiving IB have mental health problems, this group has been identified as meriting particular attention (Department for Work and Pensions, 2006).

Following the Department for Work and Pensions Green Paper, *A New Deal for Welfare: Empowering People to Work* (January 2006), the 2006 Budget announced that policies relating to mental health and employment outcomes were to be reviewed (section 6.7). More needs to be known about effective methods to enable significant numbers of people with mental health problems to enter, or re-enter, the workplace. This will benefit them as individuals, enabling them to break the cycle of social exclusion. It will also benefit the wider economy by increasing productivity and reducing benefit costs. As well as identifying effective strategies for enabling currently unemployed people with mental health problems into work, there is an associated need to understand how to support them to remain in employment.

### 1.2 Research background

Existing reviews of research on mental health problems and employment outcomes have tended to focus on interventions for people with severe mental health problems such as vocational rehabilitation (Bond et al., 1997;



Crowther et al., 2001) or assertive community treatment (Marshall and Lockwood, 1998). Reviews which have looked at more common mental health problems focus on particular types of intervention or setting such as antidepressants (Greener and Guest, 2005) or workplace interventions (Seymour and Grove, 2005).

The latter systematic review, carried out by the British Occupational Health Research Foundation, looks at three phases of intervention: prevention, retention (of those identified as at risk of developing mental health problems) and rehabilitation (of those who have mental health problems). Few studies measuring employment outcomes were found, but the review suggests there is evidence for the effectiveness of brief individual therapy, especially cognitive behavioural therapy for people already experiencing common mental health problems (Seymour and Grove, 2005).

In addition to this research, two systematic 'reviews of reviews' that include sections on people with mental health problems have been carried out for the Government. 'Concepts of rehabilitation for the management of common health problems' considered the relationship between biological, social and psychological factors and rehabilitation but was unable to find any evidence on employment outcomes for people with common mental health problems (Waddell and Burton, 2004). Similarly, a review which aimed to provide evidence relating to policies within the White Paper *Saving Lives: Our Healthier Nation* (Department of Health, 1999) was only able to find evidence on employment outcomes for unemployed people without mental health problems or people with severe mental health problems (Contributors to the Cochrane Collaboration and the Campbell Collaboration, 2000).

Evidence-based clinical guidelines for the treatment of common mental health problems (for example, McIntosh et al., 2004; NCCMH, 2004) provide recommendations on the care that people should receive from the NHS but rarely address employment outcomes or interventions which target employment. The

NICE guideline for depression recommends that 'where a patient's depression has resulted in loss of work or disengagement from other social activities over a longer term, a rehabilitation programme addressing these difficulties should be considered' (NCCMH, 2004, p 71) but this is not based on research evidence and is aimed at those with chronic or severe depression.

### 1.2.1 Two types of intervention

It is generally accepted that common mental health problems often result in poorer employment outcomes (McIntosh et al., 2004; NCCMH, 2004) and therefore many interventions rely on the inverse being true: that improving the mental health problem itself will naturally result in improved employment outcomes. In addition to *employment-based interventions* that target employment issues specifically (and may or may not have an explicit focus on mental health), there are a number of *mental health-based interventions* that aim primarily to improve symptoms, and any employment outcomes are secondary measures. Thus, the interventions described in this review tend to fall into these two categories in terms of focus, setting and service provision: 'mental health' interventions and 'employment' interventions.

With regard to mental health-based interventions, some claim there is evidence that a reduction in depression symptoms is associated with an improvement in employment outcomes (Simon et al., 2000; Smith et al., 2002; Greener and Guest, 2005) while others acknowledge that, in practice, there is often uncertainty about whether such a relationship between clinical and social outcomes actually exists (Schoenbaum et al., 2002). Many agree that primary care treatment for common mental health problems frequently falls below standards set by clinical guidelines and that improvement in mental health outcomes is less than optimum (Greener and Guest, 2005; NCCMH, 2004). Therefore, efforts to improve outcomes are often focused on improving the quality of care that people receive (Smith et al., 2000; Simon et al., 2002; Wells et al., 2001). However, few studies of mental health interventions measure employment outcomes

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(Greener and Guest, 2005; Wells et al., 2000), as is evident from the small number of studies in this SREA.

On the other hand, efforts to directly improve employment by providing support for people with disabilities or those on incapacity benefit often fail to address the specific needs of sub-groups, including those with mental health problems. Notably, those vocational interventions that are aimed at people with mental health problems tend to be provided to those with more severe or complex problems and not to the larger group of people with common mental health problems (Drebing et al., 2005).

Many feel that focusing on clinical outcomes first and only moving onto rehabilitative interventions if treatment fails (or as severity increases) is inappropriate. A recent report from the Department of Work and Pensions concluded as follows: 'Every health professional who treats patients with common health problems should be interested in and take responsibility for rehabilitation and occupational outcomes. That requires radical change in NHS and health professionals' thinking' (Waddell and Burton, 2004 p 7). The studies in this SREA show that there are increasing attempts to provide comprehensive services which integrate elements of both health and employment interventions (Purdon et al., 2006) and moves to ensure that health, social and employment services work together more effectively (McCrum et al., 1997).

### 1.3 Rapid evidence assessment process

#### 1.3.1 Aims and rationale

Before undertaking any new policy, practice, research or before making any other decisions, it can be useful to find out what is already known about an issue. This knowledge may include the findings of research studies and, as many research studies may be able to contribute to answering any particular question, reviews of research are conducted

to bring together the findings of all relevant research. Like any research activity, reviewing can be prone to intentional or unintentional bias, which is why 'systematic reviews' are often used. Systematic reviews answer a clearly formulated question using explicit methods to identify, select and assess relevant research for quality, and to draw conclusions from their results in a transparent way. They give policymakers and other stakeholders a more transparent and less biased picture of current knowledge in a specific area to facilitate informed decision-making.

This report describes the results of a particular type of review, a systematic rapid evidence assessment, which uses the same methods and principles as a systematic review but in a more condensed form in order to suit the timescale of the Policy Team. While having many of the same features and processes as a systematic review, the purpose of the SREA is to give a specific answer to a specific problem, and is not a broad, critical investigation of the topic area in question.

The aim of this systematic rapid evidence assessment is to provide evidence on 'what works' to assist people with common mental health problems to obtain work if they are currently unemployed, or to stay in work if they are currently employed. The team began by constructing a descriptive map of the existing research on all mental health problems and employment outcomes before narrowing the evidence down to an in-depth assessment of those studies which look at common mental health problems. (Appendix 3 provides definitions of these terms and Appendix 2 gives a detailed description of the methods we used).

The scope of the SREA is as follows:

- The **population** of interest is both individuals and employers. Individuals are people of working age (either in or out of work) with a diagnosed mental health problem. Those employers which seek to support people with mental health problems are also included.
- **Interventions** are defined very broadly.

They include medication, ‘community interventions’, counselling or other kinds of support; they may occur within or outside the workplace.

- The **outcomes** of interest define the scope of the SREA quite strictly. Only studies which include an outcome relating to a change in employment status are included. Employment is defined as ‘a full or part time position held by the client in an ordinary work setting, for which they were receiving payment at the market rate’ (Crowther et al., 2001, p 4).

### **1.3.2 Outline of methods used in the SREA**

The focus of the SREA, the criteria used to determine which studies should be included, and the topic of the in-depth phase were decided through a series of meetings and email exchanges with the CSR Policy Review Team. The methods for the SREA followed standard EPPI-Centre procedures for systematic reviews, but were somewhat condensed in order to meet the tighter timeline required by a SREA.

The SREA was conducted in two phases: a mapping phase and an in-depth phase. Through searching electronic databases, looking for citations in reference lists, searching the web

and personal contact, 155 research studies were identified which evaluated interventions among people with mental health problems and included employment outcomes. After taking stock and examining the research that had been identified, the researchers met the CSR Policy Review team and a tighter focus was agreed for looking at research in depth, examining common, rather than all, mental health problems.

The *in-depth* phase of the SREA looked in detail at the eight evaluations of interventions identified in the map which concerned people with common mental health problems. There were two broad categories of intervention: those which *either* aimed to improve the treatment of people’s mental health problems (‘mental health’ interventions) or aimed directly to assist people with mental health problems to gain or retain employment (‘employment’ interventions). Data was extracted from each study by two researchers working independently and judgements were made regarding the reliability of their findings. Results from this process were compared and agreed before the findings of the studies were brought together in a narrative synthesis.

A detailed account of the methods used is given in Appendix 2.

## CHAPTER TWO

# The evidence map

### **2.1 Results: descriptive map of research activity (mapping phase)**

In the first phase of this SREA, the range of research activity (including systematic reviews) in the area of all mental health problems and employment outcomes (detailed methods are described in Part II) was examined.

A total of 580 studies were identified in the mapping phase and abstracts of all these studies were screened for relevance according to our agreed criteria (see Appendix 2). A systematic map based on the titles and abstracts of the 155 included studies was produced. Despite common mental health problems (such as depression) being far more widespread than severe mental health problems (such as schizophrenia), the number of studies concerning people with severe mental health problems outnumbers those examining people with common mental health problems by more than ten to one.

#### **2.1.1 Main findings of the map**

- A wide variety of interventions have been researched; the single most studied intervention is supported employment (including seven systematic reviews).
- Almost all the primary research studies found concern people with severe mental health problems; this group has also been well

covered by several systematic reviews.

- The effectiveness of interventions to support people with common mental health problems is less well covered in research: there are far fewer primary studies dealing with this issue and a similar lack of systematic reviews on the subject.
- There are, however, some studies which may contain useful information regarding the potential for certain interventions to help people with common mental health problems back into work

Having identified a significant difference in the distribution of research activity between common and severe mental health problems, the team moved on to examine the eight studies which measured employment outcomes for people with common mental health problems.

#### **2.1.2 Conclusions and implications of the map**

The finding that significantly more research on mental health problems and employment outcomes is carried out on people with severe mental health problems than on people with common mental health problems probably reflects the pattern of services received by these groups of people. The majority of people with common mental health problems are treated in primary care (NCCMH, 2004;

Healthcare Commission, 2004) and it is usually only patients with more severe problems that are referred on to the more specialist services where vocational rehabilitation is offered (Aylward et al., 1998). Even when a person's mental health problem leads to loss of work and receipt of incapacity benefit (IB), there may be little overlap between the health and employment services they receive.

It is possible that there are few studies concerning people with common mental health problems because there are few interventions; people with common mental health problems may simply be given medication and not offered any further support.

Most evidence on 'what works' concerns people with severe mental health problems. However, since there are far more people with common mental health problems, any significant reduction in the number of people on IB will need to include this group of people. Moreover, as interventions targeted at people with severe mental health problems are specific to that group, they may not be appropriate for people with common mental health problems.

Since some studies have been found concerning people with common mental health problems, there would appear to be an urgent need for a systematic review which looks comprehensively at all the available evidence on the effectiveness of interventions to support this group of people back into work. This rapid evidence assessment has gone some

way to meeting this need. While it is difficult to estimate whether a full systematic review would have found more studies, a larger piece of work would have been able to examine a greater range of outcomes and consider other issues, such as the appropriateness and acceptability of the interventions it included.

### ***2.1.3 Development of the in-depth assessment***

Of the 155 studies included in the map, 20 were not on people with severe mental health problems. Four additional studies were identified in the in-depth phase and added to the sample; therefore 24 studies entered the in-depth phase of the SREA. Sixteen studies were not coded; for nine of these, this was because insufficient information could be obtained on their eligibility; four are ongoing and three are systematic reviews. Eight primary studies were coded for the in-depth phase.

To enable consistent coding of studies and to ensure compatibility with the aims and objectives, systematic reviews which appeared relevant went into our in-depth phase but were not coded. Instead, the full text of the primary studies they included was obtained and screened against the inclusion criteria. Statements made by the reviews and the studies they were based on were also investigated to see whether they were relevant to the in-depth phase and could be analysed in the discussion.

## CHAPTER THREE

# In-depth assessment of interventions for people with common mental health problems

### 3.1 Description of the interventions

Following the division in the theoretical basis for interventions described in the research background, the descriptions of the studies included in the in-depth assessment are divided into ‘employment’ interventions and ‘mental health’ interventions. While some of the ‘employment’ interventions contain treatment components, the distinction is made between interventions whose primary aim is to improve people’s employment prospects and those which aim primarily to treat people’s mental health problems. All studies evaluated the impact of their intervention on employment, since this was a necessary criterion for inclusion in this review.

#### 3.1.1 ‘Employment’ interventions

Interventions which have a primary purpose of improving the employment prospects of people with common mental health problems have been evaluated by five studies: Drebing et al. (2005), Grove and Seebom (2005), McCrum et al. (1997), Purdon et al. (2006) and Thomas et al. (2003). These interventions often use trained ‘case managers’ to evaluate the particular circumstances of clients and direct or supply the most appropriate type of support or guidance. This can take the form of counselling and specific therapies, such as cognitive behavioural therapy (CBT); support at the workplace and employer-employee

facilitation/mediation; and assisting with finding future employment. The employment interventions fall into two main camps: those aiming to assist people who are unemployed to find employment, and those aiming to prevent the loss of employment by providing support to people most at risk of losing their jobs due to mental health difficulties. One of the interventions (McCrum et al., 1977) falls into the former category, while three are concerned with supporting people currently in work.

The largest evaluation of an intervention supporting those in work was the *Job retention and rehabilitation pilot*, funded by the Department for Work and Pensions (Purdon et al., 2006). This was a two-year evaluation commencing in 2003 in the UK with 2,845 participants who were currently employed but had been off work due to sickness for between six and 26 weeks. Approximately 30% had mental and behavioural disorders, although the precise breakdown for type of problem is not clear from the detail given in published sources. The aim of this intervention was to ‘decrease length of sickness absence and increase job retention for people with a health condition or impairment’ (p 9). The means by which this was to be achieved varied from case to case with intervention being tailored to individuals’ needs. The most common intervention given to those with mental and behavioural disorders was counselling and CBT, although some also received additional health interventions (such as physiotherapy and complementary therapy)

and workplace intervention (such as ergonomic assessment and employer liaison / mediation).

Comparable interventions were also evaluated by Thomas et al. (2003) and Grove et al. (2005). Thomas et al. (2003) conducted a year-long job retention evaluation based at the Avon and Wiltshire Mental Health Partnership Trust in the UK in 2002. Since the evaluation was taking place towards the beginning of the intervention and numbers of participants were likely to be small, the study is more exploratory and qualitative, rather than an attempt to evaluate the effectiveness of the intervention. The intervention took the form of a 'job retention team' which received clients who had mostly been referred by local GPs. Of the 13 clients who participated in the evaluation, nine (69%) had mild to moderate mental health problems and four had severe and enduring problems; all received 'supportive counselling'; and most received intervention to improve their self-esteem and confidence (12 participants), and a range of other mental health interventions, such as coping skills (10), CBT (9), anxiety management (9), and assertiveness training (7). Other issues tackled for smaller numbers of participants included anger management (2), social skills training (2), eating management (1), drug and alcohol management (1) and work-life balance (1). Intervention also took place at the workplace, with awareness and greater knowledge of mental health issues being increased in 11 cases and negotiations being facilitated in relation to 'reasonable adjustments' (8), job retention (5), and return to work (5).

A similar intervention to the above was evaluated in 2004 in Walsall, UK, by Grove and Seebom (2005). The *Employment retention project* provided a service for people who were employed but absent, or were at risk of becoming absent, from work due to illness. It consisted of advisors operating within the Walsall Primary Care Trust boundary who provided tailored support to individuals who had self-referred or been referred by GPs or other health professionals. In addition to treatment interventions for mental health problems, the programme offered employer-

employee liaison services and limited assistance in obtaining new employment where needed. Like the *Job retention and rehabilitation programme* described above (Purdon et al., 2006), this intervention was not only focused on those with mental health problems; 23 (out of 229) clients with common mental health problems were referred to the 'GP strand' (GPs both referred participants and delivered part of the intervention); 47 out of 229 clients were referred to the 'mental health strand' of the intervention; and 134 to the 'depression and anxiety management service'. The 'mental health strand' of the intervention was based within a psychiatric unit and concerned with people with severe mental health problems. The 'depression and anxiety management service', however, was open to all referrals and aimed to 'enable the client to learn coping strategies and meet other people who are experiencing the same kind of problems. This intervention was of fairly short duration (about 3 weeks), using a Cognitive Behavioural Therapy (CBT) model incorporating lifestyle changes' (p 50).

Another type of 'employment' intervention was evaluated by McCrum et al. (1997). Unlike other interventions, this one was concerned with people who were unemployed rather than those who were in work and at risk of unemployment, and took place in 1992-93, a decade before the other interventions in this section. It was located in Antrim, Northern Ireland and consisted of a job clinic established by the Department of Economic Development, the Industrial Therapy Organisation (a voluntary sector group) and the Department of Health and Social Services (NI). The clinic was staffed by a Disablement Employment Adviser, a placement officer with the Industrial Therapy Organisation and a 'Community Occupational Therapist attached to the local Community Mental Health Team' (p 507). The team worked with clients to help them to choose their career; to 'discover their job aptitudes'; to 'develop and achieve vocational goals'; to 'gain work skills and positive vocational experiences'; to 'identify training/vocational opportunities in the local area'; and to 'improve communication and liaison between all the statutory, voluntary and

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private sector groups involved in the provision of vocational opportunities for people with mental health problems' (p 507).

The final 'employment' intervention in this SREA was evaluated by Drebing et al. (2005). This study is something of an exception in the sample with regard to its population: dually diagnosed veterans (most had depression or anxiety and all had alcohol or substance abuse problems) and intervention - compensated work therapy (CWT) with enhanced incentives. All participants were enrolled in 'a multi-component work-for-pay vocational rehabilitation program' (p 362), which included supported employment. The intervention being evaluated was the addition of cash awards (relating to job acquisition and abstinence from substance abuse) to the CWT programme. While this study met the inclusion criteria for the review and therefore must be included in its reporting, its contribution to the findings of this review is limited.

### 3.1.2 'Mental health' interventions

The 'mental health' interventions tended to be less complex than the above interventions and were either concerned with the correct implementation of guidelines or the relative efficacy of drug treatments.

Both Smith et al. (2002) and Wells et al. (2000) evaluated interventions which aimed to improve the implementation of guidelines to treat depression. Smith and colleagues evaluated the quality enhancement by strategic teaming (QuEST) intervention in the USA in 1996-97 among 262 people with depression. The intervention consisted of training all enhanced care physicians and nurse care managers in the use and application of the 'Agency for Healthcare Research and Quality guidelines' (Depression Guideline Panel, 1993) through four telephone conference calls. In addition, 'Nurse care managers received an additional day of training on educating depressed patients about treatment options, encouraging adherence to treatment, and monitoring treatment response' (p 44). The intervention aimed to improve the quality of treatment, and did not actually

assign patients to particular treatments.

Wells et al. compared two quality improvement programmes in the USA in 1996-97 among 1,356 people with 'depressive disorders' in primary care settings. The quality improvement intervention had four components: an 'institutional component' which was concerned with resource allocation; the training of 'local leaders' in implementing the interventions; the training of local staff in clinical assessments, patient education, 'and activation based on a written manual and videotape' (p 215); and patient identification. Two slightly different interventions were compared with usual care. The first consisted of follow-up assessments and support services to enhance resources for supporting medication management, while the second aimed to enhance resources for providing psychotherapy for depression and included individual and group CBT for 12 to 16 sessions.

The final interventions to report in this section were evaluated by Simon et al. among 290 people in the USA. This evaluation compared three different anti-depressant drug treatments: fluoxetine, desipramine and imipramine. The setting for the twelve-month study was seven primary care clinics among participants with major depression. After the trial, patients were classified as remitted, improved, or persistently depressed. Unusually for this type of evaluation, employment outcomes were assessed and, for this reason, it is included in the synthesis.

## 3.2 Examination of study type, quality and relevance

Since the reliability of a study's findings depends on the selection of appropriate methods and their correct implementation, the types and quality of the evaluations of the above interventions are now considered. (See the *Technical Report* (Underwood et al., 2007) for tables which summarise details of the studies and Appendix 2 of this report for more information about the methods and tools.)



Purdon et al. (2006) describe the results of a large randomised controlled trial with an abundance of accompanying process information. This is, however, the only robust evaluation of effectiveness among these studies. While providing rich contextual and process information, McCrum et al. (1997), Thomas et al. (2003), and Grove and Seebohm (2005) are based on relatively small numbers and do not employ an independent comparison group to provide a robust counterfactual to the group that received the intervention. As discussed above, Drebing et al. (2005) is not particularly relevant to this SREA both in terms of population and intervention. Although it is a randomised controlled trial, it has a small sample size. For these reasons, the study is not included in the synthesis of study findings.

The ‘mental health’ studies were all carried out in the USA using randomised controlled trials (RCTs). This method provides the most robust evidence of ‘what works’, but unless it is accompanied by an evaluation of processes, often does not tell us very much about other issues, such as acceptability, appropriateness and ease of implementation. However, while the study conducted by Simon et al. (2000) is based on data from an RCT, the way the data was analysed to examine employment outcomes means that the study becomes, essentially, a before-and-after study and is therefore not rated as being as reliable as the other studies in this category.

There therefore exists the potential to know whether ‘mental health’ interventions are able to improve employment outcomes for people with common mental health problems, but conclusions regarding the effectiveness of ‘employment’ interventions are limited to the results of one study.

### 3.3 Studies’ results and SREA findings

Two sets of findings emerge from this systematic rapid evidence assessment of mental health problems and employment outcomes: the state of the current evidence base and what

that evidence tells us about interventions for people with common mental health problems.

It is clearly established that most employment research is focused on people with severe mental health problems and that most research about mental health does not measure employment outcomes. This finding matches those of other research carried out in this area (Greener and Guest, 2005; Waddell and Burton, 2004).

These findings account for the lack of available evidence to answer the in-depth research question:

*What is the evidence for the effectiveness of interventions for people with common mental health problems on improving employment outcomes?*

#### 3.3.1 Results of the ‘employment’ interventions

The results of the employment-based evaluations can be summarised as follows:

- Purdon et al. (2006): Overall, this study did not find any difference between those who received the intervention and those who did not, and, if anything, the study suggested that the people with mental health problems in the control group appeared to have slightly better employment outcomes than those receiving the intervention.
- Thomas et al. (2003): Ten out of 13 participants retained employment (78%), but it is not clear whether this was due to the intervention.
- Grove and Seebohm (2005): Nine (41%) participants referred to the ‘GP strand’ retained or returned to employment. Fifty-two (50%) participants referred to the ‘depression and anxiety management service’ retained or returned to employment. It is not clear whether these results were due to the intervention, or whether the participants would have returned to work anyway.

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- McCrum et al. (1997): 17% of previously unemployed clients gained full-time employment but it is not clear whether this was due to the intervention. Apart from a small number who did not attend the intervention, all the other clients went into education or training programmes, or voluntary or supported employment.

Bearing in mind the relatively high rates of employment reported in the control group of the Purdon study (nearly 60%), the post-intervention employment rates in the studies without control groups look less remarkable.

### ***3.3.2 Results of the 'mental health' interventions***

With regard to the evaluations 'mental health' interventions that included employment outcomes, the following results were found:

- Simon et al. (2000): Employment increased over time for all (antidepressant) groups combined. It is not possible to extract exact data, but it is not known if this was due to the intervention. Patients with greater clinical improvement were significantly more likely to maintain paid employment.
- Smith et al. (2002): The study found that enhanced care improved employment outcomes compared with usual care, but while significant with 90% confidence, this was not statistically significant at 95% confidence. (95% is the level generally accepted by researchers as being acceptable evidence that the results are real and not due to chance.)
- Wells et al. (2000): Intervention patients were significantly more likely to be working at 12 months compared with usual care. Those who were working initially were more likely to be in work at 12 months, whereas there was no difference between groups for those not working to start with; that is, those who were employed were more likely to retain their jobs, whereas the intervention did not appear to enable those who were unemployed to gain employment.

The eight included studies vary to such an extent in terms of aim, method, quality, population, intervention, and outcome, and in their ability to answer the question, that it is difficult to draw any firm conclusions. There is evidence to suggest that improving mental health care and outcomes can improve employment status of people with mental health problems, while the effectiveness of employment interventions to help people obtain work or stay in work is less clear. However, implementation and process data from the studies provide some support for these interventions and could make a useful basis for the development and evaluation of programmes.

## CHAPTER FOUR

# Conclusions and discussion

### 4.1 Summary of conclusions

The conclusion is reached that, while there is evidence to suggest that ‘employment’ interventions can be implemented and are popular and acceptable (see below), there is no evidence that they are effective in improving employment prospects for people with common mental health problems.

The evaluations of ‘employment’ interventions tended to be less robust than those evaluating ‘mental health’ interventions.

The following conclusions were reached regarding those with common mental health problems who are currently employed:

- Improvements in people’s mental health are associated with better employment outcomes.
- Receiving recommended primary care improves employment outcomes.
- Interventions to improve guideline implementation and adherence can improve employment outcomes.

However, the above may not be applicable for those currently unemployed.

More research needs to be carried out on what works to assist people with common mental health problems to find work, if they are

currently unemployed, or to stay in work if they are currently employed with specific attention given to measuring employment outcomes.

There is no shortage of evidence on ‘mental health’ interventions for people with common mental health problems, but few studies report employment outcomes. Many studies measure people’s employment status at baseline but rarely use this measure as an outcome, despite indications that it might change as a result of improvements in mental health. A full systematic review of common mental health problems and employment outcomes with more sensitive and extensive searches could provide more evidence on which mental health interventions also promote employment. The fact that there is no systematic review which has addressed this broad issue marks a significant gap in research evidence.

In terms of employment interventions, those aimed at people with common mental health problems and those which are applying principles from interventions for people with severe mental health problems, need to be evaluated with high quality evaluations in the appropriate population before claims for their effectiveness can be made with any certainty.

### 4.2 Implementation and process of employment interventions

While there is limited evidence on the efficacy

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of employment interventions, there is some evidence that the people who participated in the employment interventions found them acceptable and valuable. Participants in Grove and Seebohm (2005) and Thomas et al. (2003) who returned to work felt they would not have done so without the intervention, and even those who did not return felt positively about the projects. In Grove and Seebohm (2005), 'all clients reported that their Advisor and the package of support provided by the Project... had been the major factor in their journey back to health' (p 25).

These views appear to be matched by other stakeholders, such as those referring people to the projects, employers, and GPs: 'All referrers rated the project as very helpful. Five clients rated it very helpful and one rated it helpful' (p 28). 'Clients, referrers and the employer interviewed described it as expert, quick and effective in achieving its purpose' (Grove and Seebohm, 2005, p 5).

*The overall response from clients, GPs, employers and case managers was that the outcomes for clients, both in relation to their job and their mental health, were improved as a result of the JRT intervention. The majority of employers who participated in the research also reported positive outcomes for themselves in terms of feeling better informed and more able to manage mental health issues. Similarly, in addition to positive outcomes for their patients, GPs valued the impact of the service in decreasing demands on their own time. (Thomas et al., 2003, p 5)*

The largest study on employment interventions in our sample was the Job Retention and Rehabilitation Pilot (Purdon et al., 2006). This study employed a randomised controlled trial design to evaluate a comprehensive range of services, and looked at a range of outcomes; it was disappointing to record that it found no significant differences between groups. Indeed, in the case of those with mental and behavioural disorders, the study stated that 'it appears that the interventions may have actually reduced the likelihood of a return

to work' (p 5). Suggestions by the authors to explain this unexpected finding were that the interventions offered were not appropriately geared to participants' specific needs, that those in the control group were more proactive in seeking help on their own and that there were barriers to returning to work that were outside the control of the interventions (including those from employers and GPs). It is interesting to note that, while many participants in the workplace intervention expressed a desire to receive more health or medical interventions, relatively few in the health group wanted to receive more employment services (Purdon et al., 2006).

Thomas et al. (2003), and Grove and Seebohm (2005), in particular, use their process information to suggest criteria for effective interventions and make recommendations on service development. The Job Retention Pilot (Thomas et al., 2003) was evaluated against 13 criteria for a good job retention service derived from previous work - a literature review on job retention and mental health (Thomas et al., 2002). The criteria recommend that interventions include both vocational and mental health counselling, and cover access to the service, working with both health professionals and employers and providing a tailored, case-management service (Grove and Seebohm, 2005). Thomas et al. (2003) identified a further two criteria as a result of the evaluation: addressing family and relationship issues and access to financial counselling and advice. They also concluded that early intervention was the most significant factor associated with an effective job retention service, and highlight a focus on return to work, ongoing support, access regardless of diagnosis, and the role of the case manager. Grove and Seebohm (2005) then used these criteria as the framework for evaluating the Walsall Employment Retention Project.

While the Job Retention and Rehabilitation Pilot (Purdon et al., 2006) was very similar to these previous studies, it does not appear to have compared its interventions with the criteria for effective job retention service. It did, however, identify some of the barriers that might impact

on effectiveness, particularly those faced by service providers, including attitudes and working relationships with employers, GPs and other health services, and the power of the employer in deciding employee's future employment.

### 4.3 Existing systematic reviews

In addition to the studies described above, three reviews appeared to be relevant to this SREA but, on obtaining the primary studies they contained, no additional studies were found beyond those already included. The type of intervention these reviews look at and the conclusions that they draw are similar to those in this SREA.

Waddell and Burton (2004) look at the evidence for both severe and common mental health problems and stress the use of rehabilitation approaches. They suggest that the principles for severe mental health problems might apply to people with common mental health problems, but acknowledge that 'there is very little direct evidence on the effectiveness of these interventions for minor problems...The main problem is the general lack of evidence on vocational outcomes' (p 42).

Seymore and Grove (2005) look specifically at workplace interventions and recommend 'the use of cognitive behavioural therapy (CBT) in brief therapy sessions of up to 8 weeks with people already presenting with common mental health problems' (p 41). These studies could not be included in the review, since none of them measured employment outcomes according to the agreed definition. However, their finding that 'skilling primary care practitioners to diagnose and treat depression is effective in helping people retain employment' is in accordance with this rapid evidence assessment, and one of the studies that this finding is based on is common to both reviews (Wells et al., 2000).

A review which aimed to look at the impact of depression treatment on occupational outcomes (Greener and Guest, 2005) states that there is

'compelling evidence' that antidepressants can improve employment outcomes by improving clinical outcomes (p 259). However, only one of the review's included studies met our criteria for inclusion (Simon et al., 2000), and the study concedes that the efficacy of antidepressants on work-related outcomes has been understudied in clinical trials.

### 4.4 Other relevant interventions

In addition to the eight included studies and the three reviews described above, our search identified a further four studies which appear relevant but for which there is not enough information to code because they have not yet been published or are still ongoing. Probably the most relevant is a Dutch cluster-randomised controlled trial investigating the effectiveness of the Minimum Intervention for Stress-related mental disorders with Sick leave (MISS) in general practice. Outcomes from the 433 participants include return to work from sick leave, unemployment and receipt of disability benefit; results were due at the end of 2006 (Bakker et al., 2006). Another Dutch study, this time a participant-level randomised controlled trial has examined the effects of treatment in occupational health practice by Dutch occupational physicians trained in using the Dutch national guideline on the management of employees with mental health problems by occupational physicians. Around 200 participants from two police departments were recruited and the results were due in 2007 (Rebergen et al., 2006).

The other two studies evaluate supported employment and it may emerge that they are more focused on people with severe mental health problems, both originate from the US. 'The impact of Vocational Rehabilitation for Mentally Ill Veterans' is a participant-level RCT comparing supported employment with standard vocational rehabilitation for veterans with posttraumatic stress disorder (Davis et al., 2006). This study has just started recruitment and is due for completion in 2009. 'A process and outcome evaluation of a recovery center that integrates employment and education

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services with wellness and recovery' is a before and after study of the Training for the Future program for people with psychiatric disabilities (Furlong-Norman, 2006). Sixty-one participants took part in the evaluation which was due to be published in 2007.

### 4.5 Treatment of common mental health problems

Given that one of the findings suggests that improving people's mental health can improve their employment outcomes, it is important to acknowledge the existence of current mental health treatment guidelines. Evidence on the effectiveness of interventions on improving mental health problems has been evaluated in recent NICE guidelines on mental health and behavioural conditions. The depression (NCCMH, 2004) and anxiety (McIntosh, 2004) guidelines are of particular relevance to this SREA. Key recommendations for treatment are detailed in the Quick Reference Guides for each condition (<http://www.nice.org.uk/page.aspx?o=cg22&c=mental> and <http://www.nice.org.uk/page.aspx?o=cg023&c=mental>).

With regard to improving primary care treatment by implementing these guidelines and the National Service Framework for Mental Health, there is evidence supporting the effectiveness of audit and feedback on improving practice and interventions designed to improve recognition and management of mental health problems in primary care on improving diagnosis, treatment, clinical outcome and functional status (Contributors to the Cochrane Collaboration and the Campbell Collaboration, 2000).

In addition, in *A Guide for Medical Practitioners: Medical evidence for Statutory Sick Pay [SSP], Maternity Pay and Incapacity Benefit Purposes*, the DWP (2004) recommends that 'in some cases where the patient's condition could lead to prolonged sickness absence, you may wish to seek early specialist help from Jobcentre Plus, part of the Department for Work and Pensions, or another agency' (p 22).

### 4.6 Strengths and weaknesses of this SREA

While being a systematic examination of the evidence base in this area, this rapid evidence assessment is not a full systematic review and differs from a full systematic review in one important way: the scope and depth of its searches. Searching for a full systematic review can often take more than three months (more than the total time allocated to the SREA), while the searches for this report took less than three weeks. The searches conducted depended almost exclusively on electronic databases and were not accompanied by the usual practice of searching key journals by hand. More specific search terms than usual were used, screening by hand only a few hundred references, rather than the many thousands (or tens of thousands) that would normally be screened for a full systematic review.

The fact that studies were excluded, based on their abstract alone, is also a potential weakness of this SREA. Usually, the full report of all potentially relevant studies would be retrieved, whereas, for this only those which were clearly connected with mental health and employment were retrieved. This may have led to, for example, some mental health studies, with a minor focus on employment, being excluded.

However, even though the search strategy was necessarily limited, the fact that previous systematic reviews in the area did not find more studies suggests that the small number of studies in our SREA reflects a lack of research in this area, rather than significant deficiencies in the searches. Apart from the search strategy, this SREA followed all the stages and adhered to the principles that one would expect of a full systematic review.

While it is difficult to estimate whether a full systematic review would have found more studies, a larger piece of work would have been able to examine a greater range of outcomes and consider other issues, such as the appropriateness and acceptability of the interventions it included.

Despite the fact that this is not a full systematic review, a fairly large number of relevant studies for our map (155 in total) was found. However, it was possible only to include eight in our in-depth analysis. Of the studies that were about evaluating an intervention for people with mental health problems, most were excluded because they did not measure change in employment status (58/157 exclusions); this was also the main reason for excluding studies from the reviews discussed above (11/25 exclusions).

## CHAPTER FIVE

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## **5.2: Studies included in the in-depth evidence assessment (N = 8)**

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# Appendix 1.1: Authorship of this report

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## **Conflicts of interest**

There were no conflicts of interest in the writing of this report

## Appendix 2: Technical background

### A.1 User involvement

The SREA was carried out in a way that allowed potential users of the findings to be involved in its development. User involvement was built in to the process from the beginning with meetings and email contact between the CSR Policy Review Team, the Government Social Research Unit and the research team at the EPPI-Centre. The CSR Policy Review Team set the agenda for the mapping exercise and, once the results of the map were available, set the focus for the in-depth part of the SREA. Initially, the scope of the map was set broadly, including people with all types of mental health problems. Once the results of the map had been discussed with the Policy Team, it was decided that the priority should be on those people with common mental health problems, and this became the focus of the in-depth review. The CSR Policy Review Team also shared their developing framework for the comprehensive spending review with the research team to enable the research to follow a similar conceptual framework.

### A.2 Mapping exercise

Following recommendations for a two-stage commissioning process for systematic reviews in health promotion by Peersman et al. (1999), the SREA was carried out in two stages: a mapping exercise followed by an in-depth examination of a subset of studies. The mapping exercise

identifies and describes the range of relevant research activity that has been undertaken in terms of its substantive characteristics (e.g. type of intervention, type of population) and methodological characteristics (e.g. study design). Based on policy and practice needs, a subset of studies are chosen for in-depth examination, which assesses their quality and synthesises their findings. Since the initial specifications of systematic reviews within public policy are often broad, the mapping and quality-screening exercise is designed to enable the review's (or SREA's) commissioners and potential users to be involved in further specifying the precise scope and/or prioritising the questions for the in-depth examination. This also ensures that the work is manageable within the timescale.

The mapping phase of the SREA asked the following question:

*What research measures the impact of interventions among people with mental health problems on employment outcomes?*

Many different topic areas of research are included in the map and the aim is simply to describe the broad extent of research activity in this area. The quality of studies in the map was not assessed and their findings are not reported. The map was used to inform decisions taken with regard to the remainder of the SREA. In line with developing thinking in the CSR Policy Review Team, the map was used to

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determine the focus of the in-depth phase of the SREA.

### **A.2.1 Inclusion and exclusion criteria for mapping exercise**

#### *Inclusion criteria*

- Studies which include people who have a mental health problem (see Appendix 3 for definitions)
- Studies which include people with learning disabilities and/or substance/alcohol abuse as well as a mental health problem
- Studies which evaluate an intervention
- Studies which include employment outcomes

#### *Exclusion criteria*

- Studies which do not include any people with mental health problems
- Studies which include only people with substance or alcohol abuse (who have not been diagnosed with a mental health problem)
- Studies which include only people who are not of working age (i.e. under 16 or over 65)
- Studies which are not evaluating an intervention
- Studies which do not include any people in or returning to competitive employment (defined as a full or part-time position held by the client in an ordinary work setting, for which they were receiving payment at the market rate (Crowther et al., 2001)

Studies which do not report on a change in employment status (gaining competitive employment, retaining or losing competitive employment, returning to work from sick leave)

- Studies where no outcome data is reported (exclude any studies where no data, either

numerical or textual on outcomes from the intervention, are reported)

- Studies which score 1 on the Maryland Scale of Scientific Methods (Sherman et al., 1998, described below)
- Abstract of study not published in English
- Studies published before 1993

The SREA was restricted to studies published in English. This was because members of the team did not speak additional languages, did not have access to or the ability to search databases in other languages, and did not have the time or resources to screen and translate documents in other languages.

### **A.2.2 Identification of studies for the mapping exercise**

#### (a) Search strategy

Systematic searches were conducted on 14 major databases (PsycInfo, ASSIA, Econlit, ERIC, National Criminal Justice reference Service Abstracts, PAIS International, PAIS Archive, Social Services Abstracts, Sociological Abstracts Embase, Medline, Social Science Citation Index, Conference Abstract Index and the International Bibliography of the Social Sciences) and a thorough search of the internet was carried out. Specific searches were developed, tailored to each database (see Appendix 2 of the *Technical Report*). Searches were carried out between 26th June and 3rd July 2006, methodological filters were not used. When the topic area for the in-depth SREA was decided, an additional search of PsycInfo was conducted using specific terms for common mental health problems. Studies found in this search are not included in the map findings.

#### (b) Screening process

All records identified in the above process were downloaded, with their citations and abstracts where available, into EPPI-Centre reviewing software: EPPI-Reviewer (Thomas, 2002) and screened for relevance against the above

inclusion criteria.

Where the downloaded citation did not contain enough information on which to base a decision, the study was included at this stage.

### **A.2.3 Classification of studies for the mapping exercise**

Relevant titles and abstracts were then coded on EPPI-Reviewer software using a standardised keywording system developed by the EPPI-Centre (Peersman and Oliver 1997). The titles and abstracts were classified in terms of type of study (e.g. RCT, cohort study), the country where the study was carried out, the study population (e.g. general population, young people), and the focus of the study (e.g. mental health, alcohol). Titles and abstracts describing or evaluating interventions were assigned additional keywords about the intervention site, intervention type and provider.

Each study was also coded with ‘review-specific’ keywords which described the type of mental health problems experienced by the participants, the interventions being evaluated and the outcomes reported.

The classification of titles and abstracts is a departure from our usual practice of retrieving full papers before embarking on classification. This modification to the usual methods was required in order to fit with the more compressed timeline necessitated by the SREA. The process was a success, in that it was possible to complete the map much more quickly than is usually the case and, while there was a less detailed map, there was sufficient detail to inform the decision regarding the in-depth phase of the SREA. However, it may have lead to the exclusion of potentially relevant studies, if they did not mention the use of employment outcomes in the title or abstract.

## **A.3 In-depth phase of the SREA**

### **A.3.1 Moving from broad characterisation (mapping) to in-depth SREA**

Final decisions about which studies to include in the in-depth phase of the SREA, and thus the inclusion and exclusion criteria for in-depth assessment, were made after consultation with the CSR Policy Review Team on the basis of the results of the mapping exercise and their on-going policy review. The map contained studies focusing on people with any mental health problem, whereas the in-depth phase concentrated on people with common mental health problems (see Appendix 3).

The in-depth phase of the SREA asked the following question:

*What is the evidence for the effectiveness of interventions among people with common mental health problems on employment outcomes?*

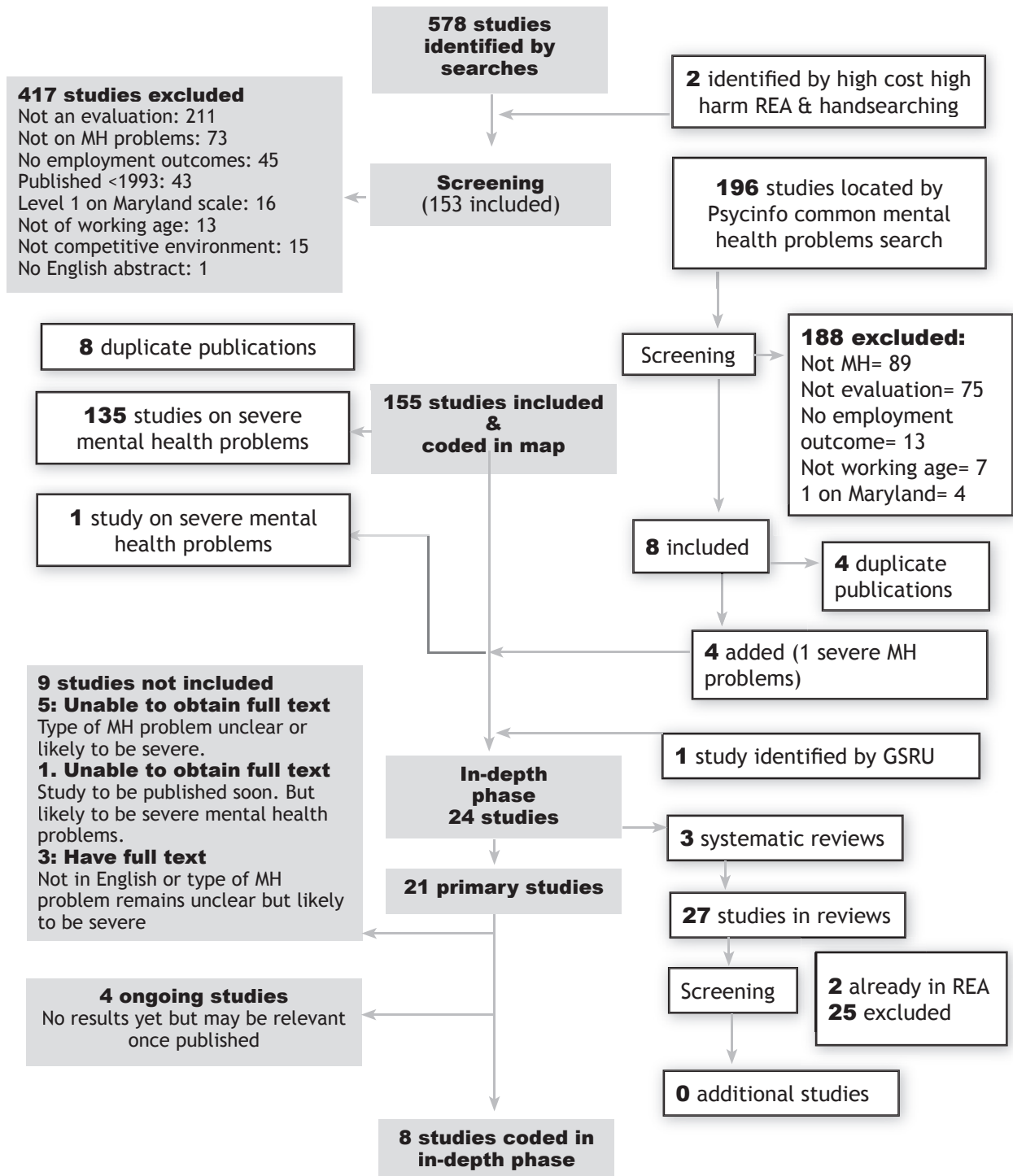
The additional exclusion criteria for the in-depth phase were as follows:

- Studies in which the majority of participants have severe mental health problems
- Studies for which a full report, in English, is not available
- Systematic or other types of review (where reviews appeared relevant included studies were obtained and screened against the SREA criteria)

A graphic showing the flow of studies through the SREA is shown in Figure 1.

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**Figure 1** Flow chart of studies through the REA





### **A.3.2 Detailed description of studies in the in-depth SREA**

All studies which were not classified as being on severe mental health problems entered into the in-depth phase of the SREA. Full text of the studies, and where necessary additional information from study authors, was obtained in order to properly assess eligibility and enable detailed coding.

The EPPI-Centre has standard frameworks to collect data from many different study designs, which have been used in previous reviews examining both effectiveness and the barriers to and facilitators of health behaviour change (e.g. Harden et al., 2001; Rees et al., 2004). Items from two previous frameworks were combined and adapted to structure the extraction of data of studies in this SREA.

### **A.3.3 Assessing the quality of studies, data extraction and weight of evidence**

Before the results of the studies were used to draw conclusions for the SREA, all studies were examined for threats to their reliability and validity. All data extraction and quality assessment was conducted electronically using another part of the same software used in screening and categorisation, EPPI-Reviewer (please see Appendix 4.1 of the Technical Report for the full tool). Agreed versions were entered onto the EPPI-Centre's computer database for analysis and storage. An adapted version of the Maryland Scale was used in order to assess the quality and reliability of our studies' findings. Studies at Level 1 were excluded, while Level 2 studies were rated as 'low' and their findings with regard to effectiveness treated with caution. (See Appendix 4.1 of the Technical Report for ratings of the included studies.)

#### *Tools*

The Maryland Scale of Scientific Methods (Sherman et al., 1998) was developed originally for appraising the quality of criminal justice research and was adapted for use in this study.

Using the scale, each study was assessed and ranked (1-5) for its internal validity to answer 'What works?' types of questions. It should be noted that assessing the quality of studies to answer other types of questions, such as the acceptability or appropriateness of an intervention, would require a completely different tool. The scale takes account of causal direction, 'history' (the possibility that passage of time could have caused intervention results rather than the intervention itself), chance factors, and selection bias. Our rating of studies mapped on to research designs in the following way:

Level 1: Single group single point (post-test only or correlational study)

Level 2: Single group pre- and post-test OR non-equivalent control group (with no adjustment in analysis)

Level 3: Cluster randomised trial with only one cluster in each arm OR non-random cluster OR non-equivalent control group pre- and post-test design where outcome = change in pre-test / post-score (with no other adjustment in analysis)

Level 4: Non-randomised controlled trial where groups are demonstrated to be equivalent on important variables (includes studies where post-hoc analyses are used to create equivalent groups, e.g. path analysis or structural equations modelling)

Level 5: Randomised controlled trial with cluster or individual allocation of multiple individuals / clusters into groups

#### *Methods*

Two researchers worked on each study, comparing their decisions and coming to a consensus. Each researcher independently completed the data extraction and quality assessment tool, and selected those parts of the findings which addressed our research questions. They met (in person or by phone) and compared responses to all questions and agreed a final version of the data extraction.

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Studies were judged to be of high, medium or low methodological quality, based on the answers given to the tool described in the previous paragraph. In addition, each study was judged to be very useful, quite useful, or not useful in helping to answer the SREA question. For example, a study could meet all the inclusion criteria but not present findings by the relevant population group. A judgment about the overall weight of evidence was reached by consensus. This was based on a combination of how useful the study was in helping to answer research question and the quality of the study. In terms of overall weight of evidence, studies were considered to be high (i.e. high quality and very useful), medium high (i.e. high quality and quite useful or medium quality and very useful), medium (i.e. medium quality and quite useful), or low (low quality and any level of usefulness, or not useful and any quality). The results of studies judged to have a low overall weight of evidence were treated with caution and, when their results are reported in the evidence statements (see below), the possibility that their results are not due to the intervention is stated.

#### ***A.3.4 Methods for synthesis***

Following guidance from a recent ESRC Methods Programme project, the theoretical mechanisms underlying the types of interventions included in this SREA (Popay et al., 2006) were examined. The studies fell naturally into

two camps: those that were concerned with improving employment and those concerned with improving mental health. Given the data that was available and the highly heterogeneous nature of the interventions, populations and research designs of the studies in the review, it would not have been appropriate to undertake a statistical meta-analysis. Instead, a narrative synthesis was conducted, based on the division of studies described above.

After data extraction and quality assessment, two researchers (LU and JT) tabulated details of the context, population and outcomes of the studies and drew up 'evidence statements' which summarised the results of each study individually. These statements took into account the following:

- the specific issues which were relevant to our SREA (i.e. the relevance of the findings of each study)
- the reliability of each study (in terms of their ability to address the issues relevant to this SREA)

The evidence statements were then translated between studies within the two overall types of interventions identified above in order to produce more generalised conclusions.

## Appendix 3: Defining common mental health problems

Studies on any mental health problem were included in the map phase of the SREA; however, only those in which the majority of participants had common mental health problems went on to the in-depth phase.

### ***Mental health problems included in the in-depth rapid evidence assessment***

Depression, anxiety disorders, panic disorder, agoraphobia, phobias, obsessive-compulsive disorder, insomnia/sleep disorders, dysthymia, stress, eating disorders, body dysmorphic disorders, adult ADHD, post-traumatic stress disorder, post-natal depression, cyclothymia

It was anticipated that studies might be found which included patients with other mental health problems not listed here, so an inclusive, negative definition of what constitutes a 'common mental health problem' was adopted, similar to that employed by other studies (Seymour and Grove, 2005; Waddell and Burton, 2004); studies were provisionally included unless they were mainly on people with severe mental health problems and were then assessed on a study-by-study basis.

### ***Mental health problems excluded from the in-depth rapid evidence assessment***

Schizophrenia, other psychotic disorders, psychotic depression, bi-polar disorder, dementia/cognitive disorders, personality disorders, manic disorders, adjustment disorders, sexual disorders

Some of the disorders categorised as common mental health problems have severe forms (particularly depression). If a study described its participants as having severe mental health problems, it would be excluded, even if those participants had disorders classified as common. If the study did not mention severity, it was assumed that most participants could be classified as having a common mental health problem.

The results of this systematic review are available in four formats:

**SUMMARY**

Explains the purpose of the review and the main messages from the research evidence

**REPORT**

Describes the background and the findings of the review(s) but without full technical details of the methods used

**TECHNICAL REPORT**

Includes the background, main findings, and full technical details of the review

**DATABASES**

Access to codings describing each research study included in the review

These can be downloaded or accessed at <http://eppi.ioe.ac.uk/reel/>

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