

Technical report for SCIE Research Review on the prevalence and incidence of parental mental health problems and the detection, screening and reporting of parental mental health problems

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Sally Pulleyn produced this final report from the team's various electronic documents with the usual care and attention to detail, for which we are very grateful.

Finally, we wish to acknowledge the forbearance and patience of our colleagues in SPRU, who have dealt with our virtual 'absence' from other work as we have worked our way through a task that was both large and more complex than could have been imagined at the outset.

Abbreviations used in text

AMHS	Adult mental health services
BHPS	British Household Panel Survey
CAMHS	Child and adolescent mental health services
CIS-R	Revised Clinical Interview Schedule
CRD	Centre for Reviews and Dissemination, University of York
DSM-IV	Diagnostic and Statistical Manual of Mental Disorders, 4th edition
EPOC	Effective Practice and Organisation of Care Cochrane Collaboration
EPPI	Evidence for Policy and Practice Information and Coordinating Centre
ERIC	Education Resources Information Center
GHQ	General Health Questionnaire
HALS	Health and Lifestyle Survey
MHPs	Mental health problems
NICE	National Institute for Health and Clinical Excellence
ONS	Office for National Statistics
OPCS	Office for Population Censuses and Surveys
PHQ	Patient Health Questionnaire
PMHPs	Parents with mental health problems/parental mental health problems
PSE	Present State Examination
PSQ	Psychosis Screening Questionnaire
RCT	Randomised controlled trial
SCAN	Schedules for Clinical Assessment in Neuropsychiatry
SCID-II	Structured Clinical Interview for DSM-IV Axis II Disorders
SCIE	Social Care Institute for Excellence
SPRU	Social Policy Research Unit

Potential conflicts of interest

None known for review team.

Both specialist advisers have written in this area.

Executive summary

Background

The systematic review reported here was carried out to inform the development of practice guidelines for local authority and health services about the planning, delivery and evaluation of services to support parents with mental health problems (PMHPs) and their children.

Aims and objectives

The overall objective of the work reported here was to review and present research evidence that could inform the practice guidelines, to identify gaps in knowledge, and to evaluate the strength of the existing evidence, both in general and specifically in relation to marginalised families and those from black and minority ethnic communities.

Two separate questions were addressed by the review reported here and reviewed separately:

- Question one: What is known about the incidence, prevalence, and types of parental mental health problems in the UK?
- Question two: What systems, tools and opportunities exist in children's services, adults' services and family services for detecting parental mental health problems, in both the UK and elsewhere? How these are used, by whom and in which contexts?

Methods

The methods of the review were determined by a protocol agreed between SCIE and the University of York team after the commission to carry out the work had been granted.

Searching

The review drew on an existing 'systematic map' of identified literature on parental mental health problems, created by SCIE before the review reported here was commissioned. Further searches for relevant literature were carried out by the University of York team. These included rerunning searches carried out to identify material for the systematic map, to bring it up to date, and completely new searches to identify epidemiological literature.

Screening and selection

Pre-defined inclusion and exclusion criteria were used to screen material for overall relevance and then, after full reading of the text, for selection for inclusion in the review. Members of the team worked in pairs and to agreement to screen and select material.

Data extraction

Data were extracted from full publications into Excel spreadsheets. For question one, there were three worksheets and 22 columns headings in the database. For question two, there were three worksheets and 29 column headings. Data were extracted by one member of the team and then checked by other members.

Quality appraisal

The review covered material with a wide variety of research designs and methods, and the studies included to address the two questions were of very different types. There is no agreed quality assessment instrument for epidemiological material of the sort being reviewed here so for question one we devised our own quality markers, based on those developed by others for similar types of epidemiological research. For question two, where quantitative material was being reviewed we used the sampling and analysis sections of a framework developed to appraise surveys (see Petticrew and Roberts, 2006).

Synthesis

A narrative synthesis approach was used for both questions.

Findings

Five thousand, seven hundred and five publications were identified (728 from the systematic map, 4,977 from the updating and new searches) and screened for relevance. Of these, 4,857 were screened out. Eight hundred and forty-eight publications were thus read in full. Of these, 31 studies, reported in 39 publications, were selected for review for question one and 23 studies, reported in 24 publications, for question two.

Quality of included studies

The large scale, representative sample surveys of all adults identified for question one were largely of high quality. Studies of populations of people with MHPs and other sub-

groups (for example of people from black and minority ethnic communities) were usually of poorer quality. For question two, few of the studies reviewed were of high quality, although several were described as feasibility studies.

Results

Question one

- On the basis of the large-scale, high quality national surveys it is probable that, in a population of UK non-elderly adults, at any given time, 9-10 per cent of women and 5-6 per cent of men will be PMHPs. Only a very small proportion (less than half a per cent) will have any kind of psychotic disorder. The remainder will have 'common mental disorders' such as depression or anxiety. Given the episodic nature of MHPs it is likely that higher proportions of adults will, in their lifetime, experience being a PMHP.
- There is a higher level of MHPs among mothers than among fathers, and a strong association between PMHPs and lone parenthood. However, this association also seems to be related to lone parents' relative socio-economic disadvantage.
- A high proportion of adults in acute psychiatric hospital settings may be parents – at least a quarter and probably more, especially among young women.
- Evidence about parental mental health problems in black and minority ethnic communities and among marginalised groups (such as homeless people) is weak and difficult to interpret.

Question two

- The quality of the studies included here was variable, making it difficult to generalise beyond the groups studied. These studies can be seen as a basis from which further research, particularly in UK settings, could be developed.
- Left to their own devices, professionals who work with adults are probably not very good at identifying PMHPs or their children. Those who work with children may be somewhat more attuned to identifying PMHPs.
- Professionals' perceptions of their own competence or training in relation to MHPs and/or children, views about the professional role, and time for proper consultation with parents (in primary care settings) were all identified as influencing whether or not professionals look for and identify PMHPs.
- Other barriers to identification include parents' and children's wish to be identified. Both parents and children worry about professionals perhaps 'rushing to judgement' about parenting competence if MHPs are identified. Being identified or identifying oneself is therefore seen as carrying potentially high risks.
- Parents were often sceptical about professionals' or services' own competence to make judgements about parenting issues. By contrast, a continuous relationship with a trusted professional might encourage parents and children to reveal MHPs.

- In the studies that evaluated formal screening for MHPs, few parents took up referral for specialist support. Again, anxieties about judgements being made about their parental competence were involved here. There was also scepticism about referral for psychiatric support when current socio-economic circumstances were seen as the main 'causes' of MHPs.
- Research on the use of simple screening tools for depression, for use in both primary care and other settings, suggests that they are feasible to implement and do prompt professionals to work with PMHPs. However, all the evidence here is from USA studies.

Chapter 1 Introduction and methods

Background

The Social Care Institute for Excellence (SCIE) is carrying out a project with the aim of publishing practice guidelines for local authority and health services about the planning, delivery and evaluation of services to support parents with mental health problems (PMHPs) and their children. This project arose from a Social Exclusion Unit report 'which identified parents with MHPs and their children as one of the four groups most likely to face barriers to getting their health and social needs addressed' (SCIE Commissioning Brief, 2006: 1). The work is in partnership with the National Institute for Health and Clinical Excellence (NICE), the National Collaborating Centre for Mental Health, and SCIE's Parental Mental Health and Child Welfare Network.

With a view to including systematic reviews of the research evidence as part of this project, SCIE, with consultancy from the Evidence for Policy and Practice Information and Coordinating (EPPI) Centre, completed a 'systematic map' of English language research literature on parental mental health problems published between 1985 and May 2005 inclusive (Bates and Coren, 2006). The searching and selection criteria for the map were designed to identify material about the extent and impact on the family of parental mental health problems, and the accessibility, acceptability and effectiveness of available and potential service interventions for PMHPs. The mapping exercise did not involve any appraisal of the quality of the material identified, data extraction or synthesis of findings. However, material identified in the searches carried out for map development was screened for relevance by the mapping team, and was assigned key words related to, for example, the groups covered, the nature of the service intervention, the professionals involved, the setting and so on.

In autumn 2006, SCIE commissioned two systematic research reviews from the Social Policy Research Unit (SPRU) at the University of York, under its 'registered providers' agreement (SCIE, 2006) and it is the first of those reviews that is reported here.

- **The first review** concerns the prevalence, incidence, detection of, and screening for PMHPs. It examines what is known about the numbers of PMHPs and how parents, children and families with support needs can be identified. This covers not just those parents with an 'official' diagnosis but also those parents who do not necessarily come to the attention of primary health services or specialist mental health services.
- **The second review** concerns access to, acceptability and impact of services/interventions to support PMHPs, their children and families. It shows what is known about access to and acceptability of services and interventions available to support parents, children and families and how these influence outcomes.

Both reviews have used the systematic map referred to above. In addition, the original searches were re-run to bring the searching up to date, and new searches identified

additional sources of evidence. Additional exclusion criteria added by SCIE when the reviews were commissioned were that, for the purpose of the review, mental health problems would **not** include 'sole diagnoses of substance misuse, ante-natal or post-natal depression, mental health problems during pregnancy and up to six months after birth, or Munchausen's Syndrome by Proxy' (SCIE Commissioning Brief, p.4). A further limitation – exclusion of literature on parents who are in prison – was added after the review had started.

This technical report describes the processes by which the first review was carried out and its detailed findings. The technical report for the second review is published as Beresford et al (2008).

For ease of reading, and in order to keep to the SCIE Framework for systematic reviews (Coren and Fisher, 2006) definitions and discussions of key terms and concepts are located in endnotes.

Central to the overall project, and to the work described in this report, are issues of equality and diversity and the involvement of PMHPs, their family members (including children and young people), and others who provide them with informal support. A particular concern has been the need to attend to the strength of evidence about marginalised families and those from black and minority ethnic populations. SCIE's advisory group for the overall project includes service users and carers and this group has commented on and informed the review at crucial stages in its development and progress.

Research and policy background

The research and policy background to the overall project was outlined in the commissioning brief for these reviews and we will not repeat the detail here.

Research shows a strong link between parental mental health problems and outcomes for those parents, their children and other members of their family (see, for example, Beardslee et al, 1984; Lapalme et al, 1997; McMahon et al, 2002; Kane and Garber, 2004). However, it is also clear that factors act to ameliorate or exacerbate poor outcomes. Some of these factors are inherent to the individual, for example, the type of mental health problem, age, sex, and additional health problems. Others are socially learned – for example coping and parenting skills – or socially constructed or created – for example, ethnicity, marital status, social exclusion, discrimination and disability. Still others are the services/interventions or features of service systems that parents, children and families encounter. (See Elgar et al, 2004 for an overview of the biological, psychological and social factors that may play a part.)

The evidence base about the impact of parental mental health problems is relatively large. Similarly, understanding about the interactions between inherent and socially learned, constructed or created factors and outcomes is growing, particularly as sophisticated statistical methods begin to be applied to large scale data sets (for

example, Eamon and Zuehl, 2001; Targosz et al, 2003; Eley et al, 2004). By contrast, there is a relative paucity of evidence on the numbers and proportion of parents in the UK who experience mental health problems, and on the ways in which interventions and services that encounter parents, children and families can detect or facilitate the reporting of PMHPs. The review described here addresses these issues.

There are other systematic reviews relevant to the general area of PMHPs but none duplicates the exact focus required for this SCIE review, and we have found no review that specifically addresses the incidence, prevalence or identification of parental mental health problems overall. The National Institute for Health and Clinical Effectiveness has consulted on national clinical management and service guidance on antenatal and postnatal mental health, published in February 2007. This guidance draws on two systematic reviews – one of clinical literature and one of health economics literature. It also includes information on the incidence and prevalence of mental health problems for mothers in the perinatal period (defined as during pregnancy and the first postnatal year). However, the SCIE review specifically excludes perinatal mental health problems, although the NICE document does suggest that ‘aspects of the guidance may be considered appropriate to the mental healthcare of mothers of young children over one-year-old’ (National Collaborating Centre for Mental Health, 2007: 54).

As would be usual in any systematic review, we checked the reference lists of other identified systematic reviews, pertinent to the current topic, for relevant material not already identified in the systematic map or by our additional searches.

Objectives

The overall objectives of the two reviews were:

- To review and present research evidence which will inform practice guidelines on how health and local authority services should plan, deliver and evaluate their provision to support parents with mental health problems and their children.
- To identify gaps in knowledge and evaluate the strength of the existing evidence base, both overall, and specifically with respect to marginalised families and black and minority ethnic families.

The SCIE commissioning brief and subsequent discussion with the York research team identified the following specific research questions for the review reported here:

1. What is known about the incidence¹ and prevalence² and types of parental mental health problems³ in the UK? What does this evidence tell us about both total populations of parents⁴ and children⁵ and, where data are available, for population sub-groups⁶?
2. What systems, tools and opportunities exist in children’s services, adults’ services and family services for detecting⁷ parental mental health problems in the UK and elsewhere? How are they used, by whom, and in which contexts?

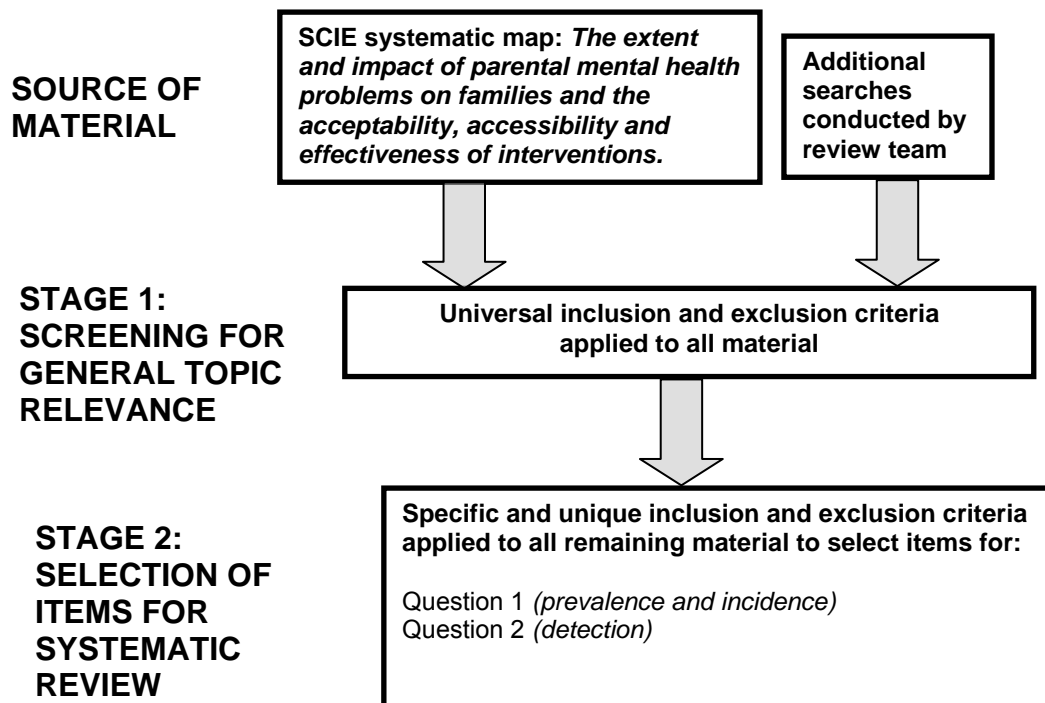
Criteria for inclusion of studies in the review

A two-stage process was used to identify studies for inclusion in the review. The first stage (screening for general topic relevance) relating to prevalence and incidence and to detection and reporting used a single set of inclusion and exclusion criteria. For the second stage (selection for inclusion in this review), inclusion and exclusion criteria specific to each research question were used (see Figure 1.1). The process of screening and selecting material is described below (pages 5-7).

The inclusion and exclusion criteria for both screening and selection were driven predominantly by the aims of the review and the criteria used in the generation of the systematic map. In addition, we added some criteria for exclusion based on research design, namely:

- Material based on *single* case studies of individuals or opinion pieces (screening stage).
- Material that is wholly descriptive where there is no evidence of either qualitative or quantitative structured enquiry being used⁸ (screening stage).
- PhD studies, unless subsequently published in some form (selection stage). The initial screening exercise that SCIE asked us to carry out (see page 13) identified PhDs that were of potential relevance to the review. However, the timetable for the review did not allow us to read all of these to make judgements about their quality. We thus took the pragmatic view that subsequent publication of the work from a PhD suggests that the PhD was of reasonable quality and therefore should be included in the review when it also met other inclusion criteria. We identified publications from PhDs by a combination of author and forward citation searches.

Figure 1.1: The screening and selection process



Stage one: screening for general topic relevance

Inclusion criteria

- Parents with mental health problems/the mental health of parents.
- Prevalence or incidence or detection or screening or self-reporting.

Exclusion criteria

- Not based on structured enquiry.
- Case study based on a single case.
- Opinion piece.
- Published before 1985.
- Not English language.

Stage two: selecting for inclusion in the systematic reviews

Question one

To identify, extract and synthesise research evidence on the incidence, prevalence and types of parental mental health problems in the UK. This evidence should be for both total populations of parents and children and for population sub-groups (where data are available).

Inclusion criteria

- Prevalence/incidence of mental health problems in total populations or total sub-populations of parents.
- Prevalence/incidence of parents in total populations or total sub-populations of people with mental health problems.
- Prevalence/incidence of parental mental health problems in total populations or total sub-populations of children⁹.
- All study types.

Exclusion criteria

- Not UK data.
- Prevalence/incidence of mental health problems among parents of children who are, because of their own needs, difficulties or symptoms, using non-universal services (for example, children attending behaviour disorder clinic)¹⁰.
- PhD, unless subsequently published.

Question two

To identify the range of systems, tools and opportunities in place in children's services, adults' services and family services in the UK and elsewhere for detecting parental mental health problems and describe how they are used, by whom and in which contexts.

Inclusion criteria

- Method or tool for detecting, screening, reporting, self-reporting for parental mental health problems AND its use in a service setting.
- Identification of parenting status among adult mental health service users.
- Aspects of service organisation or delivery aimed at detecting, screening for or reporting/self-reporting parental mental health problems.
- Factors that enhance detection, screening or reporting/self-reporting.
- Factors that impede detection, screening or reporting/self-reporting.
- Any setting or service.
- UK and non-UK.
- All study types.

Exclusion criteria

- Test of psychometric properties of method or tool for detecting or screening for parental mental health problems without evidence of application in a 'real-life' setting.
- PhD, unless subsequently published.

Searching

The SCIE team devised search strategies for the systematic mapping before the York team became involved (see Appendix 2 of *Children and families' services systematic map report: The extent and impact of parental mental health problems on families and the acceptability, accessibility and effectiveness of interventions*, Bates and Coren, 2006). The searches for the systematic map were last run in May 2005 and needed to be updated by us for the purposes of this review. We used the same strategies on the same databases, where this was possible. Although we endeavoured to use the same search strategies as used for the SCIE map, this was not always possible when thesaurus terms had changed or, as in the case of CareData, the database had been replaced (see pages 8-10).

We also carried out some focused, additional searches, both electronic and otherwise. All these additional searches were confined to material published in the English language since 1985, in order to maintain consistency with the systematic map.

1. We conducted a search focusing on service settings outside health, social care and education where supportive services/interventions might be delivered. The systematic map had identified very few studies of these settings, and where they were reported they were rarely the main focus of the report but part of a wider intervention programme. We did this via web searches and contact with experts in the field of social security, employment services and housing to judge whether there were other sources of evidence that we should consider.
2. We searched conference proceedings and international and national research registers to identify ongoing or recently completed research. Researchers were contacted for further details about the research and any yet unpublished results. Members of SCIE's Parental Mental Health and Child Welfare Network also forwarded information about on-going studies that they were aware of to the York research team.
3. We used web searches to identify resources that might contain material generated by user-led enquiry.
4. Throughout the review process, we identified potentially relevant references from studies included in the review (including review articles and systematic reviews) but, after discussion with SCIE, did not formally review any of these after May 2007 because of the additional burden of work this would have entailed (see pages 11-12).

5. Towards the end of the review period, we carried out forward citation searches for all studies included. For reasons explained in more detail below, potentially relevant material identified via these routes was not formally reviewed but was used to gauge the coverage achieved by the search strategies.

Updating of SCIE searches

When updating previous work, it is standard practice to include any new, relevant index terms that have emerged since the original work was completed and this is what was done here. In all other respects, the searches were run exactly as stated in the report wherever possible. However, this was not possible where databases had changed (for example, CareData has been replaced by Social Care Online), ceased to exist (for example SIGLE), or undergone major changes in interface design. In some instances, a lack of detail in the original documentation meant that the original search strategies could not be reconstructed reliably from the published search reports. In these cases, we contacted the team at SCIE for clarification, which they provided wherever possible. Where it proved impossible to clarify the details of the original search strategy, we used what we considered to be the most logical interpretation of the available data in collaboration with the SCIE team.

The SCIE searches were last run in May 2005 and we updated them by searching back to January 2005, to avoid any possible gaps caused by time lags in entering reports onto electronic databases.

Databases searched

- PsycINFO
- MEDLINE
- EMBASE
- CINAHL (Cumulative Index to Nursing & Allied Health Literature)
- HMIC (Health Management Information Consortium)
- The Cochrane Library
- National Research Register (NRR)
- ASSIA
- National Criminal Justice Reference Service Abstracts
- ERIC (Educational Resources Information Center)
- C2 SPECTR and C2 RIPE
- Social Services Abstracts
- Social Work Abstracts
- Social Care Online (Searched to replace CareData)
- Childata
- CommunityWISE.

SIGLE was not searched as it is no longer active and the database had ceased to be updated before the original searches were carried out in 2005.

The detailed search strategies are included as Appendix 1.

Additional searching

Focused additional searches were carried out. All these searches were confined to material published in the English language since 1985, in order to maintain consistency with the systematic map.

In addition, in order to maintain consistency with the systematic map, these new strategies for the educational databases and the grey literature databases were closely based on the SCIE searches carried out in 2005. The one, agreed, difference was the inclusion of personality disorders as a category of mental health problem. Although this personality disorders category was not included in the original searches or the search updates, it was considered important by the SCIE team that personality disorders were included in the additional searches.

1. Epidemiological searching

Searches were conducted to identify high quality epidemiological evidence about the prevalence and incidence of adult mental health problems in the UK. These searches were designed to identify any adults, rather than limiting to persons specifically identified as parents, in order to enable the team to place the relatively limited number of studies that identify parents with mental health problems into context within the wider, adult, literature.

The following databases and websites were searched on 29 January 2007:

- MEDLINE (1950-2007 January week 3) (OVID)
- EMBASE (1980-2007 January week 4) (OVID)
- CINAHL (1806-2007 January week 4) (OVID)
- HMIC (1979-2006 November) (OVID)
- Psycinfo (1985-2007 January week 4) (OVID).

The detailed search strategies are included in Appendix 1.

2. Educational settings as a place where detection of PMHPs might take place

The ERIC (Educational Resources Information Center) database was searched for the original map in 2005. Initial experimentation with other databases that cover educational material suggested that a search of the Australian and British Education Indexes (AUEI, BRIE) might locate potentially relevant material that is not available in ERIC. Since the

original map did not contain a search strategy for these databases, we produced our own, using the SCIE PsycInfo strategy as a template.

The detailed search strategies are included in Appendix 1.

3. Service settings outside health, social care and education where parents with mental health problems or children affected by parents with mental health problems might be detected or screened, or where supportive interventions might be delivered.

The York team contacted experts in the field of social security, employment services and housing to judge whether there were other sources of evidence that should be considered.

Experts consulted:

- Dr Roy Sainsbury, Social Policy Research Unit, University of York (social security and employment).
- Professor Suzanne Fitzpatrick, Centre for Housing Policy, University of York (housing).

4. Grey literature

We searched conference proceedings and research registers to identify ongoing or recently completed research.

The following Internet sources were searched in February 2007:

- Clinical Trials.gov
- Current Controlled Trials
- ISI Proceedings: Science and Technology (ISI web of knowledge)
- ISI Proceedings: Social Science and Humanities (ISI web of knowledge).

5. Material generated by user-led enquiry

We searched relevant web sites to identify resources containing material generated by user-led or voluntary sector enquiry.

Websites searched in December 2007 and January 2008:

- Barnados
- Carers UK
- Childline
- Children's Society
- Defeat Depression (site found to be closed)
- Depression Alliance

- First Steps
- Mental Health Foundation
- MIND
- National Phobics' Society
- NSPCC
- Princess Royal Trust for Carers
- Royal College of Psychiatrists – Young People's section
- SANE
- The Site
- Turning Point
- Young Minds.

6. Reference checking/citation searching

It is common practice in systematic reviews to check reference lists of included publications to identify any new material that appears relevant to the review in question, to obtain that material, and then to screen it for inclusion in the same way as material identified via searches. Soon after we began identifying publications in this way, we became anxious about the amount of apparently new material that we were identifying that was not in the SCIE map.

We carried out an initial exercise, based on the reference lists of three publications that seemed central to the SCIE map (Olsen and Clarke, 2003; Oyserman et al, 1994; Canino et al, 1990) and submitted the output of this exercise to SCIE for checking against all the material that had been identified when they were developing the map.

We identified 48 references from these three publications that appeared relevant to the SCIE map, including studies about the impact of parental mental health problems (which were not included in the two reviews carried out by the York team but were a part of the original mapping exercise). Of these, 28 (58 per cent of the total) were not present in the map. SCIE checked these against the original searches and found 12 (43 per cent of those not in the map) had been identified, but later excluded. Four of these 12 were related to peri-natal or post-natal mental health problems, which were excluded from the review. The remaining 16 (57 per cent of those not in the map) had not been found in the searches. Of these, SCIE felt that eight (29 per cent of those not in the map) would have been excluded, had they been found, and six (21 per cent of those not in the map) included. They were unable to track down two of the 28 references in order to judge whether they would have been included in the map.

We learned from the feedback from this exercise that, part way through the development work for the SCIE map, books and book chapters had been excluded on the basis of 'study design'. We had not been aware of this until this point (April 2007). Partway through the coding processes, a decision was taken at SCIE to exclude books and book chapters (not reports) from the map unless they were relevant systematic or extensive research reviews. Many books and book chapters were overviews, and overviews had already been excluded from the map during the screening process on

the basis of study design. Other books and book chapters had already been excluded during the screening process for reasons of relevance and other criteria. Therefore, it is possible that a small number of relevant empirical research studies published only as books or book chapters would have been excluded at the coding stage because of this publication format. SCIE had found books difficult to deal with in terms of the map inclusion criteria and also in terms of coding. Within overviews, multiple interventions could be described. The logistics of getting hold of loan copies of books and processing a large volume of information into codes within short timeframes weighed against their inclusion. In all, five of the 12 'found but later excluded' and two of the eight 'not found but would have been excluded' references were to books or book chapters which had been or would have been excluded, regardless of their relevance.

It became clear from this exercise that we needed to have access to details of all the material that SCIE had identified when developing the map, not just those publications that had been included in the public version of the map. This was because we had no way of telling if the apparently new references we were identifying had been found by the original SCIE searches and later excluded, or whether we were identifying references that had not been found by the original searches.

After we were given access to this larger database, we ran a second exercise checking for the coverage of the original searches, this time using reference lists from 32 publications from the SCIE map that we had identified as literature reviews relevant to parental mental health problems (see Appendix 2 for a list of these publications). From these, we identified 136 publications that appeared relevant to the SCIE map, but which were not in it. Of these, 68 were not books, book chapters or otherwise unpublished conference papers. We then searched the larger database and found that, of this 68, 42 (62 per cent) were not there at all; in other words, the original searches had not found them. Obviously, not all of these apparently relevant articles or papers would finally have been included in the review, but this high yield of unidentified material does highlight the difficulty of using a global scoping exercise (which is what the SCIE mapping exercise was) to identify material for very specific systematic review questions.

These two exercises also indicated that tracking references from included papers would add very substantially to the timetable for the review. After a meeting with SCIE in May 2007, three decisions were made to reduce this additional burden (see Addendum).

First, it was decided that our reviews should, like the original SCIE map, not include any further books or book chapters (some had already been identified and included for review and these remained in). Secondly, we would not re-include any material that SCIE had already excluded from the map. Thirdly, it was decided that, while we would continue to identify apparently relevant references from the reference lists of publications included in the reviews, we would not pursue these any further. The results of this last exercise are recorded in numbers in the flow chart (Figure 1.2) and in detail in the reference listings at the end of the report (see page 121).

As a final exercise in reference checking, we carried out forward citation searches on all the publications included for review one question two and review two question two, in

other words the review questions most closely related to interventions or models of service delivery. This was carried out using OVID and CSA Illumina. The OVID search covered BNI, CINAHL, EMBASE, Ovid Medline, IBSS and PsychInfo. In both cases, we searched for subsequent citation of the publications included in the reviews. This generated further material (8 papers in total), published both before and after the SCIE searches and the updating searches. Details of the results of this exercise for the review reported here are included at Appendix 3. This material was not reviewed.

User/stakeholder involvement

These reviews were conducted as part of a wider SCIE project on parental mental health problems. This project has its own advisory structure, the membership of which included service users and carers, as well as practitioners and senior managers from a range of services. SCIE indicated that it wanted the reviews to use this structure for advising the review, rather than establish an additional advisory group.

In addition, the York team used two specialist advisers for the reviews. The specialist advisor for review one was Professor Howard Meltzer. He is a researcher in the field of large-scale, epidemiological surveys and has particular experience in mental health epidemiology.

Screening of studies

The reader is referred to the flow chart on page 5 (Figure 1.1) which depicts the screening process.

Figure 1.2 depicts the outcomes of the screening and selection processes. Table 1.1 indicates the numbers of publications screened and selected by their source.

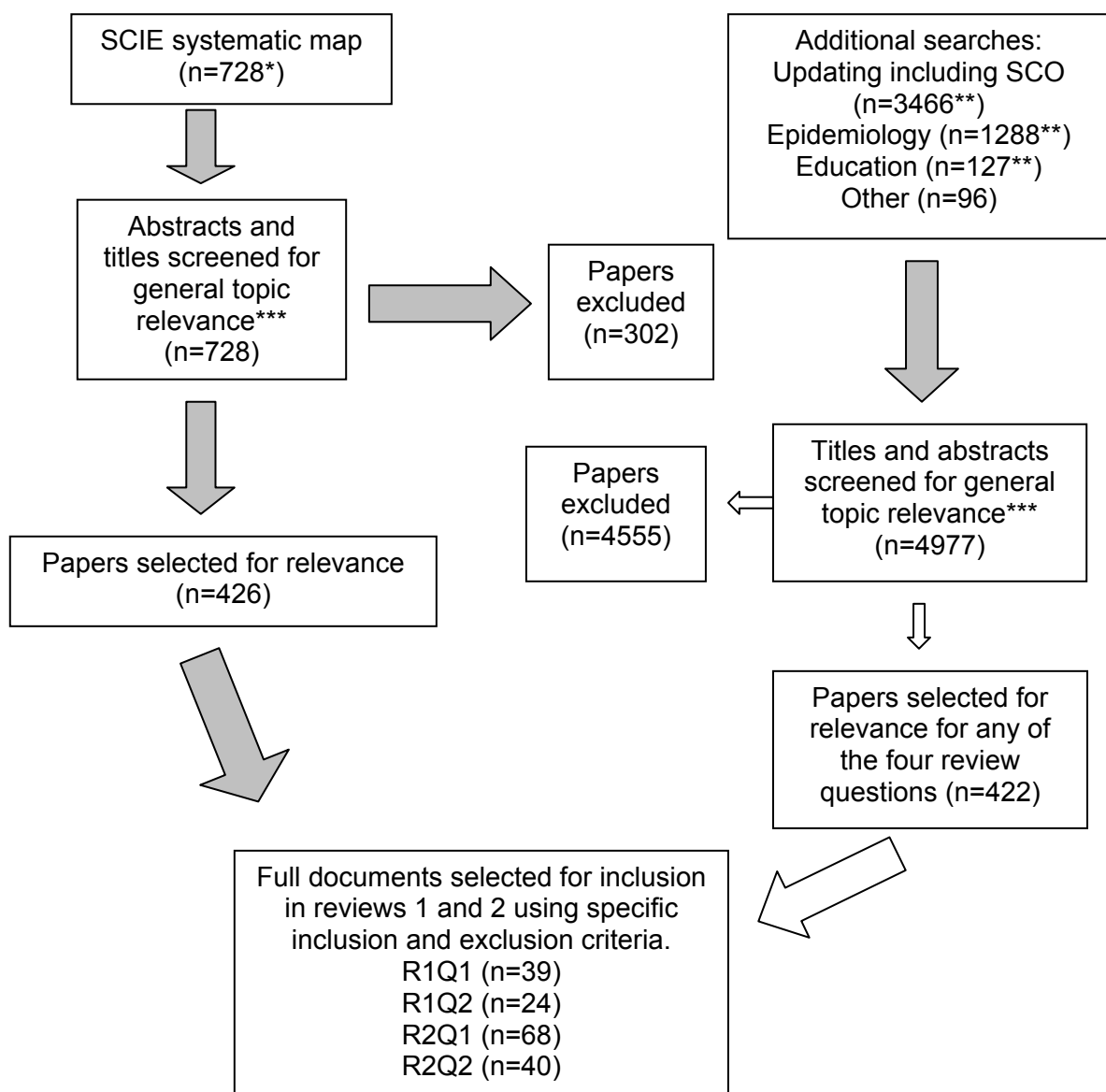
Screening for general topic relevance

The systematic map used as the basis for the reviews was created with a broader frame of reference than the review described in this report. As a result, not all items in the map were relevant. As recommended by SCIE, we took the 728 studies identified in the systematic map and judged their relevance to the review. SCIE was able to give us temporary access to the full publications that had been included in the map, and this helped this process. The inclusion and exclusion criteria for this stage were outlined above (see page 5).

The process at this stage was deliberately 'over-inclusive' and identified any material based on structured enquiry that was about prevalence or incidence, detection, screening or reporting, or about services/interventions or service use in relation to PMHPs. At this stage, no judgements about study type, quality or location were applied.

This stage was carried out by three members of the team, working in pairs, initially separately, and then to agreement. Decisions were made on the basis of titles and abstracts and skim reading of the publication. Decisions were recorded on a short form and reasons for exclusion were also recorded here. If agreement between a pair over whether or not a study should be included was not possible, then the third member of the team mediated. All three members worked on the first 23 records from the map and thoroughly discussed their individual decision making processes, to ensure consistency. Subsequent comparison of decision-making was carried out with all three members of the team present.

Figure 1.2: Filtering of publications from searching to selection to review



* The number of papers in the original map to which the York team was given access.

** After electronic de-duplication.

*** All screened for relevance for **all four** review questions.

Table 1.1: Papers selected for review by where identified¹

Where identified	Total n identified*	Total n selected for relevance	Unobtainable or further duplicates	Inclusion for review****
SCIE map	728	426	19	113
SCO search	944	153	112	1
Updating searches	2,519	94	23	23
Epidemiology searches	1,288	99	0	13
Additional educational index searches	127	20	4	1
Identified as potentially relevant from initial reference lists**	32	32	8	4
Additional references identified by York team**	26	12	0	13
References from Australian review paper***	12	12	3	3
'User' oriented website searches	-	7	-	0

* de-duplicated, except for SCO search.

** up to May 2007, see p. 12.

*** Fraser et al (2006).

**** Number includes duplicates where same paper was included for more than one review question.

¹ No additional source of material was identified by our housing and social security experts.

While the research team had temporary access to copies of articles contained in the map, books and some book chapters and reports were not available. As a result, all these, and other items where minimal information was available, were included into the next stage of selection.

Items identified by the updated and additional searches (see above) were screened for general topic relevance on the basis of titles and, where available, abstracts. The same process of three members of the team, working in pairs and to agreement, was used.

All material identified as potentially relevant to the reviews via the screening process was then obtained in hard copy form.

Selecting for inclusion in the systematic reviews

The inclusion and exclusion criteria for selecting items to be included in the systematic reviews were outlined earlier (see page 6). This selection stage was carried out on all material that had passed through the screening for general topic relevance.

The process for selecting items was the same as described for the screening stage, with team members working individually and then in pairs, to agreement. For this stage, however, decisions were based on a full reading of the text. The third member of the team mediated where it was not possible for a pair to agree on inclusion and a simple majority decision was applied. At this stage, we also logged which review questions the publication could be used to address; several contained information potentially relevant to more than one review.

Descriptive map

This stage was completed by SCIE for material up to May 2005 (Bates and Coren, 2006).

Data extraction

Data was extracted from full papers and publications into Excel spreadsheets. Our screening of material showed that the map included multiple papers from some studies. In some cases, these papers were barely distinguishable from one another. In other cases, the different papers reported different aspects and findings of the study. Before data extraction started, we tried to ensure that all papers for a given study were identified and relevant data extracted from them once and once only. This was not easy where differential listing of authors meant that the papers were not immediately identifiable as being from a single study.

Separate data extraction sheets were developed for the two questions in this review, reflecting their different focus and the very different nature of the material included. For both questions, papers were read in depth and frameworks for data extraction agreed by the research team (see Appendix 4). The column headings for the sheets were developed partly from the headings included in the protocol but also on the basis of our initial reading of the papers.

For question one, there were three worksheets and 22 column headings in the database.

Although we had intended to extract data on the incidence of parental mental health problems, as well as their prevalence, there were, in the end, no studies that reported incidence, *per se*.

For question two, there were three worksheets and 29 column headings in the database, covering both quantitative and qualitative data.

For both questions, primary data extraction was done by one member of the team (GP) and subsequently checked by other members of the team.

Quality appraisal of included studies

This review included a wide variety of research designs and methods. This made selection of quality appraisal tools more complex. The tools chosen were used to assess quality only and not overall relevance as this had been established through the screening and selection processes.

The studies included to address the two questions were of very different types; for question one they were, by definition, quantitative in nature and largely based on conventional survey or epidemiological methods. By contrast, question two included some studies that were exclusively quantitative, others which mixed both quantitative and qualitative approaches, and some that were exclusively qualitative in nature.

There are now several well-developed and tested quality assessment frameworks for randomised controlled trials (RCTs) and other comparative designs such as case controlled studies or interrupted time series (see, for example, Jadad, EPOC, Downs and Black, 1998). Further, there are quality checklists for studies that assess the potential links between exposure to 'risk' and potential harm. However, question one was about simple prevalence or incidence and, as discussed in the protocol for this review, there are no generally recognised quality assessment frameworks for studies of this sort. Indeed, there is a view that epidemiology, as a discipline, is further behind other fields in developing methodological research in systematic reviewing of the observational studies on which it depends (Bracken, 2001; Dickersin, 2002; Mallen et al, 2006). Despite contacting authors of reviews similar to ours – in that they were reviewing the prevalence or incidence of conditions or diseases – we have not been able to identify any quality assessment tools specifically for research of the type that produces information on prevalence and incidence. We therefore selected a set of quality assessment questions that had been developed by others for review of epidemiological research (Bhui et al, 2003; Macfarlane et al, 2001; Sullivan et al, 2001; Sullivan et al, 2003; Somers et al, 2006) and that seemed relevant to our particular focus. As far as we are aware, none of these questions has to date, been tested formally as part of quality assessment instruments but our specialist adviser was content with their choice.

Assessing quality for question two – on detection, screening and reporting of PMHPs, – created even more difficulty. Even the more structured of the quantitative studies included (for example, those formally testing the use of a screening instrument for a parental mental health problem) did not use a research design that would allow them to be assessed using any of the frameworks referred to above. As described in the protocol for this part of the review, we had intended to use the sampling and analysis

sections from the framework for appraising a survey, as described by Petticrew and Roberts (2006: 142-3). Where possible, we have done this, and report the results in Chapter 2. We did not formally assess the quality of the five studies broadly defined as qualitative (see Table 2.4). In the protocol for this review we had suggested using the framework published by the Government Chief Social Researcher's Office (Spencer et al, 2003), developed specifically for evaluation research. In the end, the five qualitative studies included were about attitudes towards identification, not evaluations of methods of detection. They thus provide context but do not add to the evaluative literature.

We had intended, both for qualitative and quantitative research, that we would add to our quality assessment frameworks the generic criteria related to user and carer involvement, informed consent and conflicts of interest suggested by Coren and Fisher (2006). However, we were aware that the notion of user involvement in research is relatively new and 'older' studies might not perform well against these criteria. In the end, we did not use these criteria as so few of the studies that were included in the review reported any information about them.

Quality assessment was not used to exclude studies from the review but to allow us to assign appropriate weight to their findings when results were synthesized. In terms of using a **formal** weighting system, the use of this is contested (Petticrew and Roberts, 2006) and we did not use this approach here.

A listing of the quality assessment questions used for question one and question two can be found in Appendix 5.

Data management and synthesis

The data extraction and analytical processes for the two questions (prevalence and incidence; detection, screening and reporting) were kept distinct from one another. This was because, as already outlined above, the publications included for the two questions, the methods used in them, and the nature of the data extracted from them, were completely different and thus required different approaches to synthesis (see below).

Quantitative data

Quantitative meta-analysis is used successfully in epidemiological research that explores aetiology: that is, research where one is exploring the impact of 'exposure' to risk factors and subsequent development of a disease or condition. The issue being addressed in question one was not of this type: it was simply, 'In what proportion of adults in the UK do parental responsibility and mental health problems co-exist?'

As we show in Chapter 3, two large, nationally representative sample surveys of mental health problems have been carried out in Great Britain in the past 15 years (Melzer et al, 1995 and associated papers; Singleton et al, 2001) and we believe that these give robust estimates of the overall prevalence of co-resident PMHPs, particularly

depression and anxiety. Given this, we did not see the need for meta-analysis. Beyond these large-scale national studies, we also identified studies that could throw light on the prevalence of PMHPs in different sub-populations (for example, among black and minority ethnic communities) or in different settings (for example, in acute psychiatric hospital care). However, in some cases there was only one study that was adequate to address questions about sub-populations – making meta-analysis impossible – or in others the variety of measures and definitions of mental health problems used made meta-analysis unwise.

For question two, similarly, meta-analysis did not seem a wise approach. The studies were very varied in their focus, methods, design and definition of mental health problems.

A narrative synthesis approach¹¹ was therefore used for both questions, albeit based on different types of data. For some studies, however, we did carry out **additional** analysis. The first type of additional analysis used the published results of the two large national surveys to estimate PMHP prevalence where this was not reported directly. This was either the prevalence of parental status among people with MHPs or the prevalence of MHPs among people who were parents. The ‘workings’ for this additional analysis are included at Appendix 6. The second type of additional analysis was used where the reported text and tables in publications were at variance, or where we felt that different conclusions could be drawn from the reported data from those the authors had drawn.

Qualitative data

A few of the studies included for question two could loosely be described as qualitative, in the sense that they were clearly not quantitative. However, as with the studies that addressed the issues of detection, screening and reporting, the methods and designs were various. Further, the depth of material presented in most studies was inadequate for full qualitative meta-analysis. Again, then, we have used a narrative synthesis, but acknowledge its lack of depth.

For both questions, we had hoped to be able to group the synthesised evidence in relation to specific population groups and/or service settings. This was possible for question one, but was possible in only limited circumstances for question two. Where it was possible, this is reflected in the tables and discussion of findings.

Chapter 2 Description and quality appraisal of included studies

Description of included studies

Question one Prevalence and incidence of parental mental health problems

Table 2.1 reports selected details of the 31 studies (reported in 39 publications) included for question one. These cover brief bibliographical details, some details of the type of the study, and the achieved sample size (i.e. the denominator for the prevalence figures). All the studies were carried out in the UK, as required by SCIE. Further details about and discussion of these variables and other details about the sample are included in Chapter 3.

Question two Detection, reporting and screening of parental mental health problems

Table 2.2 reports selected details of the 23 studies (reported in 24 publications) included for question two. These cover brief bibliographical details, some details of the method of detection, screening or reporting, the nature of the mental health problem of the parents included in the studies, some details of the participants in the studies and the country where the study was carried out. Further details about and discussion of most of these variables is included in Chapter 4.

As Table 2.2 shows, the literature in this area was dominated by studies from the USA. Thirteen out of 22 studies had been carried out in the USA, six in the UK, two in Australia, and one each in Canada and Greece.

Table 2.1: Details of studies included in review one question one

Author and date	Type of study	Nature of sample and location	Achieved total sample size ¹
Nationally representative sample surveys			
Macran et al, 1996	Nationally representative sample survey	Adults 18 and over in private households in GB	2,353
Meltzer et al, 1995 and associated papers	As above	Adults 16-64 in private households in England, Wales and Scotland south of the Caledonian Canal	10,108
Singleton et al, 2001; Singleton and Lewis, 2003	As above	Adults 16-74 in private households in England, Wales and Scotland	8,450 first stage 638 second stage
Cox et al, 1987	As above	Adults 18 and over in private households in England, Wales and Scotland	9,003
Meltzer et al, 2000	As above	Children 5-15 registered for child benefit and living in private households in England, Wales and Scotland	10,438
Longitudinal cohort studies			
Paykel et al, 2001; Rodgers, 1991	Longitudinal cohort study	Single, legitimate births in England, Wales and Scotland, 3-9 March 1946	2,980
Weich et al, 1998, 2001, 2003	As above	Adults 16 and over in private households in England, Wales and Scotland	8,979
Other studies of general populations			
Coleman et al, 1986; Wolkind, 1985	Survey of random sample of mothers identified at hospital ante-natal clinics	British born women, 16 and over, having first baby in London borough	124
Mortimer et al, 1992	Cross-sectional survey of mothers of children registered in a general practice	Children aged 3-11, not clear where	1,083 ²
Thompson et al, 1996	Cross-sectional survey of mothers of children registered in general practices	Children aged 3 between July 1990 and June 1991 in area of Hampshire	1,047
Studies of acute psychiatric hospital patients			
Coleman and Cassell, 1994	Case note review of admissions	Acute psychiatric hospital in-patients	47
Hatfield, Webster and Mohamad, 1997	Analysis of monitoring forms	Adults being assessed for compulsory admission under the 1983 Mental Health Act	3,554
Manderson and McCune, 2004	Retrospective case note audit	Acute psychiatric hospital inpatients in two hospitals in Northern Ireland	100

Author and date	Type of study	Nature of sample and location	Achieved total sample size ¹
Stormont et al, 1997	Not clear	Acute psychiatric hospital in-patients in West Lambeth	193
Tamarit and Yin-Har Lau, 1999	Retrospective case note audit	Acute psychiatric hospital in-patients in Redbridge	100
Studies of community samples of people with MHPs			
Howard et al, 2001	Case identification using standardised procedures	Representative sample of people with psychotic disorders in south London	246
Howard et al, 2002	Analysis of fertility data from GP records	Women aged 15-44 with psychotic disorders in general practices	6,303
Webster, 1990	Retrospective case note review	Women with schizophrenia in a north-west metropolitan borough	115
Studies of acute hospital and/or community samples of people with MHPs			
Iddamalgoda and Naish, not dated	Case note survey	People with schizophrenia and/or bipolar affective disorder using in-patient and out-patient psychiatric services in West Lambeth	Impossible to tell
Studies of homeless families			
Cumella et al, 1998	Survey of consecutive entrants of families with children to hostel	Parents in homeless families in Birmingham	113
Tischler et al, 2004	Survey of consecutive referrals to family support worker	Families receiving family support worker services in homelessness hostel in Leicester	49 families
Study of black and minority ethnic communities			
Mavreas and Bebbington, 1987	Survey of random sample of people with apparently Greek names	Greek Cypriot adults 18-65 in Camberwell	291
Nazroo, 1997	National, cross-sectional sample survey	Adults in black and minority ethnic communities, but only results for parents reported were for female lone parents with children under 11	2,867 'White' 1,205 'Caribbean' 1,273 'Indian' 728 'African Asian' 1,185 'Pakistani' 591 'Bangladeshi' 214 'Chinese'
Sonuga-Barke et al, 1998	Survey of mothers of children identified via schools and community centre	Mothers in Muslim families in North and East London, with three generations co-habiting and at least one child aged 5-10	54 families

Author and date	Type of study	Nature of sample and location	Achieved total sample size ¹
Sonuga-Barke and Mistry, 2000	Survey of mothers and grandmothers of children identified via primary schools	Mothers and grandmothers of Asian Hindu and Muslim children aged 6-11 in four primary schools in Newham	86 families
Sproston and Nazroo, 2002	Follow-up study from cross-sectional, national sample survey (1999 Health Survey for England)	Households containing adult 16-74 and children (not defined), from black and minority ethnic communities	838 'White' 733 'Irish' 695 'Black Caribbean' 650 'Bangladeshi' 641 'Indian' 724 'Pakistani'
Studies of other sub-populations			
Dowdney et al, 1999	Survey of families identified via death certificates and GP records	Parents in families where the other parent has died, in two adjacent health authorities	31 mothers 12 fathers
Kim-Cohen et al, 2005	Survey of probability sample of mothers identified from birth register	Mothers of same-sex twins. Followed up when twins 5 and 7 years old	1,116
Verduyn et al, 2003	Survey of mothers identified from community health records	Mothers of disturbed children aged 2 years 6 months and 4 years in Manchester	2,248

1. Sample size on which prevalence figures are based

2. Calculated by us

Table 2.2: Details of studies included for review one question two

Author and date	Method of identification studied	Study design or methods	Mental health problems included	Who was researched	Study participants	Country
Studies of professionals						
Bibou-Nakou 2003; 2004	Identification in the classroom	Focus groups and semi-structured interviews	Various	Teachers	68 female, 52 males. Teaching experience 6 to 18 years in both rural and inner city schools	Greece
Beiber, 2004	State policies about identification	Survey and telephone interviews	Various	Directors of state mental health authorities	Directors of state mental health authorities not otherwise described	USA
Nicholson, 1993	State policies about identification	Survey	Various	Directors of state mental health authorities	As above	USA
Olson, 2002	As part of normal practice	Random sample survey	Maternal depression	Primary care paediatricians	37% female, in practice for median 15 years, 22% had sub-specialty training, 12% in rural locations, 56% suburban, 32% urban, 16% in solo practice, 60% in group practice, 11% in 'staff model health maintenance organisation', 13% in other clinical settings	USA
Mayberry, 2006	As part of normal practice	Not entirely clear – qualitative development stage and questionnaire stage	Various	Not entirely clear – mental health workers and 'other' welfare workers	At qualitative stage: 60 mental health and other welfare workers. 42 women, 11 men and 7 who did not indicate their sex. At second stage: 20 mental health workers and 12 other mental health 'welfare' professionals. 27 women, 5 men	Australia
Crofts, 2003	As part of normal practice	Qualitative and questionnaire	Various	Family therapy workers and children's workers	No details given	UK

Author and date	Method of identification studied	Study design or methods	Mental health problems included	Who was researched	Study participants	Country
McCue Horwitz, 2007	As part of normal practice	Sample survey	Maternal depression	Paediatricians	745/832 were not trainees and 687 were involved in direct patient care After weighting to compensate for non-response: 52% female mean (SD) age 45.4 (10.4) 72% white; 15% Asian; 4% black; 4% Hispanic; 6% other 44% urban practice; 43% suburban; 13% rural 36% paediatric group practice 31% have 75+% white patients 34% have 50-74% white; 19% have 25-49% white; 17% have 0-24% white	USA
Heneghan, 2006	As part of normal practice	In-depth, telephone interviews	Maternal depression	Primary care paediatricians	14/21 female age range 26-61 5/21 white, 5 black, 2 other 5 practicing under 2 years, 12 2-8 years; 6 more than 8 years 16 in hospital-based practice, 1 solo private practice, 6 group private practice spend under 5 hours per week in primary care, 13 between 5 and 20 hours, 9 over 20 hours	USA

Author and date	Method of identification studied	Study design or methods	Mental health problems included	Who was researched	Study participants	Country
Studies of detection/identification systems						
Feinberg, 2006	Patient Health Questionnaire -2, followed up for mothers with a high score, by PHQ -9 and other questions	Focus groups and key informant interviews	Maternal depression	Mothers in 'inter-natal' period, health care providers and community-based professionals who provide services to mothers of young children	Not given	USA
Olson, 2006	Patient Health Questionnaire -2	Descriptive implementation study	Maternal depression	Paediatricians and nurse practitioners	Practices were in rural communities, with populations of 6,000 to 15,000 Medicaid was payer for 25% of patients Median household income for communities ranged from \$35,600 to \$49,000 95% of communities were white	USA
Flynn, 2004	CES-D and RAND 3-item screening instrument	Questionnaire survey including screening instruments	Maternal depression	Women attending emergency department with child ≤7 years	Mean (SD) age 30.4 (7.3) Mean (SD) age of child 2.6 (2.2) Mean (SD) no of children at home 2.1 (1.2) 40% college educated and beyond 83% married or cohabiting 74% White 74% privately insured	USA

Author and date	Method of identification studied	Study design or methods	Mental health problems included	Who was researched	Study participants	Country
Kemper, 1994	RAND 8-item screening instrument	Inclusion of screening instrument in normal well-child clinic records	Maternal depression	Parents of children under 6 being seen at well-child clinics, but only data for mothers reported	Mean age from 23.9 to 34.6 at different sites % white ranged from 45% to 95% Years of maternal education ranged from 11.4 to 15.9 Household income ranged from \$12,468 to \$53,736 % married ranged from 34% to 92%	USA
Detection studies						
Sheppard, 1997	Depression Social Assessment Schedule	Use of depression measures in wider study of social work practice with mothers receiving child and family services	Maternal depression	Mothers in care managed families and their social workers	Mother's age: 2% under 19; 30% 19-30; 53% 31-44; 15% over 44 'Family' employment status: 53% no paid employment; 24% skilled manual or partly skilled, or unskilled; 10% professional intermediate; 2% skilled non-manual; 11% unknown 72% reliant on state benefit Housing status: 26% owner occupied; 50% council; 15% private rented; 4% hotel/B&B; 5% other	UK
Vanharen, 1993	Research interview, compared against case notes	Structured interviews	Various	In- and out-patients of mental health services	None reported other than parental status - 47/100 had children, 37 had two or more and 15 (32%) had children under the age of 18	Canada

Author and date	Method of identification studied	Study design or methods	Mental health problems included	Who was researched	Study participants	Country
Needlman, 1999	Clinical interview and observation of mothers' behaviour by social worker. CES-D self-completion	Prospective, uncontrolled intervention study	Maternal depression	Mothers 18+ (and including grandmothers and other carers) referred to paediatric social workers for psychosocial assessment and intervention	Mothers' mean age 26 years Child's mean age 4 years 1 month 53% of children female 87% of children attending clinic were Medicaid or Medicaid-managed care insurance 92% African-American 13% receiving ongoing services from a MH professional and 29% history of past or present drug or alcohol abuse	USA
Gross, 1989	Normal record keeping	Chart (record) review	Various	Women admitted to acute psychiatric hospitals, aged 18-45 and with children under 6 years	21 women identified with children under 6 Mean age 31 (range 26-40) Mean parity 2.24 (range 1-6) Mean age of children 6.03 years (range 2 weeks to 21 yrs) 12 depression; 2 schizophrenia; 2 substance abuse; 6 'other' (=22 so presumably one dual diagnosis?)	USA
Iddamalgodan	Normal record keeping	Case note survey for in- and out-patient, postal survey of community-based workers, semi-structured interviews	Psychotic conditions	Parents with psychotic conditions	See R1Q1, not relevant to this part of the review	UK

Author and date	Method of identification studied	Study design or methods	Mental health problems included	Who was researched	Study participants	Country
Hatfield, 1997	Monitoring forms for assessment for compulsory admission	Analysis of data on monitoring forms	Schizophrenia affective psychoses, other psychoses	Adults being assessed for compulsory admission under the 1983 Mental Health Act	Of those assessed: 54% were women 34% were living alone 11% were in households with a partner and at least one child under 18; 4.5% were living alone and with at least one child under 18 54% were not 'in employment'; 21% were 'retired' 30% lived in owner-occupied housing 90% were: 'European/Caucasian'; 3.5% African-Caribbean; 2.7% Pakistani; 1.1% Indian; 0.3% African; 0.3% Bangladeshi Remainder (all <1%) various and other ethnicity. <i>Of men assessed:</i> 71% were aged 44 or under 31% of assessed men were or had been married <i>Of women assessed:</i> 54% were 44 or under 65% were or had been married	UK
Qualitative studies – views about identification						
Gilbert, 2002	n/a	Audit of data on child referrals to project. Focus groups with children of PMHPs – one for adults one for children	Various	Child users of project and adults known to project workers who had, as children, experienced PMHPs	Adults: six women, one man Children: five girls, two boys	UK

Author and date	Method of identification studied	Study design or methods	Mental health problems included	Who was researched	Study participants	Country
Fudge, 2004	n/a	Focus groups and peer interviews	Various	Children of PMHPs aged 7-12 years and 13-20 years	33 children aged 7-12 14 male, 13 female, 6 not recorded 25 young people aged 13-20 8 male, 15 female, 2 not recorded	Australia
Anderson, 2006	Patient Health Questionnaire and Beck Depression and Anxiety Inventories	Qualitative sub-study	Various	Mothers of children with mental health problems who themselves screened positive for significant mood and anxiety disorder	Average age 37.8 56% White; 40% African American; 4% other 83.5% high school education or greater. 38% married or living with a partner 43.3% working ft or pt an average of 36.2 hrs per week Over half had household income of 'under \$15,000 while supporting a mean of 2.6 children under the age of 18'	USA
Heneghan, 2004	n/a	Focus groups	Maternal stress and depression	Mothers bringing children for routine paediatric care in community and hospital-based practices	Mean age 27 years 70% black; 30% white 61% single 50% educated beyond high school 43% received public assistance Mean score on Psychiatric Symptom Index (PSI) was 26.3 (high ≥ 20) Mean no of children 2, with mean age of 6 years	USA
Slattery, nd	Normal record keeping	Focus groups and postal survey	Severe and enduring mental health problems	Women who use community mental health services and who have dependent children	One focus group with white mothers, one with mothers from BME communities. All said to 'share similar socio-economic background' (p.21). Samples said to have been 'matched along broad racial groups' (ibid). Details of postal q. sample not given	UK

Quality of included studies

The results of the quality assessment for question one are summarised in Table 2.3.

As might be expected, the large-scale, representative sample surveys of the population in Great Britain (Melzer et al, 1995; Singleton et al, 2001; Cox et al, 1987; Melzer et al, 2000) were most likely to score very highly on the quality questions used. By contrast, the studies of populations of people with mental health problems scored poorly, perhaps most surprisingly in relation to their use of clear diagnostic criteria and validated instruments for assessing mental health status, but also in the extent to which they demonstrated that the groups studied were representative. The studies of other sub-populations, including black and minority ethnic populations, were more variable in their quality. Here, the major weaknesses in the poorer studies were in recruitment of the sample, representativeness and the use of clear diagnostic criteria.

The results of the quality assessment for the quantitative studies included for question two are summarised in Table 2.4. Petticrew and Roberts (2006) do not suggest that the quality 'questions' used in their framework for appraising surveys can be added in any way to come to an overall assessment of quality. In any case, as outlined in the protocol for the review, we used only part of the framework here, related to aspects of sampling and analysis. Even so, Table 2.4 suggests various levels of quality in the studies reviewed.

The studies of professionals varied in their response rates; in some cases this was probably related to the size of the samples selected (and therefore the effort required to get a high response rate). For example, Nicholson (1993) and Biebel (2004) were studies of directors of state mental health services in the USA, of whom there are only 59, plus the District of Columbia. By contrast, McCue Horwitz et al (2007) had an original sample of 1,600 members of the American Association of Pediatricians. However, even a small-scale, local study failed to achieve overall response rates above 50 per cent (Crofts, 2003).

The studies of detection or identification systems did somewhat better in terms of response rates, but all suffered in their ability to generalise to other groups or settings, as they were based in specific geographical or service settings and, in one case (Kemper, 1994) on a 'convenience' sample. Further, from the point of view of generalising to the UK, all the studies of systems for detection or identification were carried out in the USA.

The studies that were about how and why PMHPs or their children actually are identified, were mixed in their overall response rates (good for some, poor for others) and largely limited in the extent to which their results could be generalised.

Overall, then, using the Petticrew and Roberts (2006) criteria, few of the studies reviewed for question two were of high quality. However, several of the studies were clearly labelled as feasibility studies – exploring whether detection or identification of PMHPs was possible or acceptable in certain health care settings, or testing systems that would allow detection or identification.

Table 2.3: Quality of studies included in systematic review of prevalence and incidence of parental mental health problems

Study (main paper or report)	Geographically and temporally defined population	Complete, random ¹ or consecutive recruitment	Response rate or follow-up rate of 70% or more	Representativeness of sample demonstrated or justified ²	Use of defined diagnostic criteria	Use of validated instruments for diagnosis	'Score' out of 6
Nationally representative sample surveys							
Macran et al, 1996	Yes	Yes	No	Yes	No	No	3
Meltzer et al, 1995	Yes	Yes	Yes	Yes	Yes	Yes	6
Singleton et al, 2001	Yes	Yes	No	Yes	Yes	Yes	5
Cox et al, 1987	Yes	Yes	Yes	Yes	Yes	Yes	6
Meltzer et al, 2000	Yes	Of children	Yes	For children, not parents	Yes	Yes	6 (for children)
Paykel et al, 2001	Yes	Yes	Follow-up rate: no Response rate for this study: yes	No	Yes	Yes	5
Weich et al, 2003	Yes	Yes	Yes	Yes	Yes	Yes	6
Longitudinal cohort studies							
Coleman et al, 1986	Yes	Yes	Yes	No	Not clear	Yes	4
Mortimer et al, 1992	Yes	Yes	Yes	No	Not clear	No	3
Thompson et al, 1996	Yes	Yes	No	Yes	Yes	Yes	5
Other studies of populations							
Coleman et al, 1986; Wolkind, 1985	Yes	Yes	Yes	Not clear	Yes	Yes	5

Study (main paper or report)	Geographically and temporally defined population	Complete, random ¹ or consecutive recruitment	Response rate or follow-up rate of 70% or more	Representativeness of sample demonstrated or justified ²	Use of defined diagnostic criteria	Use of validated instruments for diagnosis	'Score' out of 6
Mortimer et al, 1992	Yes	Not clear	Yes	No	Yes	Not clear	3
Thompson et al, 1996	Yes	Yes	No	Yes	Yes	Yes	5
Studies of people with MHPs							
Coleman and Cassell, 1994	Yes	Not clear	Not clear	No	No	No	1
Manderson and McCune, 2004	Yes	Yes	Yes	No	No	No	3
Stormont et al, 1997	Not clear	Not clear	No	No	No	No	0
Tamarit and Yin-Har Lau, 1999	Yes	Yes	Yes	No	No	No	3
Howard et al, 2001	Yes	Yes	Yes	No	No	No	3
Webster, 1990	No	Not clear	Yes	No	No	No	1
Hatfield et al, 1997	Yes	Not clear	Yes	Not clear	Yes	No	3
Iddamalgoda and Naish, nd	In part only	No	Not clear	No	No	No	0.5
Other sub-populations							
Cumella et al, 1998	Yes	Not clear	No	No	Yes	Yes	3
Tischler et al, 2004	Yes	Yes	Yes	No	Yes	Yes	5
Mavreas and Bebbington, 1987	Yes	Yes	Yes	Yes	Yes	Yes	6

Study (main paper or report)	Geographically and temporally defined population	Complete, random ¹ or consecutive recruitment	Response rate or follow-up rate of 70% or more	Representativeness of sample demonstrated or justified ²	Use of defined diagnostic criteria	Use of validated instruments for diagnosis	'Score' out of 6
Nazroo, 1997	Yes	Yes	Yes for 'White' population No for black and minority ethnic populations	No	Yes	Yes	4
Sonuga-Barke et al, 1998	Yes	No	Not clear	No	Not clear	Yes, but not for community population	1.5
Sonuga-Barke and Mistry, 2000	Yes	No	Yes	No	No	Yes, but not for community population	2.5
Sproston et al, 2002	Yes	For first stage only	No	No	Yes	Yes	3.5
Dowdney et al, 1999	Yes	Yes	No	Yes	Yes	Yes	5
Kim-Cohen et al, 2005	Yes	Yes	Yes	Yes	Yes	Yes	6
Verduyn et al, 2003	Yes	Yes	No	No	Yes	Yes	4

1. Stratified or non-stratified
2. Can include weighting to restore representativeness

Table 2.4: Quality assessment of quantitative studies included for review one question two, derived from Petticrew and Roberts (2006)

Study (first author and date)	Sampling			Analysis				
	Response rate	Denominator reported?	Is sample representative?	Is study large enough?	Is data description adequate?	Multiple statistical testing or much <i>post hoc</i> analysis?	Appropriate statistical analyses?	Evidence of other biases?
Studies of professionals								
Bibou-Nakou 2003; 2004 ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Biebel, 2004	100%	Yes	Total population	Yes	Yes	No	Yes	None obvious
Nicholson, 1993	100% for first stage	Yes	Total population	Yes	Yes	None carried out – descriptive study	n/a	Not clear – no information on funding
Olson, 2002	57%	Yes	Yes – but non-responders found to be more likely to be sub-specialists	Not clear	Yes	No	Yes, and adjusted p values for multiple testing	None obvious
Maybery, 2006	Not clear	Yes	No	Not clear	No	Yes	No	Not clear
Crofts, 2003	28% AMHS workers 54% CAMHS workers	Yes	Of the region where it was intended to inform practice	Not clear	No	None carried out – descriptive study	n/a	Not clear
McCue Horowitz, 2007	53%		Not clear	Not clear				
Heneghan, 2006 ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Studies of detection/identification systems								
Feinberg, 2006 ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

	Sampling			Analysis				
Study (first author and date)	Response rate	Denominator reported?	Is sample representative?	Is study large enough?	Is data description adequate?	Multiple statistical testing or much <i>post hoc</i> analysis?	Appropriate statistical analyses?	Evidence of other biases?
Olson, 2006	74% in phase 1, 67% in phase 2	Yes	Unlikely – but this is acknowledged	Not clear	Yes	Not apparent	Yes, with adjustment for clustering	None obvious
Flynn, 2004	92%	Yes	Not clear	Not clear	Yes	No	Yes	Not clear – no information on funding
Kemper, 1994	Not reported	Not for results tables	Unlikely – ‘convenience’ sample	Not clear	Yes	None carried out – descriptive study	N/a	Not clear – no information on funding
Detection studies								
Sheppard, 1997	79%	Yes	Unlikely – two ‘districts’ only	Not clear	Yes	Yes, with no correction	In part	Not clear – no funding information
Vanharen, 1993	Not clear	Yes	Unlikely – single hospital only, but described as pilot study	Not clear – unlikely to be able to detect difference with numbers studied	No	No	Yes – but numbers small	Possible – investigator worked in hospital being studied
Needlman, 1999	56% first stage 46% second stage	Yes	Unlikely – single primary care clinic	Not clear	Yes	Yes, but no correction for multiple testing	No – use of t tests with no testing of normality of distribution	Not clear
Gross, 1989	n/a – based on audit of records	Yes	Not clear	Not clear	Yes	None done – descriptive study	n/a	Not clear

Study (first author and date)	Sampling			Analysis				
	Response rate	Denominator reported?	Is sample representative?	Is study large enough?	Is data description adequate?	Multiple statistical testing or much <i>post hoc</i> analysis?	Appropriate statistical analyses?	Evidence of other biases?
Hatfield, 1997	n/a – based on analysis of records	In limited analyses only	Yes	Not clear	No	No	Yes, but missing data not always explained or quantified	There is clearly missing data but not clear whether this is in relation to parenting status, diagnosis or both
Iddamalgoda, nd	n/a for parents – based on audit of records Not clear for survey of professional	Yes	Yes for parents for area where study was intended to inform practice	Not clear	No	None done – descriptive study	n/a	Not clear – report writers may be employed by NHS trust being studied
Qualitative studies – views about identification								
Gilbert, 2002	-	-	-	-	-	-	-	-
Fudge, 2004	-	-	-	-	-	-	-	-
Anderson, 2006	-	-	-	-	-	-	-	-
Heneghan, 2004	-	-	-	-	-	-	-	-
Slattery, nd	-	-	-	-	-	-	-	-

1. Largely qualitative approaches used in study

Chapter 3 Results from review of epidemiological evidence on the prevalence and incidence of mental health problems and parenthood

Introduction

This chapter presents results from the 31 studies (39 papers) included in the separate systematic review of evidence on the prevalence and incidence of PMHPs in the UK. It explores the prevalence of PMHPs in the population at large, the presence of MHPs among populations of parents, and the extent of parenthood among people with MHPs. Incidence of PMHPs was rarely reported¹².

The material identified and selected during this systematic review was of three main types: general population studies – both nationally representative sample surveys and total populations¹³ – that reported mental health **and** parental status; studies of sub-populations of people with MHPs that reported parental status; and studies of other sub-populations that reported both mental health and parental status. Within each type we found further sub-divisions, determined either by the type of study reported or by the type of sub-population. These are outlined below:

1. General population studies
 - Nationally representative sample surveys
 - Longitudinal and cohort studies
 - Other population studies.
2. Studies of sub-populations of people with MHPs
 - Acute hospital populations
 - Community populations¹⁴
 - Acute hospital and community populations.
3. Studies of other sub-populations
 - Homeless families
 - Black and minority ethnic communities
 - Other sub-populations.

The results from the three types of studies are presented in separate sections below.

In what follows, we present simple prevalence figures that, where not available directly, we have calculated ourselves from the data presented in the selected publications.

This literature suffers from the problem of multiple definitions of mental health problems, identified and measured with different instruments. Throughout we use the terminology used in the original publications, rather than attempting to impose artificial categorisation on what we have reviewed.

It has been similarly difficult to impose order on definitions of parenthood. Some surveys report the presence of children in households without indicating whether these children are still dependent. Others report that adults live in households with dependent children, without being clear if these adults have any parental or quasi-parental responsibility for the children. Further, some studies report that adults are parents, but do not indicate the age of the children or whether or not they are still living with their parents. For the purposes of presenting findings here, we have tended to assume that if adults are living in households with children under the age of 18 then they are parents, on the basis that most households in Britain containing adults and children are, indeed, 'families'. This is not a perfect solution but the only one that is available to make some sense of what follows.

For the general population surveys, non-resident parents (who were included in the SCIE definition of parents if they also had 'a primary caring responsibility for a dependent child aged 18 years or younger', see Chapter 1) are likely to have been missed, because the analysis in these surveys is based on co-residence with children.

Table 2.3 reported the quality assessment for the publications reviewed here. As explained in Chapter 2, there is no agreed checklist for the quality of descriptive epidemiological studies and none of the checklists available for health services research more generally are relevant for these types of studies because they concentrate on intervention studies. We therefore devised and applied a very simple checklist for this review. As Table 2.3 showed, and as one would expect, the nationally representative sample surveys performed well on the criteria we selected. The longitudinal studies did slightly less well, as a group, and the studies of people with MHPs largely performed very badly. The sub-population studies were very variable in their performance, but the Mavreas and Bebbington (1987) study demonstrates that it is possible to do studies of sub-populations, in the community, without compromising quality.

Findings from general population studies

Coverage

As described in Chapter 2, we defined general population studies as those that examined 'a general population defined by geopolitical boundaries' (Macfarlane et al, 2001).

Ten general population studies were included in the review, published in 18 separate papers or reports (see Table 3.1).

Five of the studies were based on nationally representative, sample surveys; two of these (Meltzer et al, 1995 and related papers; Singleton et al, 2001 and related papers) were the national surveys of psychiatric morbidity among adults carried out by the Office for Population Censuses and Surveys/Office of National Statistics in 1993 and 2000. Another was the 1999 national survey of the mental health of children and adolescents (Meltzer et al, 2000) that reported the mental health of the children's mothers. The

fourth and fifth (Macran et al, 1996; Cox et al, 1987) were surveys of health more generally defined, but including aspects of mental health.

Two of the general population studies included were based on representative, longitudinal cohort studies (Rodgers, 1991; Paykel et al, 2001; Weich et al, 2003 and related papers) and the remainder (three studies, four papers) on representative samples of sub-national populations (Coleman et al, 1986; Wolkind, 1985; Mortimer et al, 1992; Thompson et al, 1996).

The coverage of the national studies and longitudinal studies was, in all cases, Great Britain (England, Wales and Scotland) although some did preclude fieldwork north of the Caledonian Canal, thereby excluding the Highlands and Islands of Scotland (see Table 3.1). The coverage of the sub-national studies was usually one or more local authorities or based on a health service boundary (for example, a primary care trust).

All the national, sample surveys of adults involved identifying one adult at random within a private household to be interviewed. If the person selected was not present at the time the interviewer called, arrangements would be made to return, if the person was likely to be available within the next week or so. This means that those who were in acute hospital care at the time of the surveys may or may not have been interviewed and, therefore, overall prevalence of PMHPs may have been underestimated by a small amount.

The ages of the adults included varied slightly from survey to survey, but the 'core' age range covered in all of them was 18 to 64 years. In all cases, the sampling methods for these surveys aimed to ensure that the total sample of adults selected was nationally representative in terms of age, sex, socio-economic status and so on. Where this was not achieved fully, data were weighted at analysis stage to restore representativeness. The definition of 'adults' by age in all these national studies will have meant that parents under the age of 16 (Meltzer et al, 1995; Singleton et al, 2001; Weich et al, 1998, 2001, 2003) or 18 (Cox et al, 1987; Macran et al, 1996) may not have been identified separately.

The sample for the national study of mental health problems among children and adolescents was identified via Child Benefit records. The majority of parents interviewed (over 95 per cent) were mothers.

The two longitudinal surveys were different from one another. The papers from Paykel et al (2001) and Rodgers (1991) are based on reanalysis of the 1946 birth cohort study. This study identified all single, legitimate births in the week of 3-9 March 1946 and followed up the individuals at various stages throughout their lives. The data reviewed here are based on the information that was collected from the individuals at age 36 and 43 years. The papers by Weich and colleagues, by contrast, are based on reanalysis of the British Household Panel Survey (BHPS), which gathers data on all adults aged 16 years and over in the included private households. In both cases, adults who were in hospital at the time of the survey or follow-up are unlikely to have been included.

Table 3.1: Population, sample size and follow-up rates for general population studies

Study	Population	Size of population	Size of total original sample	Size of total achieved sample	Response or follow-up rate
Nationally representative sample surveys					
Macran et al, 1996	Adults 18 and over in private households in GB	All 18 or over in private households	3,746	2,353	63% ¹
Meltzer et al, 1995 and associated papers	Adults 16-64 in private households in England, Wales, and Scotland south of Caledonian canal	All 16-64 in private households	12,730	10,108	79%
Singleton et al, 2001; Singleton and Lewis, 2003	Adults 16-74 in private households in England, Wales and Scotland	All 16-74 in private households	12,792	First stage: 8,886 'co-operated' of whom 8,450 gave full interviews Second stage: 1,036 selected, 638 interviewed	First stage: 69% Second stage: 62%
Cox et al, 1987	Adults 18 and over in private households in England, Wales and Scotland	All 18 or over in private households	12,254 addresses	9,003	74%
Meltzer et al, 2000	Children 5-15 registered for child benefit and living in private households in England, Wales and Scotland	All parents of children 5-15 in private households	14,250	10,438	73%
Longitudinal cohort studies					
Paykel et al, 2001; Rodgers, 1991	Single, legitimate births in England, Wales and Scotland 3-9 March 1946	13,687	5,363	2,980 who completed psychiatric interview at both 36 and 43 years of age	54% of original sample; 87% of those seen at age 36; 89% of those seen at age 43

Study	Population	Size of population	Size of total original sample	Size of total achieved sample	Response or follow-up rate
Weich et al, 2003 and associated papers	Adults 16 and over in private households in England, Wales and Scotland	All 16 and over in private households	5,511 households, 9,522 people aged 16-74	8,979 who completed GHQ	94%
Other studies of populations					
Coleman et al, 1986; Wolkind, 1985	British born women, 16 and over, having first baby in London	Around 550	131	124	87% at final follow up
Mortimer et al, 1992	Children aged 3 to 11, not clear where	1,104	1,104	1,083 ¹	98% ¹
Thompson et al 1996	Children aged 3 between July 1990 and June 1991 in area of Hampshire	1,618	1,618	1,047	65%

1. Calculated by us

As Table 3.1 shows, in two of the sub-national studies children were the target group (but with data collected about their mothers), while in the other two mothers were the direct target group. In all four cases, complete ascertainment of all target groups was attempted. In one case, the ascertained population was then sampled randomly to generate the group for whom mental health status was reported (Coleman et al, 1986). This means that the numbers on which prevalence data in this study is based are much smaller than in the other studies.

The value of samples for epidemiological research is affected by their success in getting as close as possible to 100 per cent response rates or follow-up. As Table 3.1 shows, these rates varied considerably across the studies included here. The nationally representative, sample surveys interviewed between 63 per cent and 79 per cent of their original samples.

The 1946 birth cohort study, because of the long period over which it has been running, had much lower follow-up rates than the British Household Panel Survey which has been in existence only since 1991 (54 per cent and 94 per cent follow-up of the original samples, respectively). Part of the higher attrition in the birth cohort study is, of course, due to time: death and immigration of sample members and simply 'losing touch' with the study explain much of the loss. It is possible that both death and 'losing touch' may have been higher among people with mental health problems, but it is difficult, without further analysis of the original data, to know what impact this might have on estimates of the prevalence of PMHPs. Further, changes in service provision for people with mental health problems, in particular the closing of long-stay hospitals, may have had an impact on the opportunities for people with enduring MHPs to become parents since the birth cohort was first identified.

The four sub-national population studies also varied in their success in obtaining data from all of their target populations – from 65 per cent to 98 per cent.

Characteristics of the achieved sample in general population studies

Table 3.2 reports selected characteristics of the achieved samples for all the population studies included in the review. Here we define 'achieved sample' as the group on which the papers included in the systematic review were based, rather than the population on which the original study was based. In most cases, these are the same; in others not. For example, the Cox et al (1987) paper was based on a representative sample of all non-elderly adults, but reports data only for women.

Sex

As we saw above, the papers included are based on studies of samples that were largely representative of the populations from which they were drawn. However, the papers that throw light onto PMHPs are sometimes based on only part of the sample studied – usually women. For example, Macran et al (1996), analyse data only for

women. In other cases, although information about parenthood was collected for all adults, it was sometimes reported for women but not men. As a result, we have a more limited picture of the prevalence of MHPs among fathers than among mothers, and of parenthood among men with MHPs than among women with MHPs (see Table 3.2).

Age

All the nationally representative sample surveys, by definition, produced samples that were representative of the age groups covered. However, parents form a younger subgroup within such surveys and their ages were never reported separately in the publications reviewed here. Consequently, it is only in the papers based on the 1946 birth cohort study (Paykel et al, 2001; Rodgers, 1991) where everyone was the same age when studied, and the sub-national studies which are based **only** on parents, where it is possible to say anything definite about the ages of parents (Table 3.2).

Marital status

Again, while the marital status of respondents in the large national studies was, by definition, representative of the population at large, we are limited in what we understand of the marital status of parents, for the same reasons as outlined in the previous paragraph. The exception is the national survey of children and adolescents (Meltzer et al, 2000), which gives a clear picture of the marital status of the parents of British children aged 5 to 15 years in 1999. Over three-quarters of these parents were couples and only 7 per cent had never had a partner.

In the sub-national studies, as Table 3.2 shows, marital status of mothers varied, from 9 per cent of mothers of 3 year old children defined as 'lone parents' in the Thompson et al (1996) paper, to 20 per cent of first-time mothers in London, in the Coleman et al (1986) study. Marital status was defined differently in different studies, with co-habitation sometimes reported separately and sometimes not.

Socio-economic status

Again, while the national studies produced representative samples in relation to socio-economic variables, we can say little about the distribution of socio-economic status in parents, as a group. The national and longitudinal studies do not report these variables for parents separately, and only two of the sub-national studies report limited socio-economic details about mothers (see Table 3.2). Again, however, the national survey of children (Meltzer et al, 2000) gives us a picture of the households of children aged 5 to 15 years. This shows that 14 per cent of all parents were in households where no one was in paid work and 24 per cent in households where the gross household income was less than £200 per week in 1999.

Table 3.2: Sex, age, marital status, socio-economic status and ethnicity of achieved sample in general population studies

Study	Sex	Age	Marital status	Socio-economic status	Ethnicity
Nationally representative sample surveys					
Macran et al, 1996	Female	Not reported	Not reported	Not reported	Not reported
Meltzer et al, 1995 and associated papers	Representative	Representative weighted sample	Representative weighted sample	Representative weighted sample	Weighted data: 93.7% 'White'; 1.5% 'West Indian/African'; 3.1% 'Asian/Oriental'; 1.7% 'other'
Singleton et al, 2001; Singleton and Lewis, 2003	Representative for main study For follow up study: 43% male; 57% female	Representative for main study At time 1 for follow-up sample: 29% 16-34; 21% 35-44; 16% 45-54; 13% 65+	Representative for main study At time 1 for follow-up sample: 51% married; 9% co-habiting; 19% single; 7% widowed; 11% divorced; 4% separated.	Representative for main study At time 1 for follow-up sample: respondents' gross weekly income <£100 28%; £100-199 25%; £200-299 16%; £300-399 11%; £400-499 9%; £500+ 11%.	95% 'White' 5% 'non-white'
Cox et al, 1987	Representative	Representative but PMHPs reported for women only	Not reported for whole sample	Not reported for whole sample	Not reported for whole sample
Meltzer et al, 2000	Over 95% female	Not reported	70% married; 8% co-habiting 7% lone parent (single); 16% lone parents (widowed, divorced, separated)	67% both parents working (incl. lone parents); 19% one parent working; 14% neither parent working; 7% professional; 31% managerial and technical; 12% skilled non-manual; 25% skilled manual; 15% partly skilled; 5% unskilled; 2% never worked; 3% other Gross weekly household income: <£100 6%; £100-199 18%; £200-299 15%; £300-399 12%; £400-499 10%; £500+ 38%	Not reported

Study	Sex	Age	Marital status	Socio-economic status	Ethnicity
Longitudinal cohort studies					
Paykel et al, 2001; Rodgers, 1991	Not reported for whole sample	36 at T1, 43 at T2	15% 'not married' at age 36 19% 'not married' at age 43	6% not in paid work at age 36 12% 'not working' at age 43 32% social class III m, IV or V at age 43 Social class not given for age 36	Not reported
Weich et al, 2003 and associated papers	Representative	Representative 16-74 years	Males: 69% 'spouse or cohabitee' Females: 67% 'spouse or cohabitee'	Males: 66% full-time employment; 5% part-time employment Females: 35% full-time employment; 22% part-time employment	Not reported directly here
Other studies of populations					
Coleman et al, 1986; Wolkind, 1985	Female	Mean 'in pregnancy' 22.4 years	80% married/cohabiting 20% 'single'	Not reported. Borough was 'deprived'	Not reported
Mortimer et al, 1992	Female	21-45, no distribution or means	Not reported	Not reported	Not reported
Thompson et al, 1996	Female	Not given	91/1047 (9%) lone parent	328/971 (39.5%) 'manual', on basis of father's occupation	Not reported

* Representative, national sample survey

** National cohort study based on all single, legitimate births in a single week in 1946

Ethnicity

As Table 3.2 shows, few studies reported the ethnicity of the achieved samples. However, those that were nationally representative should have reflected the overall ethnic composition of the population from which they were drawn. Meltzer et al (1995) and Singleton et al (2001) demonstrate this in Table 3.2. These proportions also demonstrate the problem of using nationally representative studies of this sort for exploring prevalence of sub-groups (PMHPs) within sub-groups (black and minority ethnic communities) as numbers become very small. In a later section of the chapter we review studies set up specifically to deal with this issue (Nazroo, 1997; Sproston and Nazroo, 2002).

How were parenthood and mental health problems defined?

All the national, representative sample surveys and the longitudinal cohort studies gathered information about parental status directly from adults in face-to-face interviews.

By contrast, the sub-national studies relied on administrative records to identify mothers – those who attended ante-natal clinics, those whose children were registered with a general practice, or from community health records for their children (see Table 3.3). The danger of this approach, of course, is that records may not be completely accurate and some parents may not attend clinics or even be registered with the health services. This may result in under-ascertainment of adults with MHPs who may be less likely to make themselves known to health services.

Mental health problems were identified in various ways in the studies included here.

The two, large national studies of psychiatric conditions in adults (Meltzer et al, 1995; Singleton et al, 2001) used the same approach (the Revised Clinical Interview Schedule – CIS-R – administered by trained, lay interviewers) to identify neurotic disorders, largely depression and anxiety. They also used a similar approach in screening for psychosis in an initial interview, followed up by a diagnostic interview (the Schedules for Clinical Assessment in Neuropsychiatry – SCAN) with a relevant professional. However, in the earlier study, the diagnostic interview was carried out by a psychiatrist, in the later one by a psychologist. Only Singleton et al (2001) appears to have screened for personality disorders, using screening questions in the initial interview and a follow-up interview with a psychologist using the Structured Clinical Interview for DSM-IV Axis II Disorders (SCID-II). However, data on personality disorder and parenthood were not reported separately in the relevant reports from this survey.

Others studies used the General Health Questionnaire (Cox et al, 1987; Weich et al, 2003; Thompson et al, 1996; Meltzer et al, 2000), and the Present State Examination (Paykel et al, 2001; Coleman et al, 1986). One study (Macran et al, 1996) used a 'psycho-social well-being scale' said to be comparable to the General Health Questionnaire, and in the remaining study (Mortimer et al, 1992) it was not clear how

mental health problems were identified. References to the papers that describe the instruments used are included as Appendix 7

Both national studies of psychiatric conditions (Meltzer et al, 1995; Singleton et al, 2001) used formal algorithms to assign adults to diagnostic categories, based on internationally agreed definitions. However, the CIS-R was also used in these studies with a 'cut-off' point of a score of 12 to define mental health problems in a more generic way.

Most other studies used cut-off points on the measures used to define mental health problems. Two of those using the 30 item version of the General Health Questionnaire (Cox et al, 1987; Thompson et al, 1996) used the same cut-off point of a score of four or more to define, respectively, 'possible' psychiatric disorder' or 'maternal disturbance'. The Weich et al papers used the 12 item General Health Questionnaire and a cut-off point of a score of three or more to define 'common mental disorder'. Similarly, parents of children and adolescents surveyed in the Meltzer et al (2000) national survey were defined by the same cut off point to indicate a positive screen for 'neurotic disorder'. These cut-off points are used widely in the literature to indicate 'caseness' after screening, but diagnosis is possible only after a clinical interview. There were no further common diagnostic criteria used, as Table 3.3 shows, making it difficult to make comparisons of prevalence and incidence across more than a handful of the studies.

In the Macran et al (1996) study the psycho-social well-being score was used as a continuous variable in regression models, so no assumptions about 'caseness' were made.

Prevalence and incidence of PMHPs in general population studies

Eight of the 10 studies identified as general population studies reported data about PMHPs in such a way that it was possible to generate simple prevalence figures from them and it is on those that we now concentrate. The other two (Macran et al, 1996; Weich et al, 2003) presented information only as part of a regression model or as odds ratios and these results are discussed later. Detailed results from these eight studies are included in Table A8.1 in Appendix 8. The tables on which we based our calculation of prevalence rates, where these were not reported directly in the publications, are in Appendix 6 as Tables A6.1 to A6.4.

Table 3.3: Ascertainment of parenting and mental health status in general population studies

Study	How was parenting ascertained?	How was mental health status ascertained?	Who ascertained diagnosis?	Diagnostic criteria used?
Nationally representative sample surveys				
Macran et al, 1996	Face to face interview	Psycho-social well-being scale used during interview – said to be comparable to GHQ	Via data analysis	N/A. Psycho-social well being score used as quasi-continuous variable in regression models
Meltzer et al, 1995 and associated papers	Face to face interview	CSI-R and PSQ (and associated questions) during interview used by trained interviewers	Computer algorithm for CIS-R to produce ICD diagnoses. Positive screen for psychosis followed by clinical interview with psychiatrist using SCAN	CIS-R scores of 12+. ICD-10 diagnoses derived from CSI-R, SCAN and questionnaires as appropriate
Singleton et al, 2001; Singleton and Lewis, 2003	Face to face interview	CIS-R for neurotic disorders used by trained interviewers. Interview sift questions for personality disorder or psychosis, followed up by interviews with trained psychologists for those screening positive	Neurotic disorders – computer algorithm applied to data from CIS-R. Personality disorders SCID-II with trained psychologist. Psychosis SCAN with trained psychologist	CIS-R scores of 12+. Neurotic and psychotic disorders: computer algorithms based on ICD-10 diagnostic criteria for research. Personality disorders: computer algorithms based on DSM-IV
Cox et al, 1987	Face to face interview	Self-completed GHQ – 30 item version	Via data analysis	Cut off point between 4 and 5 to indicate 'possible' psychiatric disorder
Meltzer et al, 2000	Face to face interview	Self-completed GHQ – 12 item version	Via data analysis	Score of 3 or more to indicate positive screen for neurotic disorder
Longitudinal cohort studies				
Paykel et al, 2001; Rodgers, 1991	Face to face interview	PSE at age 36 used by nurse interviewer PSF at age 43 used by 'interviewers'	Via data analysis	Wing Index of Definition applied to PSE scores – cut off of ≥ 5 . PSF cut-off score of ≥ 31

Study	How was parenting ascertained?	How was mental health status ascertained?	Who ascertained diagnosis?	Diagnostic criteria used?
Weich et al, 2003 and associated papers	Face to face interview	Self-completed GHQ – 12 item version	Via data analysis	Case threshold of 3 or more (out of 12)
Other studies of populations				
Coleman et al, 1986; Wolkind, 1985	Ante-natal clinic attenders	Shortened and modified form of PSE, used by trained interviewers	Psychiatrist	Used 'approach of Rutter and colleagues'
Mortimer et al, 1992	From general practice records	Via interview with mothers	Not clear	Research Diagnostic Criteria
Thompson et al, 1996	Questionnaires and data from community health records	Self-completed GHQ - 30 item version	Via data analysis	GHQ score of 4+ described as 'maternal disturbance', score of 7+ used to 'identify mothers at risk of depression'

PSE Present State Examination

GHQ General Health Questionnaire

CIS-R Revised Clinical Interview Schedule

PSQ Psychosis Screening Questionnaire

ICD-10 International Classification of Diseases Version 10

SCAN Schedules for Clinical Assessment in Neuropsychiatry

SCID-II Structured Clinical Interview for DSM-IV Axis II Disorders

DSM-IV Diagnostic and Statistical Manual of Mental Disorders

PSF Psychiatric Symptom Frequency Scale

Table 3.4: Summary prevalence figures for parental mental health problems in general populations

Study	Type of MHP	Prevalence (%) of PMHPs among all women ¹	Prevalence (%) of PMHPs among all men ¹	Prevalence (%) of PMHPs among all adults ¹
Nationally representative sample surveys				
Meltzer et al., 1995	CIS-R grouped score of 12 or more	7% couple and children 3% lone parent	4% couple and children <0.5% lone parent	
Singleton et al, 2001	Neurotic disorder	6% couple and children 3% lone parent	5% couple and children <1% lone parent	
	Probable psychotic disorder	Not reported	Not reported	<0.5% couple and children <0.1% lone parent
Cox et al, 1987	Above GHS cut-off for 'possible psychiatric disorder'	Women 16-49 20% couple and children under 16 4% lone parent and children under 16	Not reported	

1. Calculated by us

Overall prevalence of PMHPs in the population

Three of the eight studies allowed us to calculate the prevalence of PMHPs in the total population and the findings from these are summarised in Table 3.4.

The large, national surveys of psychiatric conditions (Meltzer et al, 1995, Singleton et al, 2001) are the most robust and most recent sources of data on MHPs in the general population. These generated broadly similar figures on the overall prevalence of PMHPs, despite slightly different age groups and geographical coverage, and the seven-year gap between the two surveys. These suggest that, among a British, non-elderly population of women, one might expect around 9 or 10 per cent who are mothers and have a neurotic disorder – around 6 or 7 per cent in couples and 3 per cent lone parents (Table 3.4). Among non-elderly men, the prevalence is lower – around 5 or 6 per cent, with 4 or 5 per cent in a couple and fewer than 1 per cent as lone parents.

We have not been able to recalculate overall prevalence figures for parents with psychoses from the Meltzer survey. The Singleton survey indicates a very low overall prevalence: fewer than 1 per cent of all non-elderly adults seem likely to be parents with a psychotic condition, although the statistical uncertainty around this figure is high, given the very small numbers of people involved.

Prevalence figures for women, based on the Cox et al (1987) work are much higher (20 per cent) for women aged 16-49, with children under 16 and living in a couple, and a

little higher (4 per cent) for those living as a lone parent. These differences are probably explained in part by the younger age group of women analysed, the restriction to those with children under the age of 16, and the use of the GHQ rather than the CIS-R (Table 3.4).

Prevalence of MHPs among parents

There are other ways of looking at the prevalence of PMHPs and we have taken two further approaches with the general population studies, where this is possible. In the first, we ask what proportions of parents (rather than all adults) have MHPs; Table 3.5 presents findings that address this question from the national, representative sample surveys and Table 3.6 from the longitudinal and other population studies. In Table 3.5, figures for all men and/or women with mental health problems in the surveys are given in italics, for comparative purposes.

Where we have reanalysed data from the publications to generate these figures this analysis is reported in Tables A6.1 to A6.4.

First, from the results of the most recent national survey of psychiatric conditions (Singleton et al, 2001) we can see that, in 2000, 18 per cent of mothers who lived in a couple had a 'neurotic disorder' compared to 29 per cent of lone mothers. Among fathers who lived in a couple, around 15 per cent had a 'neurotic disorder' in 2000, compared to around 40 per cent of lone fathers. While there was little change in prevalence of neurotic disorders among mothers between 1993 and 2000, there were apparent substantial increases among fathers, particularly lone fathers. As before, it is impossible to say much about this apparent increase without reanalysis of the original data.

The proportions of parents, whether in couples or lone parents, who have psychoses are very small: smaller than 1 per cent of parents in couples and around 1 per cent of lone parents.

As Table 3.5 shows, for both men and women, the prevalence of MHPs among parents in couples was similar to or lower than that found in all men or women. By contrast, the prevalence of MHPs among lone mothers was higher than that found among all women and the prevalence of MHPs among lone fathers much higher than that found among all men. However, caution is required in interpreting this and other findings about lone fathers because of their small numbers overall. Similarly, making sense of comparisons between parents and all adults with psychoses is problematic, given the very small proportions involved.

The prevalence of possible neurotic disorder in parents (predominantly mothers) of children aged 5 to 15 years (Meltzer et al, 2000) is at a similar level – 25 per cent – although there is no separate analysis in the published report of prevalence in different types of families.

As with the overall prevalence of PMHPs in the population, the Cox et al (1987) study suggests a higher prevalence of MHPs among mothers: 31 per cent among those in couples and 51 per cent among lone mothers. However, as we see here, the prevalence rate for **all** women (aged 18 to 49) in the Cox study was also much higher than that in the Meltzer et al (1995) and Singleton et al (2001) surveys. The pattern was similar, however, with mothers in couples having a similar prevalence rate and lone mothers having a higher rate than all women. These differences between the studies are likely to be due in part to the other differences between them which were outlined earlier (see page 53).

Although the studies based on the 1946 birth cohort had information about MHPs for all adults, the papers we identified (Paykel et al, 2001; Rogers, 1991) confined themselves to reporting data about those with three or more children. As Table 3.6 shows, when they were aged 36, 6 per cent of adults with larger families were defined as having a MHP. At age 43, the prevalence was 7 per cent. The data were not reported directly for men and women, or for those in couples or who were lone parents.

Table 3.5: Prevalence of mental health problems among parents in national, representative, sample surveys

NATIONAL PSYCHIATRIC MORBIDITY SURVEYS			
	Proportion of adults in couples with children¹ who have a MHP	Proportion of lone parents with children¹ who have a MHP	<i>All men and/or women who have specified MHP</i>
Study	% women with any neurotic disorder		
Meltzer et al, 1995	18	28	18
Singleton et al, 2001	18	29	20
	% men with any neurotic disorder		
Meltzer et al, 1995	11	21	11
Singleton et al, 2001	15	40	14
	Rate per thousand of functional psychoses in past 12 months among women		
Meltzer et al, 1995	6	12	4
	Rate per thousand of functional psychoses in past 12 months among men		
Meltzer et al, 1995	2	-	4
	% men and women with probable psychotic disorder		
Singleton et al, 2001	<0.5	0.93	0.70
NATIONAL SURVEY OF OVERALL HEALTH			
Cox et al, 1987	Married/cohabiting and with children under 16 years	Lone parents with children under 16 years	<i>All women 18-49 with score above cut-off</i>
	% women with GHQ scores above cut off point		
	31	51	33
NATIONAL SURVEY OF CHILDREN'S MENTAL HEALTH			
Meltzer et al, 2000	Parents of children aged 5-15		
	% of parents with GHQ scores above cut off point		
	25		

1. 'Child' could be of any age

Table 3.6: Summary prevalence figures for mental health problems among parents in longitudinal and other population studies

Study	Type of MHP	Prevalence (%) of MHPs among mothers	Prevalence (%) of MHPs among fathers	Prevalence (%) of MHPs among all parents
Longitudinal cohort studies				
Paykel et al, 2001	'Caseness' on PSE or PSF	Not reported	Not reported	For those with 3 or more children only 6% at age 36 ¹ 7% at age 43 ¹
Other studies of populations				
Coleman, 1986	'Definite' maternal disorder	18% 14m after birth 16% 27m after birth 23% 42m after birth 19% 82m after birth	n/a	n/a
Mortimer, 1992	'Lifetime history' of depression	Mothers aged 21-45 21.5%	n/a	n/a
Thompson, 1996	'Maternal disturbance'	28%	n/a	n/a

1. Calculated by us

The other population studies suggest higher rates of MHPs among mothers than those found in the large national surveys (see Table 3.6). The Coleman/Wolkind study (Coleman et al, 1986; Wolkind, 1985) tracked MHPs in mothers across the first seven years of children's lives. Their results suggested a peak in the prevalence of 'definite maternal disorder' of 23 per cent when children were three and a half, with an apparent reduction thereafter¹⁵. However, this was a young population (most would have been around 29 years of age at the seven year follow-up), with a high proportion (20 per cent) of lone parents, from a part of London described as 'deprived'. Mortimer et al (1992) similarly studied a relatively young population (ranging from 21 to 45 years of age), although no details are given about marital status. In this case, a prevalence rate of 28 per cent for a 'lifetime history' of depression was reported. Here, of course, we cannot judge whether or not depression was experienced before or after motherhood or both. Finally, Thompson et al (1996) report a 'maternal disturbance' prevalence of 28 per cent but, again, this is in a population of mothers of young children (aged 3 years) which will be younger than the whole population of mothers. We have no information about the marital status of these mothers.

Prevalence of parents among people with MHPs

In the second alternative approach to examining PMHPs, we can ask what proportion of people with MHPs in the general population are parents. Here we can use only three of the large, nationally representative surveys of adults (Meltzer et al, 1995; Singleton et al, 2001; Cox et al, 1987) to throw light on the question. Again, where reanalysis has been carried out to generate these figures this is reported in Tables A6.1 to A6.4.

Table 3.7 summarises information about the proportions of adults with neurotic disorders and with psychotic disorders who are in couples with children or who are lone parents. Figures on all adults who are in couples with children or who are lone parents are also presented, in italics, for comparison purposes.

First, the table suggests that the proportion of women with neurotic disorders who were parents fell between the 1993 and 2000 national surveys of psychiatric disorders – from 40 per cent to 32 per cent for those in couples and from 16 to 13 per cent for those who were lone parents. While the prevalence of parenthood fell for all adult women over the same period, the size of the fall appears to have been larger for women with neurotic disorders. As with overall prevalence, women with neurotic disorders were as likely as all women to be in couples with children, but there was a higher prevalence of lone motherhood. It is not clear, without further analysis of the original data, why there was this apparent fall in prevalence between the two surveys.

Table 3.7 Prevalence of parenthood among adults with mental health problems in national, representative surveys

NATIONAL PSYCHIATRIC MORBIDITY SURVEYS				
	% of adults with any neurotic disorder who are in couples with children	% of all adults who are in couples with children	% of adults with any neurotic disorder who are lone parents	% of all women/men/adults who are lone parents
Study	Women			
Meltzer et al, 1995	40	40	16	10
Singleton et al, 2001	32	35	13	9 ¹
	Men			
Meltzer et al, 1995	40	41	2	1
Singleton et al, 2001	37	34	4	1 ¹
	% of adults with psychotic disorder who are in couples with children	% of all adults who are in couples with children	% of adults with psychotic disorder who are lone parents	% of all adults who are lone parents
	Women and men			
Singleton et al, 2001	17	35	7	5 ¹
	% of women 18-49 with GHQ score above cut off who are in couples with children	% of all women aged 18-49 who are in couples with children	% of women aged 18-49 with GHQ score above cut who are lone parents	% of all women aged 18-49 who are lone parents
NATIONAL SURVEY OF OVERALL HEALTH				
Cox et al, 1987	49	64	10	8

1. These figures are derived from different tables in the Singleton et al (2001) report

The prevalence of parenthood among men with neurotic disorders who are in couples also appears to have fallen between 1993 and 2000 – from 40 per cent to 37 per cent. Here, however, the reduction is smaller than that found among all men. By contrast, the proportion of men with neurotic disorders who are lone parents appears to have increased – from 2 per cent to 4 per cent. This is higher than the prevalence of lone parenthood among all men, both in 1993 and 2000, and represents an increase between the two surveys that was not evident among all men. As we noted above, however, the overall small numbers of lone fathers make it important that we interpret these figures with care.

It is difficult to know what these apparent reductions in prevalence mean without reanalysis of the original data from the two surveys.

The 2000 national survey (Singleton et al, 2001) also allows us to look at the prevalence of parenthood among adults who have psychotic disorders. This shows that being a parent as part of a couple is much less likely among adults with psychotic disorders than in the general population (17 per cent compared to 35 per cent) but that being a lone parent is somewhat more likely (7 per cent compared with 5 per cent). However, the overall number of people with psychotic disorders is small, which means that these figures should be interpreted with great caution.

As in the overall population prevalence figures, the Cox et al (1987) national survey gives much higher prevalence figures than the national surveys of psychiatric disorder. However, the prevalence figures in this study suggest that women aged 18 to 49 years who have MHPs are **less** likely to be mothers living in couples than are all women. By contrast, women with MHPs were somewhat more likely to be lone mothers than all women were. The relatively low cut-off point for MHPs used and, perhaps, the overall lower age of those women who reached the cut-off point may explain this apparent difference in the pattern of parenthood among women in this survey¹⁶.

Findings from studies of sub-populations of people with MHPs

We move on now from the larger studies of representative samples of all adults or total populations to look at studies that used sub-populations of some sort. In this section, we look specifically at the very limited number of studies that confined themselves to sub-populations of people with MHPs and that also identified whether or not these adults were parents. The quality of the data presented here is lower overall, in terms of ascertainment of parenthood and MHPs and in relation to complete coverage of the sub-populations studied. Table 3.8 summarises information on the sample covered, how the sample was identified, and the overall prevalence of parenthood that the data suggest.

Acute psychiatric hospital patients

Four of the studies selected for this part of the review were of adult, in-patient populations. Table 3.8 gives details of the samples studied, how they were identified and reports prevalence. Here we can see wide variations in the reported prevalence of parenthood.

Three studies report data for women with prevalence rates for parenthood ranging from 21 per cent to 62 per cent. The study with the highest prevalence rate (Manderson and McCune, 2004) was confined to women aged 18 to 55, where one might expect a higher rate of parenthood than in a sample where age was not restricted. All three studies were dependent on retrospective case note review, making it likely that

parenthood was under-ascertained, and it is not clear in two of the studies whether the children referred to were dependent and/or still at home.

Only one study reports data for men separately (Coleman and Cassell, 1994) and this found that 12.5 per cent of male patients were recorded as having children aged up to 17 years. The final study (Stormont et al, 1997) reports findings for all adults where 26 per cent were reported to be parents, although the ages of the children and whether or not they were living at home are not specified.

Given the variation in definitions of parenthood, the reliance on case notes, and the often small numbers involved, it is difficult to come to any overall conclusion about the proportions of adults in acute hospital, psychiatric populations who are parents with dependent children. However, it is clear that, even when all ages of patients are considered, the prevalence is not likely to be less than a quarter of all adults, and much higher among younger groups and particularly young women.

Only one study included in this section of the review made any reference to the ethnicity of the parents. Eight of the 19 parents identified in acute psychiatric wards in West Lambeth (Stormont et al, 1987) were defined as 'other' (than 'White').

Community samples of adults with MHPs

We identified three studies of adults with MHPs that reported parenthood, based on community samples – variously defined (see Table 3.8) – and all of which were in large cities (two in London and one in the North-West of England). All three focused on psychotic disorders.

Two studies reported parenthood directly. In one of these (Howard et al, 2001) 63 per cent of adults with psychotic disorders in an area of London were reported to have had children, although it was not clear whether these children were still dependent and/or living at home. In the other study (Webster, 1990) 43 per cent of women with schizophrenia were said to have children who were 18 years or younger.

Table 3.8: Prevalence of parenthood among sub-populations of people with MHPs

Study	Sample	How identified	Prevalence of parenthood among women	Prevalence of parenthood among men	Prevalence of parenthood among adults where sex not specified
Acute hospital patients					
Coleman and Cassell, 1994	Acute psychiatric in-patients	Case note review of admissions to two psychiatric wards in a teaching hospital, over a 4 month period	10/47 (21%) were recorded as having child 0 -17 years	6/48 (12.5%) were recorded as having child 0 -17 years	-
Manderson and McCune, 2004	Acute psychiatric in-patients in two hospitals in Northern Ireland	Retrospective case note audit of 100 randomly selected female patients aged 18-55 and admitted over 6 month period 2000. ICD 10 classification at discharge	62/100 (62%) of women were recorded as mothers of children under 18 years	-	-
Stormont et al, 1997	Acute psychiatric in-patients in West Lambeth	Not clear	-	-	50/193 (26%) of patients (male and female) were parents. Age of children not specified
Tamarit and Yin-Har Lau, 1999	Acute psychiatric in-patients in hospital in Redbridge	Retrospective case note audit of 100 consecutive female admissions July 1994 and January 1995	24/100 (24%) recorded as having children. Under-ascertainment is discussed as possible	-	-

Study	Sample	How identified	Prevalence of parenthood among women	Prevalence of parenthood among men	Prevalence of parenthood among adults where sex not specified
Community samples					
Howard et al, 2001	Representative sample of people with psychotic disorders in South London	Case identification of people with psychotic disorders in south London 1992/3 using standardised procedures and SCAN	155/246 (63%) had had children. Not clear how many still had children at home	Not reported	-
Howard et al, 2002	Women with psychotic disorders in London	Women aged 15-44 registered in the General Practice Research Database on 1/1/1997 and with diagnosis of psychosis between 1996 and 1998	General fertility rate (births in one year x 1,000/number of women 15-44) in women diagnosed as psychotic in: 1996 – 31.5 1997 – 22.3 1998 – 19.0 Rate ratio (compared to matched women not diagnosed as psychotic) in: 1996 – 0.69 1997 – 0.53 1998 – 0.43	n/a	n/a
Webster, 1990	Women with schizophrenia in a north-west England metropolitan borough	Retrospective file review, not clear how files were identified or over what period	49/115 (43%) had children 18 years or younger	-	-

Study	Sample	How identified	Prevalence of parenthood among women	Prevalence of parenthood among men	Prevalence of parenthood among adults where sex not specified
Acute hospital and community samples					
Hatfield et al, 1997	Adults being assessed for compulsory admission under 1993 Mental Health Act	Monitoring forms completed by Approved Social Workers	-	-	551/3554 (15.5%) were living with their children under 18 years
Iddamalgoda and Naish, 1985	People with schizophrenia and/or bipolar affective disorder using inpatient and outpatient psychiatric services in West Lambeth	Case note survey of female acute admissions in six months over 1992/3 and female and male outpatient appointments over 3 week period 1993	40/68 (59%) inpatients 21/35 (58%) outpatients. Not clear whether multiple ascertainment was dealt with	In-patient figures not collected. 14/53 (26%) outpatients. Not clear whether multiple ascertainment was dealt with	-

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The third study (Howard et al, 2002) explored the general fertility rate¹⁷ of women with psychotic disorders and the rate ratio compared to similar women who did not have psychotic disorders. This showed that women with psychotic disorders were substantially less likely than their peers were to have given birth in any of the years studies.

Ethnicity was not reported in any of the studies in this section.

Mixed hospital and community samples

The final studies in this section (Iddamalgoda and Naish, 1995; Hatfield et al, 1997) included adults in both hospital and community settings. The first (Iddamalgoda and Naish, 1995) was based on work that attempted to ascertain all people with schizophrenia or bipolar affective disorder who were using psychiatric services in an area of London. Identifying people with these disorders was done using several approaches, including case note surveys of patients admitted to acute psychiatric hospital and of those attending outpatient services. It is not clear from the report of this study whether or not multiple ascertainment of the same person was possible and, if so, how the analysis of the data dealt with this. For example, the same person might have been a hospital patient **and** used outpatient services during the period of the study. As Table 3.8 shows, the prevalence of motherhood reported in this study was high (almost 60 per cent) in both in-patient and outpatient settings. The prevalence of fatherhood, which was reported only for outpatient settings, was lower – 26 per cent – but still substantial. Ethnicity was not reported in this study.

The second study was based on analysis of monitoring forms completed by Approved Social Workers when they were assessing people with a view to compulsory admission under the 1983 Mental Health Act. Nine local authorities in the Metropolitan Boroughs of Manchester adopted a monitoring system for all assessments carried out, and started routinely collecting information about parental status from 1992. Data from seven of the nine local authorities was used to explore parental status in the study of Hatfield et al (1997) for the three years 1992-4. At the time they were assessed, adults might already be in hospital (as informal or 'Section 5' patients) or be at home or in some other community setting. As Table 3.8 shows, 15.5 per cent of assessments for compulsory detention involved adults living in households with their dependent children. It is not clear from the paper whether or not parental status was actually recorded in all 3,554 assessments that form the basis of the analysis; other discussion in the text suggests that it may not have been. Further, it is not clear how, if at all, multiple assessments of the same adult have been dealt with in the analysis. In this case, then, 15.5 per cent could be an over- **or under**- estimate of the prevalence of parenthood in this sub-population.

Reporting of ethnicity in this study is difficult to interpret in relation to parenthood.

Findings from studies of other sub-populations

In this section, we look at available evidence about the prevalence of parental mental health problems among particular sub-groups. We found papers that reported data about both parenthood and MHPs in homeless families (two studies), in black and minority ethnic communities (five studies), and other sub-populations of families (three studies). The details of the samples sought and how they were identified are summarised in Table 3.9.

Homeless families

Two studies of homeless families (Cumella et al, 1998; Tischler et al, 2004) looked at MHPs in parents entering homelessness hostels in Birmingham and in Leicester. In the first study, parenthood was defined as people who had children aged 2 to 16 years of age with them in the hostel. In the second study, the focus was on families referred to the family support worker in the hostel; it is not clear whether this was all families or a selected group.

The first study used a GHQ score definition of a 'clinical threshold' for MHPs (not otherwise defined) and the second used cut-off points for 'likely' anxiety and for 'likely' depression, using the Hospital Anxiety and Depression Scale. Data were not reported separately for men and women, although in both studies the majority of parents in the hostels were women. Both studies show high levels of MHPs in this population of parents – almost 50 per cent in one, and over 66 per cent in the other. The higher prevalence of MHPs in the second study could be an artefact of the measure used (which is designed for use in hospital out-patient rather than community settings) or the fact that the study focused on families referred to the family support worker, who might have been seen as in greater need of help.

Cumella et al (1998) reported that 76 per cent of the mothers in their study were 'white', 13 per cent South Asian, and 11 per cent 'Afro-Caribbean' or 'African'. The other study did not report ethnicity.

Black and minority ethnic communities

Five studies were identified that reported both MHPs and parenthood for people from black and minority ethnic communities. Two of these (Nazroo, 1997; Sproston et al, 2002) were based on large, national, sample surveys of private households in all (majority and minority) communities. Another was based on a sample of Greek Cypriot adults in an area of London (Mavreas and Bebbington, 1987); one on 'Muslim'¹⁸ families in London (Sonuga-Barke et al, 1998); and one on Asian 'Hindu' and 'Muslim' families in a similar area of London (Sonuga-Barke and Mistry, 2000). The latter two studies may include at least a few of the same families, given that they both used sampling strategies that involved contacting families via their primary school aged children.

Table 3.9: Prevalence of mental health problems among parents in other sub-populations

Study	Sample	How identified	Prevalence of MHPs
Homeless families			
Cumella et al, 1998	Parents in homeless families in Birmingham	Consecutive entries of families with children aged 2-16 years to homelessness hostels May 1995 to January 1996	49% of parents (almost all of whom were women) said to have GHQ-28 score on or above 'clinical threshold'
Tischler et al, 2004	Families receiving family support worker services in homelessness hostel in Leicester	Consecutive referrals to family support worker April 2001 to April 2002	74% of 'main carers' above HADS cut-off (of 7) for 'likely' anxiety 67% of 'main carers' above HADS cut-off (of 7) for 'likely' depression
Black and minority ethnic communities			
Mavreas and Bebbington, 1987	Greek Cypriot adults 18-65 in Camberwell	Random sample of names identified from electoral roll as apparently Greek	10% of men with children under 15 years living at home had ID scores (using PSE) of 5 or above 17% of women with children under 15 years living at home had ID scores (using PSE) of 5 or above
Nazroo, 1997	Adults in minority and majority ethnic communities, but only results for parents reported were for female lone parents with children under 11	From national, cross-sectional sample survey, 1993/4, Fourth National Policy Studies Institute Study	18% with anxiety ¹ in Caribbean group 28% with anxiety ¹ in South Asian group 39% with anxiety ¹ in White group
			Estimated weekly prevalence ² of 'neurotic depression' 7% Caribbean group 14% South Asian group 11% White group
			Estimated annual prevalence ³ of 'non-affective psychosis' 2.0% Caribbean group 1.2% South Asian group 1.4% White group

Study	Sample	How identified	Prevalence of MHPs
Sonuga-Barke et al, 1998	Mothers in Muslim families in North and East London, with three generations co-habiting and at least one child aged 5-10	Via community centre and via children in two local primary schools. Not clear how identified	26% of mothers said to meet HADS clinical cut-off (not defined) for anxiety 13% of mothers said to meet HADS clinical cut-off (not defined) for depression
Sonuga-Barke and Mistry, 2000	Mothers and grandmothers of Asian Hindu and Muslim children aged 6-11 in four primary schools in Newham	Via school records	46% of mothers scored above HADS cut-off (not defined) for possible clinical levels of anxiety 29% of mothers scored above HADS cut-off (not defined) for depression
Sproston and Nazroo, 2002	Households containing adult 16-74 and children (not defined), from majority and black and minority ethnic communities	From people in cross-sectional, national, sample survey that over-sampled from black and minority ethnic communities who agreed to be interviewed again, 1999 Health Survey for England	Men with CIS-R score of 12 or more 10% Black Caribbean 12% Bangladeshi 11% Indian 10% Pakistani 7% White 19% Irish Women with CIS-R score of 12 or more 21% Black Caribbean 12% Bangladeshi 17% Indian 29% Pakistani 25% White 19% Irish
Other sub-populations			
Dowdney et al, 1999	Parents in families where the other parent has died, in two adjacent health authorities	Via death certificates and GP records. Families of deceased adults aged 18-55, where parent had died 3-12m previously and children under 19 years lived with both parents when death occurred	21/31 (78%) of mothers scored 5 or more on GHQ 4/13 (31%) of fathers scored 5 or more on GHQ

Study	Sample	How identified	Prevalence of MHPs
Kim-Cohen et al, 2005	Mothers of same-sex twins. Followed up when twins 5 and 7 years old	From birth register and probability sampling	33% weighted lifetime prevalence of maternal MDD at five years 10% weighted 12m prevalence of maternal MDD at seven years
Verduyn et al, 2003	Mothers of children aged 2yr 6m and 4yr in Manchester who reported child behaviour difficulties	Mothers identified from community health records then self-completed BDI and subsequent SCID and HRSD	8% with BDI scores above the threshold 4% diagnosed as with MDD or dysthymic disorder

1. Defined as responses to CSI-R which reported feeling anxious *plus* either two or more autonomic symptoms *or* panic attacks
2. Estimated for population as a whole on basis of CIS-R scores and using formula to estimate equivalent PSE categories. Converted by us to percentage from rate per thousand
3. Estimated for population on basis of PSQ scores and using formula to estimate equivalent PSE categories. Converted by us to percentage from rate per thousand

BDI Beck Depression Inventory

CIS-R Revised Clinical Interview Schedule

GHQ General Health Questionnaire

HADS Hospital Anxiety and Depression Scale

HRSD Hamilton Rating Scale for Depression

ID Index of Definition – score of 5 or above indicates probable ‘caseness’.

MDD Major depressive disorder

PSE Present State Examination

PSQ Psychosis Screening Questionnaire

SCID Structured Clinical Interview for DSM-IV Disorders

The two large, national studies were based, respectively, on the Policy Studies Institute Fourth National Survey of Ethnic Minorities, carried out in 1993/4, and the Health Survey for England, carried out in 1999. In both cases, an additional stage was added to the main studies in order to follow up people who had screened positively for possible mental health problems, in order to assess the validity and reliability of the screening measures used in the first stage¹⁹.

The results that are useful for our review are based on two of the screening measures used in both studies – the Revised Clinical Interview Schedule (CSI-R) and the Psychosis Screening Questionnaire (PSQ).

The report from the Fourth National Survey of Ethnic Minorities (Nazroo, 1997) reports both mental health status and parenthood **only for lone mothers of children under 11**. For this sub-group, the estimated weekly prevalence of anxiety, as defined by a score above the CSI-R cut off point was 18 per cent for those defined as Caribbean and 28 per cent for those defined as South Asian (Table 3.10). This compared with 39 per cent for White lone mothers with young children. The respective estimated weekly prevalence rates for depression were 7 per cent and 14 per cent, compared with 11 per cent for White lone mothers. Finally, an annual prevalence rate for 'non-affective psychosis' was also estimated. The figures for this were 2 per cent for Caribbean lone mothers with children under 11, 1.2 per cent for South Asian and 1.4 per cent for White lone mothers.

Reporting from the second national study (Sproston et al, 2002) is better in terms of understanding the prevalence of PMHPs, but not perfect. Data were reported for adults aged 16-74 living in households containing children (who were not defined) who scored 'about' the CSI-R cut-off point of 12. It is, of course, possible that the adults were not the parents of the children and/or that the children were not dependent. The figures may thus overestimate parenthood among people with MHPS in the respective communities. Further, different patterns of household formation in different communities may make comparisons between them problematic. For example, if South Asian households are more likely to contain three generations, they are also more likely to contain adults living with children who are not theirs and who may themselves be adults. The communities also differ in their age profiles and, thereby, the overall likelihood of adults' living in households that contain (young) children.

Bearing these facts in mind, we can see from Table 3.9 that the highest estimated prevalence of MHPs among men who lived in households with children was in the Irish group (19 per cent), followed by Bangladeshi (12 per cent), Indian (11 per cent), Pakistani (10 per cent) and Black Caribbean men (10 per cent). The lowest prevalence was among White men (7 per cent).

Among women, the patterns were different, with the highest prevalence in minority groups among Pakistani and Black Caribbean women (29 per cent and 21 per cent respectively) followed by Irish (19 per cent), Indian (17 per cent), and Bangladeshi (12 per cent) women. However, prevalence among White women was high too, at 25 per cent.

In the smaller studies of MHPs in black and minority ethnic communities, two were of South Asian households and one of Greek Cypriot households.

One of the studies in South Asian families looked only at three-generation households which were Muslim (Sonuga-Barke et al, 1998), while the other looked at any type of household in both Hindu and Muslim families (Sonuga-Barke and Mistry, 2000). The first suggested that a quarter of mothers of children aged 5 to 10 years met the clinical cut-off for anxiety while 13 per cent met the cut-off for depression. In the second study, the parallel figures for both the communities combined were 46 per cent and 29 per cent. However, in neither case was the cut-off point for anxiety or depression defined.

Among Greek Cypriot adults between the aged of 18 and 65 in an area of London, 10 per cent of men with children under the age of 15 who were living with them had scores above the chosen cut-off point for MHPs on the Present State Examination. For women in the same situation the prevalence was 17 per cent.

Other sub-populations

The final three studies that reported both parental status and mental health were of different types of sub-populations that could be considered as at 'high risk' for PMHPs. One was a post-hoc study of families with children where one parent had recently died (Dowdney et al, 1999), the second was of mothers who had given birth to same-sex twins in 1994 or 1995 (Kim-Cohen et al, 2005), and the third was of a population of mothers who reported that their young children had behaviour problems (Verduyn et al, 2003).

As Table 3.8 shows, widely varying prevalence figures were reported. Among mothers whose partners had died in the past 12 months, 78 per cent had GHQ scores of five or more (presumably on the GHQ-30, although this is not stated in the paper). For bereaved fathers the equivalent figure was 31 per cent. However, this paper was based on very small numbers of respondents.

The study of young mothers who had given birth to twins calculated lifetime prevalence figures for major depressive disorder when the twins were five, and 12 month prevalence when the twins were seven years of age. There was a high lifetime prevalence rate (33 per cent) when the twins were five, but not all of this had been experienced since the birth of the twins; 6 per cent in total had experienced depression only before the births. Perhaps more useful for this review's purposes is the 12 month prevalence rate when the twins were seven, when the average age of the mothers was around 35. Here we find that 10 per cent of mothers had had an episode of major depression in the 12 months before interview, identified using the Diagnostic Interview Schedule and DSM-IV definitions.

The Verduyn et al (2003) study was based on a population of mothers of children aged 30 months to 4 years. The mothers completed a screening instrument both for their own depression and for any behaviour problems in their children. Mothers who screened

positively on **both** criteria were then interviewed using a standard clinical interview instrument and a rating scale for depression (see Table 3.8). The results of the study are reported only for mothers reporting both depression and child behavioural problems, with a reported prevalence of maternal depression of 8 per cent at the screening stage and 4 per cent with a major depressive disorder or dysthymic disorder after clinical interview.

Explaining variation

Reporting simple prevalence figures is helpful for understanding what proportion of a population might have parental responsibilities whilst also experiencing MHPs. However, as we have seen throughout, what we cannot understand from these simple figures is whether or not the patterns of PMHPs observed are as we would expect, given, say, the sex or age or ethnicity of the groups studied. For example, as implied earlier, it is difficult to make a straight comparison of rates of PMHPs in different communities because those communities have different age profiles, different household forms and so on.

A possible solution to this sort of problem is to carry out multivariate analysis. This approach can take into account a range of variables that we would expect to influence the prevalence of MHPs, and then explore if parenthood, of itself, increases or decreases the likelihood of experiencing MHPs. Data from three of the large, national surveys that we have used to generate simple prevalence figures (the Health and Lifestyle Survey, the 1993 OPCS survey of psychiatric morbidity and the British Household Panel Survey) have been used for this sort of analysis. Findings have been reported in six publications (see Table 3.10), and it is to these that we turn in the last section of this systematic review of evidence on the prevalence of PMHPs.

One paper (Macran et al, 1996) used data from the 1984/5 Health and Lifestyle Survey (HALS) to explore the relationship between women's psychological well-being and a variety of social and economic factors, including parenthood. This survey used a measure of well-being said to be 'comparable' to the GHQ, rather than the GHQ score itself, which was available from the survey but which was apparently completed for only three-quarters of the HALS sample.

Rather than using a cut-off point, above which people were considered to have a MHP, the researchers used the measure as a continuous variable in their analysis. A negative score on the co-efficient reported in Table 3.10 means that the group in question had a lower score (better health) than the comparison group, and vice versa. Here we see, then, that compared to women in couples with no children, mothers in couples with dependent children were in significantly better psychosocial health and lone mothers with dependent children were in significantly poorer psychosocial health. This was after taking into account socio-economic status, employment, household income, age, and household circumstances, including the presence of children.

A similar pattern emerges from multi-variate analysis of the 1993 OPCS survey of psychiatric morbidity (Meltzer et al, 1995; Jenkins et al, 1997; Meltzer et al, 2002). Here we can see that, after controlling for other social and economic factors related to MHPs (see Table 3.9), lone parents with children were significantly more likely than the comparison category of adults in couples with no children to have experienced a depressive episode or a mixed anxiety and depressive disorder. Similarly, overall, they were more likely to have any form of neurotic disorder, and to have a degree of mental disorder that they considered hampered their ability to get on with their everyday lives. By contrast, in all instances, adults in couples with children were no more likely than the comparison category to experience a MHP.

It is worth remembering that if a major variable was excluded from the multivariate analysis, then earlier analysis had shown that it did not contribute independently to the prevalence of the MHP in question. Therefore, while sex was included in models for mixed anxiety and depressive disorder and for all 'neurotic' conditions, including those experienced as disabling, it was not included in the model that explored depression alone (Meltzer et al, 1995).

Subsequent analysis of the 1993 OPCS psychiatric morbidity survey data, confined to women alone (Targosz et al, 2003) pursued the role of sex and depression further. As the authors point out, depressive episode, as defined in the OPCS survey, 'is a serious psychiatric condition', while mixed anxiety and depression 'is a milder condition' (Targosz et al, 2003: 718). Straight prevalence figures, as we saw in earlier sections of this chapter, show that lone mothers have 'particularly high rates of these disorders' (ibid).

However, lone mothers are significantly different from other mothers and all other women in terms of their social class, ethnicity, employment status, tenure and other socio-economic factors. As Table 3.10 shows, when many of these factors (social class, ethnic group, employment status, tenure, car availability, recent life events, perceived social support) are taken into account, while the odds of having a depressive episode is still higher for lone mothers (relative to women without children) than for other mothers, the difference is much smaller, and is no longer significantly different from the comparison category. With mixed anxiety and depression the odds ratio for lone parents is somewhat **smaller** than that for other mothers, compared to women who are not mothers.

The authors conclude that 'the excess of depressive conditions in lone mothers is very largely associated with the range and levels of disadvantage they experience' (op cit: 719). Lack of social support, not being in full-time employment, life events and lack of access to a car were also important in the model that explored depression. Age, ethnicity and social class 'were notably not required in either model' (ibid).

The reanalysis of the British Household Panel Survey, carried out by Weich et al (2003) adds further to the overwhelming impression that the link between parenthood and MHPs is, for many, associated with the socio-economic circumstances in which they find themselves. Here, BHPS data were used to explore the prevalence of GHQ-12

scores of three and over and their links to 'household level exposures' to risk factors for MHPs. As Table 3.10 shows, once these household level exposures had been taken into account, parenthood – whether as a lone parent or in partnership – was not significantly associated with a score above the cut-off point on the GHQ.

Discussion and conclusions

For reasons discussed both in Chapter 1 and at the beginning of this chapter, drawing the results of the studies reviewed here together in any meaningful way is difficult. In this final section, however, we do try to summarise what we now know about the prevalence of parental mental health problems in Great Britain.

First, on the evidence of the high-quality, large, national surveys of psychiatric conditions, it is probable that, in a population of non-elderly adults, at any given time, around 9 to 10 per cent of women and 5 to 6 per cent of men in Great Britain will be PMHPs. Within this, the large majority will have neurotic disorders of some sort (depression, anxiety or mixed anxiety and depression) and a very small proportion (0.5 per cent or fewer) any kind of psychotic disorder. Given the episodic nature of MHPs, however, it is likely that a higher proportion of people will, in their lifetime, experience being a parent whilst also having a MHP. Given that these surveys were of adults, they will also have missed any young people under the age of 16 who are PMHPs.

These national surveys show that there is a higher proportion of women who are PMHPs, but also a higher level of MHPs among mothers than among fathers – perhaps a quarter and less than a fifth respectively. However, these overall figures disguise substantial differences in the experiences of lone parents and those who are in couples. Both female and male lone parents are more likely to have MHPs than are female and male parents who live in couples. There is also a suggestion that the younger the mother, the higher the prevalence of MHPs.

In a population of children aged 5 to 15 years perhaps 25 per cent will have parents (predominantly mothers) with a possible neurotic disorder. Parenthood among populations of people with neurotic disorders is common. The proportion who are living in couples with children is largely similar to that in the population as a whole (around a third or just above in 2000). However, the proportions that are lone parents are higher than in the population as a whole, both for women and for men. By contrast, adults with psychotic disorders are half as likely as the population as a whole to be in couples with children and somewhat less likely to be lone parents. However, it is still the case that, in 2000, 17 per cent of adults with psychotic conditions were in couples with children and 7 per cent were lone parents.

The evidence from the smaller studies of people with MHPs shows, as one might expect from the large, national surveys, that a high proportion of adults in acute psychiatric hospital settings may be parents – at least 25 per cent and probably substantially more, especially among young women. However, the studies of users of both acute and community mental health services were generally of poor quality or dependent on

retrospective review of records which, in turn, was dependent on professionals thinking to ask about and record parental status. This suggests a gap both in the research literature and in professional practice.

When we come to sub-groups of the population, interpretation of findings is difficult. Lone mothers from minority communities who have young children may be less likely to have anxiety-related problems than White mothers do, while some may be somewhat more likely to be depressed. Among parents as a whole, patterns are difficult to discern and interpret. Here we see completely different patterns for men and women, possibly explained by the relative presence of lone mothers in the different communities. Overall, it is difficult to come to any robust conclusion about the prevalence of PMHPs among different minority communities.

As is clear from this discussion, lone parenthood, particularly among women, seems to be a clear risk factor for MHPs, and especially among those at the less clinically severe end of the spectrum. However, the multivariate analysis that we have reviewed, suggests that this excess of MHPs among lone mothers is closely associated with their relative disadvantage, compared to other adults. Once these disadvantages are 'washed out' of the analysis, parenthood, of whatever sort, does not seem to be associated independently with MHPs. In other words, parents experience MHPs to the same extent as other people in similar socio-economic circumstances.

Of course, this sort of analysis tells us nothing about the direction of the relationship between parenthood, MHPs and socio-economic disadvantage. Many of the factors explored in the multivariate analysis are clearly inter-related and their links to MHPs could be in either direction. In other words, people may experience some types of MHPs because they find themselves in poor socio-economic circumstances or they may find themselves in poor socio-economic circumstances because they have MHPs. However, the fact that, overall, lone mothers experience higher levels of MHPs than mothers in couples, alerts us to the need to explore the ways in which any predisposition to MHPs interacts with the environment within which people find themselves, including being a parent.

Chapter 4 Results from studies of detection, reporting and self-reporting of parental mental health problems

Introduction

In this chapter, we synthesise the findings from studies that addressed how parental mental health problems are detected or reported, including self-report by parents or children. For the sake of brevity, we refer here to these studies as being about 'identification'.

The studies included varied in their focus, and we have created four categories that structure the analysis that follows. First, there were studies that asked professionals their opinions about if and how they identified PMHPs. Secondly, there were studies that explored how accurate professionals actually were in identifying and/or recording the presence of PMHPs. Thirdly, some studies were specifically about introducing screening for identifying PMHPs in a service setting. Finally, there were studies that explored how parents and children felt about the prospect or actuality of being identified as having a mental health problem.

As reported in Chapter 2, the studies were diverse in their methods and design because, unlike the reviews of outcomes or of prevalence, many different types of structured enquiry can be used to explore these issues.

Twenty-three studies, reported in 24 publications, were included in this section of the review.

Type of studies included

Table 4.1 summarises the main aims of the research (in relation to identification) reported in the 23 studies, the main characteristics of the design or methods, which and how many people were being researched, and the country in which the research was carried out. Table 4.2 presents more information about who was identified, why, by whom, where and how.

Studies of professionals

The eight studies in this category were of professionals who might encounter PMHPs and their children in the course of their work and focused on their experiences in general rather than observation or assessment of their actual practice. Overall, the question being asked was if and how the professionals came into contact with PMHPs, how they recognised them when they did, and what service and organisational barriers they encountered in doing so.

Table 4.1: Studies of detection, reporting and self-reporting of parental mental health problems

First author and date	Main aim of research in relation to identification of PMHPs	Study design or methods	Who was researched	Achieved sample size	Country
Studies of professionals					
Bibou-Nakou, 2003; 2004	To establish if and how children living with PMHPs are identified in schools	Focus groups and semi-structured interviews	Teachers	120	Greece
Biebel, 2004	To establish how responsive state mental health authorities are to PMHP issues and why	Survey and telephone interviews	Directors of state mental health authorities	51 for survey 25 for interviews	USA
Nicholson, 1993	To establish if state mental health authorities have policies and programmes for mothers with MHPs	Survey	Directors of state mental health authorities	51	USA
Olson, 2002	To explore the attitudes and approaches of primary care paediatricians to identifying and managing maternal depression	Random sample survey	Primary care paediatricians	888 ¹	USA
Mayberry, 2006	To identify and explore barriers that impede adult mental health workers and other clinicians from working with patients about parenting issues	Not entirely clear – qualitative development stage and questionnaire stage	Not entirely clear – mental health workers and ‘other’ welfare workers	Not clear	Australia
Gillam, 2003	To explore awareness of parental roles among those working in adult mental health services and CAMHS	Qualitative and questionnaire	Family therapy workers and children’s workers	28 family therapy workers and 27 children’s workers	UK

First author and date	Main aim of research in relation to identification of PMHPs	Study design or methods	Who was researched	Achieved sample size	Country
McCue Horwitz, 2007	To explore paediatricians' perceived barriers to working with maternal depression	Sample survey	Paediatricians	832	USA
Heneghan, 2006	To explore paediatricians' beliefs about discussing maternal depression	In-depth, telephone interviews	Primary care paediatricians	23	USA
Studies of detection/identification systems					
Feinberg, 2006	To explore acceptability to mothers and providers of implementing a depression detection and management system	Focus groups and key informant interviews	Mothers in 'inter-natal' period, health care providers and community-based professionals who provide services to mothers of young children	79 in focus groups and 36 key informants	USA
Olson, 2006	To determine feasibility and yield of maternal depression screening during well-child visits	Descriptive implementation study	Paediatricians and nurse practitioners	14 paediatricians, 5 nurse practitioners	USA
Flynn, 2004	To test feasibility of using a short screening questionnaire to detect maternal depression in paediatric emergency department	Questionnaire survey including screening instruments	Women attending emergency department with child ≤ 7 years	Around 191	USA
Kemper, 1994	To explore effects of screening for maternal depression only in 'high risk' populations	Inclusion of screening instrument in normal well-child clinic records	Parents of children under 6 being seen at well-child clinics, but only data for mothers reported	1,404	USA
Detection studies					
Sheppard, 1997	Explore extent to which social work intervention varies according to presence or absence of maternal depression	Use of depression measures in wider study of social work practice with mothers receiving child and family services	Mothers in care managed families and their social workers	116	UK

First author and date	Main aim of research in relation to identification of PMHPs	Study design or methods	Who was researched	Achieved sample size	Country
Vanharen, 1993	To establish whether children of PMHPs are identified by clinicians working with their parents	Structured interviews	In- and out-patients of mental health services	100	Canada
Needlman, 1999	To establish rate of identification of depressive symptoms among mothers seen by social workers in paediatric clinic	Prospective, uncontrolled intervention study	Mothers 18+ (and including grandmothers and other carers) referred to paediatric social workers for psychosocial assessment and intervention	73 at stage 1, 60 at follow-up	USA
Gross, 1989	To identify what information about parenting issues are recorded for female, adult psychiatric in-patients	Chart (record) review	Women admitted to acute psychiatric hospitals, aged 18-45 and with children under 6 years	21	USA
Iddamalgoda, 1995	To identify mental health service users who are parents	Case note survey for in- and out-patient, postal survey of community-based workers, semi-structured interviews	Parents with psychotic conditions	Not relevant	UK
Hatfield, 1997	To establish parental status of people being assessed for compulsory detention under 1983 Mental Health Act	Analysis of monitoring forms completed by Approved Social Workers	People being assessed for compulsory detention	3,554 records of assessments	UK
Qualitative studies – views about identification					
Gilbert, 2002	Explore which children of PMHPs use community mental health project	Audit of data on child referrals to project. Focus groups with children of PMHPs – one for adults one for children	Child users of project and adults known to project workers who had, as children, experienced PMHPs	14	UK

First author and date	Main aim of research in relation to identification of PMHPs	Study design or methods	Who was researched	Achieved sample size	Country
Fudge, 2004	To consult with children and young people about support for children of PMHPs	Focus groups and peer interviews	Children of PMHPs aged 7-12 years and 13-20 years.	58	Australia
Anderson, 2006	Examine health needs and life circumstances of mothers bringing their children for mental health care	Qualitative sub-study	Mothers of children with mental health problems who themselves screened positive for significant mood and anxiety disorder	127	USA
Heneghan, 2004	To explore maternal beliefs and perceptions about discussing parenting stress and depressive symptoms with paediatricians	Focus groups	Mothers bringing children for routine paediatric care in community and hospital-based practices	44	USA
Slattery, nd	To explore experience and support needs of mothers with severe and enduring MHPs	Focus groups and postal survey	Women who use community mental health services and who have dependent children	18 for focus group, 44 for questionnaire	UK

1. For questionnaire related specifically to all types of maternal depression

Table 4.2: Target and purpose of identification

First author and date	Who was being identified	Why?	Who was doing identification?	Where	Method used
Studies of professionals					
Bibou-Nakou 2003; 2004	Children with PMHPs	As part of routine practice	Teachers	In school	n/a
Biebel, 2004	PMHPs	As part of routine practice	Mental health services	In service settings	n/a
Nicholson, 1993	Mothers using public sector psychiatric services who have children of pre-school age	As part of routine practice	Various	Various but usually at service intake or hospitalisation or on patient 'application forms'	Various
Olson, 2002	Mothers with depression	As part of routine practice	Primary care paediatricians	In practice settings	Various behavioural cues reported as signals of depression
Mayberry, 2006	Parents with mental health problems	n/a	Mental health and other 'welfare' workers	Various, including both in- and out-patient settings	n/a
Gillam, 2003	Parents with mental health problems	As part of routine practice	Family therapy trainers and professionals working with children	Various	Various
McCue Horwitz, 2007	Mothers with depression	As part of routine practice	Paediatricians	Not clear, but presumably as part of both community-based and hospital-based practice	n/a
Heneghan 2006,	Mothers with clinical depression	As part of routine practice	Paediatricians	In hospital- and community-based primary care practice	n/a

First author and date	Who was being identified	Why?	Who was doing identification?	Where	Method used
Studies of detection/identification systems					
Feinberg, 2006	Mothers in paediatric settings who were depressed	As part of feasibility study to implement as part of routine practice	By paediatricians using screening instrument as part of electronic records or by mothers' self-completion	At well-child visits in paediatric primary care	Patient Health Questionnaire-2, followed up in feasibility study for mothers with a high score, by PHQ-9 and other questions
Olson, 2006	Mothers with MHPs	As part of feasibility study with intention to implement as part of routine practice	Paediatricians and paediatric nurses	In well-child consultations in primary care practices	Patient Health Questionnaire-2. Paper-based, self-completion format
Flynn, 2004	Mothers with depression	As part of study testing feasibility of using RAND 3-item screening instrument	For research purposes only at this stage	In paediatric emergency departments	CES-D and RAND 3-item screening instrument
Kemper, 1994	Mothers with depression	As part of prevalence research	In one setting as part of routine care by paediatric 'clinicians', in others for research purposes	In paediatric clinics in different settings	RAND 8-item screening instrument
Detection studies					
Sheppard, 1997	Mothers with MHPs	As part of research project	Social workers and care managers working with the mothers. Screening instrument not used in routine practice	As part of research project	Depression Social Assessment Schedule
Vanharen, 1993	Adults with MHPs who were parents	As part of research project, but compared with information recorded on case notes	For research purposes only	In out-patient and in-patient psychiatric care settings	Research interview, compared against case notes

First author and date	Who was being identified	Why?	Who was doing identification?	Where	Method used
Needlman, 1999	Mothers with MHPs	As part of exploratory study to see if systematic screening leads to intervention	Social workers	In paediatric primary care clinic after referral to social worker	Clinical interview and observation of mothers' behaviour by social worker. CES-D self-completion
Gross, 1989	Mothers with MHPs	As part of routine practice	Range of hospital-based professionals – nurses, social workers, psychiatrists, OTs, psychologists	In hospital	Normal record keeping
Iddamalgoda, 1995	Parents with psychotic conditions	As part of routine practice	Range of hospital- and community-based professionals and other community-based professionals who might come into contact with PMHPs and their children	In hospital (in-patient and out-patient) and community settings	Normal record keeping
Hatfield, 1997	Parents being assessed for compulsory admission	As part of routine monitoring of assessments	Approved Social Workers	In in-patient and community settings	Completion of monitoring form when adult was assessed
Qualitative studies – views about identification					
Gilbert, 2002	Children with PMHPs	n/a	n/a	n/a	n/a
Fudge, 2004	Children with PMHPs	n/a	n/a	n/a	n/a
Anderson, 2006	Mothers with MHPs whose children were receiving mental health services	As part of research project but referred on for MH services if screened positive	For research purposes only	Community mental health centres where children were receiving services	Patient Health Questionnaire and Beck Depression and Anxiety Inventories

First author and date	Who was being identified	Why?	Who was doing identification?	Where	Method used
Heneghan, 2004	Potentially, mothers with stress or depressive symptoms	As part of routine practice	Potentially, paediatricians	During normal paediatric visits	n/a
Slattery, nd	Mothers with severe and enduring MHPs	As part of routine practice	Various	In community mental health services	Normal record keeping

Three of the studies involved paediatricians in the USA (Olson et al, 2002; McCue Horwitz et al, 2007; Heneghan et al, 2006); two mental health workers of different types, in Australia and the UK respectively (Maybery and Reupert, 2006; Gillam et al, 2003); one involved teachers in Greece (Bibou-Nakou, 2003; 2004); and two those who directed state mental health authorities in the USA (Nicholson et al, 2003; Biebel et al, 2004). These latter two studies adopted essentially the same techniques and approach but with a 10 year gap between them, thus allowing consideration of change over time. As Table 4.1 indicates, the studies varied considerably in their methods, design and sample sizes (ranging from 19 to 888).

Four of the studies were specifically about mothers (usually with depressive symptoms), three about parents more generally and one about the children of PMHPs.

In all cases, these studies were about identification of PMHPs in service settings or, in one case, of children with PMHPs in school. No specific screening or identification methods were explored in these studies.

Detection studies

We defined the six studies in this section as 'detection studies' because they examined the **actual** practice of professionals in identifying PMHPs or their children in service settings.

In all cases, the service settings were specialist – child and family social services (Sheppard, 1997; Needlman et al, 1999) and mental health services (Vanharen et al, 1993; Gross and Semprevivo, 1989; Iddamalgoda and Naish, 1995; Hatfield et al, 1997) – where one might expect the intersection of mental health problems and parental status to be a key concern.

Three of the studies were in the UK (Sheppard, 1997; Iddamalgoda and Naish, 1995; Hatfield et al, 1997), two in the USA (Needlman et al, 1999; Gross and Semprevivo, 1989) and one in Canada (Vanharen et al, 1993). Overall, they were smaller and closer in sample size (ranging from 21 to 116) than the studies in the previous and following categories. In two cases, the studies included review of health care records (Gross and Semprevivo, 1989; Iddamalgoda and Naish, 1995).

Four of the studies included here throw light onto how often PMHPs or their children were identified and recorded as part of routine practice (Gross and Semprevivo, 1989; Vanharen et al, 1993; Iddamalgoda and Naish, 1995; Hatfield et al, 1997). The other two compared workers' assessment of parents' mental health status against formal measures of the same (Sheppard, 1997; Needlman et al, 1999).

Studies of identification systems

There were four studies in this category, all were in the USA and explored the feasibility and effects of implementing screening for depression in service settings. All focused on detecting maternal depression in health care settings, in one case in the emergency department of an acute hospital (Flynn et al, 2004) and in three cases in primary care settings (Feinberg et al, 2006; Olson et al, 2006; Kemper et al, 1994). In Olson et al (2006) only the professionals involved in implementing the screening were part of the study; in the other studies the mothers were the prime research participants although Feinberg et al (2006) also researched the views and experiences of health care professionals. As before, the design, methods and sample sizes (ranging from 19 to 1,404) varied substantially across studies.

Two of the studies (Feinberg et al, 2006; Olson et al, 2006) explored the feasibility of using the two-item version of the Patient Health Questionnaire (PHQ-2) in routine paediatric practice (as part of well-child visits) to screen mothers for depressive symptoms. The other two studies (Flynn et al, 2004; Kemper et al, 1994) were part of prevalence studies but also tested the feasibility of using versions of the RAND screening instrument to identify depressive symptoms in mothers bringing their children to paediatric care of some sort.

Views about being identified

This final category includes five studies that reported the views of children or adults about identification of PMHPs. In only one case (Heneghan et al, 2004) were these views the prime focus of the study; in the others these issues came up spontaneously or were explored as part of a wider study about the need for or use of support by PMHPs or their children. Two of the studies were in the UK (Gilbert et al, 2002; Slattery, nd), one in Australia (Fudge and Mason, 2004), and two in the USA (Anderson et al, 2006; Heneghan et al, 2004). All studies in this section used some form of qualitative enquiry, with consequently small sample sizes (from 14 to 127).

This is the only category where we found studies that specifically sought the perspectives or experiences of the children of PMHPs (Gilbert et al, 2002; Fudge and Mason, 2004) and in both cases the views reported were about the generality of identification rather than any specific method. Two other studies explored mothers' reactions to being screened formally for depressive symptoms when they brought their children for mental health care (Anderson et al, 2006) or for routine paediatric care (Heneghan et al, 2004). The final study reported mothers' experiences about being asked about their parenting responsibilities as part of their routine care in community mental health services (Slattery, nd).

Findings from studies of professionals

Level of identification

Seven of the eight studies in this section involved asking professionals about what they did, in a general sense, about identifying the parental responsibilities of adults with mental health problems or identifying the mental health problems of parents. The eighth study (Maybery and Reupert, 2006) reported the views only of those mental health and other welfare workers who did not feel able to discuss issues of parental mental health with their clients and this material is reviewed in the next sub-section (page 89ff).

Table 4.3 reports any data from the seven studies that indicate how professionals viewed their role in or success at identifying parents with mental health problems.

Three studies were of paediatricians; two based on national surveys (Olson et al, 2002; McCue Horwitz et al, 2007) and one on qualitative interviews (Heneghan et al, 2006) and explored the extent to which they felt that identifying maternal depression was part of their role. These studies were carried out in the USA, where many paediatricians work in primary care settings and are involved in providing 'well-child' services. This is different from the UK where general practitioners and health visitors would share a role in delivering this type of developmental and health checking for young children. The Olson et al (2002) and Heneghan et al (2006) studies are exclusively of primary care paediatricians while the McCue Horwitz et al (2007) study is not clear about in which setting the paediatricians surveyed were practising.

Overall 57 per cent of the primary care paediatricians in the Olson et al (2002) study believed it was their responsibility to recognise maternal depression, although 23 per cent could not recall a recent case. Of those able to recall a recent case, 29 per cent said that they had referred the mother on to a mental health provider and 22 per cent to the mother's own primary care provider. In the Heneghan et al (2006) study, 'most' of the 23 paediatricians interviewed said they felt it would be appropriate to ask mothers about their own health or well-being, but most also said that they would not ask about depression directly but rely on observational cues, such as flat affect. In the wider group of paediatricians in the McCue Horwitz et al (2007) study, 74 per cent reported that they did identify mothers with depression and 61 per cent that they would refer a mother they suspected of being depressed on for diagnosis or treatment.

In both the Olson et al (2002) and McCue Horwitz et al (2007) studies, only a small proportion of paediatricians (2 per cent and 4 per cent respectively) said that they would treat the mother themselves.

Table 4.3: Level of identification reported in studies of professionals working with PMHPs or their children

First author and date	Professionals involved	Level of identification reported	Record keeping	Action taken if identified	Country
Bibou-Nakou 2003; 2004	Teachers	40% could not easily identify a child living with a PMHP	-	None	Greece
Biebel, 2004	Mental health service providers	49% of states identify adult clients as parents and/or assess parenting	-	Not reported	USA
Nicholson, 1993	Mental health service providers	31% of states collected routine data on whether mothers with MHPs had young children	States that collected information did not necessarily record it on statewide information management system.	Not reported	USA
Gillam, 2003	AMHS (family therapy trainers) and CAMHS professionals	25/28 AMHS workers said they would be able to identify PMHPs among their clients. 24/27 CAMHS workers said they would be able to identify children with PMHPs	21/28 AMHS workers had no formal mechanisms for recording information about adults' parental status 20/27 CAMHS workers had no formal mechanisms for recording parental mental health	3/28 AMHS workers would have 'planned, purposeful involvement with therapeutic intervention' with children of PMHPs, if identified 21/27 CAMHS workers would have 'planned, purposeful involvement with therapeutic intervention' with PMHPs, if identified	UK

First author and date	Professionals involved	Level of identification reported	Record keeping	Action taken if identified	Country
Olson, 2002	Primary care paediatricians	57% believed it was their responsibility to recognise maternal depression	-	Of those able to recall a recent case (77% of total responding) 29% referred to mental health provider; 22% to mother's primary care provider; 32% provided counselling ≤ 5 minutes; 18% provided counselling ≥ 5 minutes; 27% recommended lifestyle changes; 18% involved family members; 18% scheduled more frequent meetings with themselves; 13% referred to self-help or support group; 2% treated with medication; 14% adopted 'watchful waiting'; 22% did not become involved in management at all	USA
McCue Horwitz, 2007	Paediatricians	74% reported identifying mothers with depression	-	61% would refer a mother suspected of being depressed for diagnosis or treatment. 4% reported treating mother for depression themselves	USA
Heneghan, 2006	Primary care paediatricians	'Most' of the 23 interviewed felt that it would be 'appropriate' to ask mothers about their own health or well-being but majority said they would not ask outright about depression but would rely on observational cues	-	Over three-quarters felt that mothers would be receptive if child's paediatrician referred them on to an appropriate provider of mental health services	

Gillam et al (2003) surveyed adult (AMHS) and child and adolescent mental health (CAMHS) workers in the West Midlands of the UK to explore how they worked together (or not) in relation to PMHPs and their children. The study had a specific focus on awareness of the parental roles of service users among AMHS workers and awareness of PMHPs among children with whom CAMHS were working. While the majority of both groups (25/28 and 24/27 respectively) said that they would be able to identify PMHPs or the children of PMHPs, few (7/28 and 7/27 respectively) had any formal mechanisms for recording information about adults' parental status or, in the case of CAMHS, parental mental health. Although localised and based on small numbers, this study seems to show that CAMHS workers were much more likely to be alert to identifying PMHPs, and to working formally with them when dealing with their children, than AMHS workers were to be aware of adult service users' parental roles or to work formally with their children.

Only one study of the role of teachers in identifying children of PMHPs was found for this review, published in two, very similar, papers (Bibou-Nakou, 2003; 2004). This research showed that, in Greece, 40 per cent of a sample of teachers felt that they could not easily identify children in their schools who lived with a parent with mental health problems.

The final two studies in this section that throw light onto identification are those which surveyed state mental health authorities in the USA in the 1990s and 10 years later. The approach was the same in both – a survey sent to the directors of state mental health authorities that asked about policies and processes in their state for identifying and supporting PMHPs. In the early 1990s (Nicholson et al, 2003) 31 per cent of states said that they collected routine data on whether mothers with MHPs had young children, although they did not all necessarily record that information on statewide information systems. Ten years later the proportion reporting that they identified adult clients' parental status and/or assessed their parenting had risen to 49 per cent (Biebel et al, 2004).

Factors that increase or decrease the likelihood of identification

All eight studies in this section reported on factors that seemed to facilitate or – more usually – hinder professionals' identification of PMHPs or their children. Table 4.4 presents information on those factors mentioned in more than one study.

Table 4.4: Main factors felt to affect likelihood of successful identification of parental mental health issues

First author and date	Training, knowledge, competence and liability	Time/resources available to professional	Identification systems	Inter-agency issues	Parental reaction	Primacy of worker-client relationship
Studies of professionals						
Bibou-Nakou 2003; 2004	Stressed need for specialist training to understand needs of children of PMHPs	Lack of educational psychology services	No formal policies on identification	74% reported no inter-agency planning		Although teachers see children's needs as part of their responsibility, do not necessarily feel comfortable dealing with PMHP issues in classroom
Biebel, 2004			Collect and use prevalence and personal experiential data	Collaboration		Focus on families and children
Nicholson, 1993				Parenting defined as social services problem not a mental health issue		Mother-child relationship not considered essential focus of public sector psychiatric care
Olson, 2002	64% incomplete training to diagnose/counsel 48% incomplete knowledge of treatment for depression 44% incomplete knowledge of DSM-IV diagnostic criteria	73% inadequate time to provide counselling 70% appointment time too short to take mother's history 20% mental health resources not available			25% mother reluctant to accept diagnosis 23% mother reluctant to see mental health professional 15% mother reluctant to begin anti-depressant medication	37% child's medical problems were more pressing

First author and date	Training, knowledge, competence and liability	Time/resources available to professional	Identification systems	Inter-agency issues	Parental reaction	Primacy of worker-client relationship
Mayberry, 2006	7% worker knowledge and skills re: adults and mental illness 3% worker knowledge and skills re: children	13% worker role, resources and time			25% patient's lack of insight and knowledge about their mental illness and impact on children	26% potential disruption to patient-worker relationship 21% impact of mental illness on patient
Gillam, 2003	Reluctance of AMHS workers to become involved with children in part to do with concerns about competence and confidence CAMHS workers more likely to feel confident about working with PMHPs because of prior background in AMHS			Extreme anxiety of AMHS workers about becoming involved with children of service users in part to do with boundary issues		
McCue Horwitz, 2007	74% lack of training in treatment 54% concerns about liability	64% lack of time to treat 55% lack of time to contact community MH service providers 54% too few community MH resources	60% lack of familiarity with screening instruments		34% patient unwillingness to seek care after being referred 26% patient dissatisfaction with referral process	4% fear of losing patient if maternal depression addressed

First author and date	Training, knowledge, competence and liability	Time/resources available to professional	Identification systems	Inter-agency issues	Parental reaction	Primacy of worker-client relationship
Heneghan, 2006	Most felt had not received training to recognise or discuss maternal psychosocial issues or to provide information	Almost all saw lack of time as a barrier			7/21 mothers' fear of judgement and stigma if revealing stress or depression	Trusting, continuous relationship will enhance communication about maternal depression. A third felt paediatric visit was not ideal discussing maternal issues

Training, knowledge, competence and liability

Six studies mentioned professionals' own perceived lack of training in parental mental health issues. Anxieties were high both among teachers, because they were not clinicians (Bibou-Nakou, 2003; 2004), and among paediatricians, because they did not normally deal with adult mental health care issues (Olson et al, 2002; McCue Horwitz et al, 2007; Heneghan et al, 2006). By contrast, among mental health and other welfare workers who had said that they could not discuss issues of parental mental health problems with their clients (Maybery and Reupert, 2006), worker training and knowledge seemed to play only a small part in their reluctance to engage with these issues – only 7 per cent mentioned this as a barrier.

A related issue was professionals' perceived competence and potential liability if they engaged with issues for which they were not trained (Gillam et al, 2003; McCue Horwitz et al, 2007). Gillam et al (2003) argue that the reluctance of AMHS workers to become involved with the children of PMHPs was in part to do with their concerns about competence. By contrast, CAMHS workers were more likely to feel confident about working with PMHPs because many had a prior background in AMHS.

Time and resources

In all three studies of paediatricians high proportions reported that lack of time was an issue that prevented their working with mothers' mental health issues, either in directly supporting the mothers or in referring them on to others. Although both the Olson et al (2002) and McCue Horwitz et al (2007) studies took samples from the USA's national organisation of paediatricians, their respondents had different views about whether or not mental health resources were available to them. Only 20 per cent of Olson et al's sample felt that lack of mental health services was a hindrance in identification and referral, compared to 54 per cent of McCue Horwitz et al's sample. This may reflect the exclusively primary care focus of the Olson et al study where, perhaps, paediatricians are more aware of other resources available in their communities.

By contrast, again, resources and time played a relatively small part in the reasons given by those mental health and welfare workers who were reluctant to work with their clients on parenting issues – 13 per cent mentioned this as a major barrier (Maybery and Reupert, 2006).

Identification systems

Three studies reported issues to do with identification systems or processes. Teachers in Greece (Bibou-Nakou, 2003; 2004) said that there were no formal policies on identifying the children of PMHPs. Experience in state mental health authorities in the USA was that collecting and using both prevalence data and parents' experiential data was important in the success of developing overall policies and programmes for PMHPs and their children (Biebel et al, 2004). Only one of the studies of paediatricians explored

this issue: 60 per cent of respondents in McCue Horwitz et al (2007) said that they lacked familiarity with screening instruments that might enable them to identify parents with mental health problems.

Inter-agency issues

Working across adult and children's service boundaries is clearly important in relation to working with PMHPs and four studies in this section refer to inter-agency issues in some way or another. The Nicholson et al (2003) study highlighted this in the USA when commenting on findings from state mental health authorities that parenting tended to be seen as a social services rather than a mental health issue. Research carried out 10 years later (Biebel et al, 2004) subsequently identified collaboration across boundaries as one of the keys to success in meeting the needs of PMHPs. Gillam et al (2003) similarly expressed the view that AMHS workers' anxiety about becoming involved with the children of service users was, in part at least, to do with boundary issues. In Greece, 74 per cent of teachers researched said that there was no inter-agency planning that would help them meet the needs of children living with PMHPs (Bibou-Nakou, 2003; 2004).

Parents' reactions and the primacy of the worker-client relationship

Four studies referred in some way to how parents might react to being identified as having a mental health problem. Among paediatricians in the USA, between a quarter and a third in the three studies felt that parents' reactions would hinder the ability to identify and support them. A quarter of the respondents in Olson et al (2002) felt that mothers would be reluctant to accept a diagnosis of depression, 23 per cent that they would be reluctant to see a mental health professional, and 15 per cent that they would be reluctant to take medication. Similarly, a third of respondents in the McCue Horwitz et al (2007) study felt that mothers would be reluctant to seek care after being referred and 26 per cent that they would be 'dissatisfied' with the referral process. Heneghan et al's (2006) qualitative interviews revealed contradictory views. Over three-quarters of the paediatricians felt that mothers would be receptive if their child's paediatrician referred them on to an appropriate provider of mental health services. However, a third believed that mothers' fear of judgement or stigma if they revealed stress or depressive symptoms would impede identification.

Among mental health and other welfare workers who had said they could not discuss parenting issues with their clients (Maybery and Reupert, 2006), 25 per cent identified parents' lack of insight or knowledge about their mental health problem and its impact on their children as a main barrier. However, unlike among the paediatricians – where structural or resource issues were seen as most important – the reaction of parents was one of the barriers mentioned most often by this group.

Also for this group, the primacy of the worker-client relationship was an important barrier; 26 per cent mentioned potential disruption to the relationship as a reason for not discussing parenting and children with their clients.

The appropriate focus for their work was an issue for some paediatricians too: 37 per cent of Olson et al's (2002) respondents reported feeling that the child's medical problems would be more pressing than the mother's, and a third of Heneghan et al's (2006) respondents felt that a paediatric visit was not ideal for discussing maternal issues. Similarly, while teachers in Greece saw children's needs as part of their responsibility, they did not necessarily feel comfortable dealing with issues around PMHPs in the classroom (Bibou-Nakou, 2003; 2004).

The surveys of state mental health authorities in the USA (Nicholson et al, 2003; Biebel et al, 2004) show that services' priorities can change. While Nicholson et al (2003) reported that the mother-child relationship was not considered an essential focus of public sector psychiatric care, Biebel et al (2004) report that an explicit focus on families and children enabled states to develop mental health policies and programmes for parents **and** their families.

Findings from detection studies

We move on now to those studies that assessed the extent to which professionals actually identified PMHPs or their children in their practice. Two studies were of social workers alone (Sheppard, 1997; Needlman et al, 1999; Hatfield et al, 1997), one of in-patient psychiatric services alone (Gross and Semprevivo, 1989), and two covered a mixture of in-patient, out-patient and community psychiatric care settings (Vanharen et al, 1993; Iddamalagoda and Naish, 1995).

Level of identification and any action taken

As Table 4.5 shows, two studies of social workers revealed that they were likely to under-identify depression in mothers, when working in generic children and family services (Sheppard, 1997) or in paediatric primary care (Needlman et al, 1999). However, the Needlman et al (1999) study shows that, if given screening information that indicated high depression scores, social workers responded to this by referring most mothers (90 per cent of the high scorers) on to mental health services. However, few of the mothers referred actually took up the appointment offered. Further, the Sheppard (1997) study suggests that, even if they do not formally 'recognise' mothers' depression, social workers do work more intensively and, apparently, for longer with depressed women than with those who are not depressed. The third study of social workers involved analysis of their recording of parental status when assessing adults for compulsory detention under the UK 1983 Mental Health Act (Hatfield et al, 1997). While this study found that 15.5 per cent of assessments involved parents of dependent children, it did not assess how accurate social workers were in their overall identification of parental status. Other results presented in the paper suggest that information about parenting was often missing from monitoring forms.

Table 4.5: Level of identification reported in detection studies

First author and date	Professionals involved	Level of identification reported	Record keeping	Action taken if identified	Country
Detection studies					
Sheppard, 1997	Social workers working with families where there are child and family concerns	11% of women considered depressed by social workers compared to 36% identified on Beck Depression Inventory	Instruments not used as part of normal practice	Women were already on caseload. Depressed women had higher average number of interviews with social workers in previous 6 months ¹ . Depressed women more likely to have been in contact with social workers for 5 or more years ²	UK
Needlman, 1999	Social workers working with mothers with MHPs	67% of mothers identified as depressed using CES-D. 43% of these identified by social worker as showing moderate or severe depressive symptoms	As part of exploratory study	90% of high scorers on CES-D were referred for mental health services. 26 of these (53% of all high scorers) told social worker that they intended to follow up on recommended appointment. Only three mothers subsequently attended appointment	USA
Vanharen, 1993	In-patient and out-patient mental health service practitioners working with adults with MHPs	There were no cases in which review of case notes failed to confirm the data obtained from interview with parents	Research interview information compared against case notes	Of 47 patients with children 19 (40%) reported that psychiatrist had enquired about their children. 12 (25%) reported that psychiatrist had been helpful in some way in relation to children/parenting	Canada
Gross, 1989	In-patient, mental health service practitioners	21 mothers identified in case notes as mothers, but only 9 referred to parenting concerns, 1 recorded who was caring for child in mother's absence, none addressed mother's ability to parent following discharge and none contained any assessment of parent/child relationship	Normal record keeping	One set of case notes included a problem and goal in the treatment plan related to parenting. The remaining 20 did not identify parenting as a treatment issue	USA

First author and date	Professionals involved	Level of identification reported	Record keeping	Action taken if identified	Country
Iddamalgoda, 1995	In-patient, out-patient mental health and generic community health service practitioners working with adults with MHPs	In-patient records: information about children was inconsistent in content and amount. Sometimes difficult to tell from records if children living with parent at time of admission or not. No information on discharge summary about children unless recorded as next of kin Out-patient records: information about family composition not routinely collected unless hospital admission takes place Impossible to judge from this study the level of identification achieved in community settings	Normal record keeping	Not part of this study to explore actions taken	UK
Hatfield, 1997	Approved Social Workers	Not clear. Study reports that 551/3554 assessments involved adults living in households with their dependent children but later results suggest a high degree of partial completion of forms that may have affected detection of parental status	Routine completion of monitoring forms	Authors suggest that parents were less likely to be compulsorily detained, but do not control for other factors that might have explained this. Do not report actual numbers involved but do present a chi-squared statistic	UK

1. Average no (SD) of interviews for depressed women 17.19 (20.22) compared to 13.89 (12.78) but these very large SDs mean that the t test statistic was not significant ($t=59.97$, $p=0.34$, $df=0.95$ (sic))
2. 36% of depressed women in contact with social workers for 5 or more years, compared to 19% of non-depressed women. This is a statistically significant difference on our reanalysis. $X^2 = 4.03$, $df=1$, $p=0.45$

The three remaining studies, in a range of mental health service settings, involved reviewing case notes and records to assess how often parenting issues were identified for adults with mental health problems. The overall picture from these small studies is not encouraging. Vanharen et al's (1993) Canadian study found that case notes were usually accurate in their recording of parental status, compared with parents' own accounts. However, only 40 per cent of patients with children reported that their psychiatrist had ever enquired about their children. Over a half of these felt that the psychiatrist had then been helpful in some way in relation to their children or parenting. In the Gross and Semprevivo (1989) study of in-patient services, a review of records of married or divorced women aged between 18 and 45 found motherhood reported in 75 out of 99 cases. In 21 of these, mothers were recorded as having at least one child under the age of 6 years. However, only nine of these 21 records referred to parenting concerns, only one recorded who was caring for children in the mother's absence, and no record contained any assessment of the parent-child relationship or addressed the mother's ability to parent following discharge from in-patient care. As a result, only one record included any kind of treatment objective related to parenting. Finally, in a UK study, Iddamalgoda and Naish (1995) found that in-patient records were inconsistent in the content and amount of information they contained about the children of PMHPs, and that it was sometimes difficult to tell from the records whether children were living with the parent at the time of admission or not. No information about children was given on discharge summaries unless the child was identified as the next of kin. Out-patient records were even less useful; information about family composition was not routinely collected unless hospital admission was to take place.

Factors that increase or decrease the likelihood of identification

Only two of the studies explored in any formal way factors that increased or decreased the likelihood of professionals identifying PMHPs (Vanharen et al, 1993; Iddamalgoda and Naish, 1995).

In the Vanharen et al (1993) study, the parent's sex, marital status, diagnosis, duration of care, family history of mental disorder, suicide or violence, and the presence of children under the age of 18 years were examined to see if they were related to the likelihood of a psychiatrist having enquired about the child. None of these factors was found to be statistically significantly related to enquiry, although with the very small numbers involved in this study it is difficult to know whether or not there really was no relationship.

As part of the Iddamalgoda and Naish (1995) study, five adult psychiatrists were interviewed about their role in identifying and working with PMHPs and their children. All said that while it was important to know whether patients had children, in order to compile a family history and understand the patient's background, the focus of their work remained the adult. As a result, children were 'only relevant in the sense that they may affect the mental state of their parent' (Iddamalgoda and Naish, 1995: 25). All five psychiatrists said that they would liaise with social services departments only if they had serious concerns about the welfare of a child. Interviews with community-based

professionals working in child health or neighbourhood services reflected this; they reported that adult mental health service providers saw the adult as the client, not the child, and therefore did not share information with them.

Further, different professionals saw confidentiality in different ways: some adult services staff were said to 'prohibit routine information sharing unless there was a clear "need to know" policy' (Iddamalgoda and Naish, 1995: 27). Health visitors reported that information sharing was ad hoc and informal; they found out about PMHPs only if the parents themselves or their GP shared this information, or if a practice-attached community psychiatric nurse told them. Health visitors, school nurses and speech and language therapists also reported feeling that they were unskilled in recognising and dealing with parental mental health problems.

Findings from studies of identification systems

Four studies, all of them carried out in the USA, tested the feasibility, and in some cases the effects, of implementing routine screening for parental depression in paediatric care settings, both in primary care (Feinberg et al, 2006; Olson et al, 2006; Kemper et al, 1994) and in emergency departments (Flynn et al, 2004). The latter two studies were part of prevalence studies, but were also interested in the feasibility of implementing the screening measure in regular practice. Two of the studies were designed only to screen mothers; the others (Kemper et al, 1994; Olson et al, 2006) screened all parents, but reported data only for mothers.

The Feinberg et al (2006) study was a qualitative exploration of the acceptability of a detection system to both professionals and mothers. The other three could be described as quantitative, implementation studies with more and less rigorous sample selection, only one of which (Olson et al, 2006) reported mothers' reactions to being screened.

Level of identification achieved and any action taken

The level of 'capture' of parents in the three quantitative studies varied (see Table 4.6). In the two studies that were researcher-led, capture was 95 per cent (Kemper et al, 1994) and 100 per cent (Flynn et al, 2004) of those recruited. By contrast, in the study that was testing implementation in routine practice (Olson et al, 2006) 74 per cent of parents were screened during a pilot study phase and 67 per cent during the feasibility study proper.

Table 4.6: Level of identification reported in studies of identification systems

First author and date	Professionals involved	Level of identification achieved	Record keeping	Action taken if identified	Country
Studies of identification systems					
Feinberg, 2006	Providers of health care to children, site-based or community-based	Not reported directly	In sites with electronic records, inserted into well-child visit templates. In other sites, kept as part of paper record	Providers used screening element to guide further management. Questions facilitated discussion and prompted providers to record presence or absence of suicidal or homicidal thoughts. Mother requested range of follow-up services. Those with low levels of depression often declined further intervention. More severely depressed mothers tended to prefer own primary care provider	USA
Olson, 2006	Paediatricians and nurse practitioners in paediatric primary care	74% parents screened during pilot phase, 67% during feasibility phase. Of mothers screened, 17% had positive response to one of the screening items and 6% had higher symptom levels	Screening instrument was on brightly coloured, single page with explanatory paragraph for parents, explaining why practice was screening and that result would be discussed during the visit. Parents provided response to screening questionnaire without identifiers and researchers did not collect any other parental information.	57% of mothers who screened positive thought they might be depressed and 84% of those were prepared to take action. Mothers with low level symptoms were more likely to see themselves as stressed rather than depressed. For those with low-level symptoms: 26% of clinicians discussed impact on child; 24% referred to primary care physician, mental health professional or community support; 7% planned follow-up visit or telephone call; 38% did any of these	USA

First author and date	Professionals involved	Level of identification achieved	Record keeping	Action taken if identified	Country
				For those with higher-level symptoms: 40% discussed impact on child; 42% referred to primary care physician, mental health professional or community support; 13% planned follow-up visit or telephone call; 62% did any of above. Differences between low and high symptom mothers all statistically significant except planning follow-up visit or telephone call	
Flynn, 2004	As part of research project only	100% of mothers recruited were screened. 28% had elevated CES-D scores and 17% screened positive on RAND measure used. 31% registered on one or both measures	For research purposes only	Of the 31% identified as at risk for depression, 78% reported that they were not currently receiving any treatment	USA
Kemper, 1994	Paediatric care professionals in one site, researchers in others	Possibly 95% of those recruited were screened. Between 12% and 35% screened positive at different sites. In 'high risk' sites 27% and 35% screened positive; in military site 24% screened positive; in 'low risk' sites 12%, 15% and 19% screened positive	In one site as part of routine records, in other sites for research purposes only	Not reported here	USA

The presence of researchers in two studies undoubtedly enhanced the recruitment of parents, and would not be able to be replicated in normal practice. The main reason for not screening parents in the 'real world' setting (Olson et al, 2006) was reported by the clinicians to be 'office screening routine disrupted'. In the two phases of the study, refusal rates were only 3 per cent and 6 per cent, suggesting that, overall, a short screening instrument was acceptable to the population studied. However, this project was carried out in rural practices, serving small communities with predominantly white populations.

The proportion of parents identified with depression via use of the screening instrument varied considerably across the studies: 17 per cent in the Olson et al (2006) study, 31 per cent in the Flynn et al (2004) study, and between 12 per cent and 35 per cent in the Kemper et al (1994) study, depending on the site where care was delivered. One of the main research questions in the Kemper et al (1994) study was about the effect of screening for depression only in health care settings where there was a higher risk of mental health problems. This project showed that even in 'low risk' settings a sizeable minority of mothers were nonetheless displaying symptoms of depression.

'Capture' was not reported directly in the qualitative study (Feinberg et al, 2006), however, mothers' views about being screened were explored. Their initial reaction was 'ambivalence about being asked about their own emotional health during their child's visit' (p 698) and stigma was said to be an issue in 'immigrant communities'. Mothers also expressed anxiety that acknowledging depressive symptoms would prompt the involvement of child protection services.

As Table 4.6 shows, two of the studies explored what happened when parents were identified as showing depressive symptoms. Interviews with both mothers and health care providers in the Feinberg et al (2006) study show that providers used the screening results to guide further management and that the screening questions facilitated discussion and prompted providers to record the presence or absence of suicidal or homicidal thoughts. Mothers did request a range of follow-up services although those with lower level symptoms often declined further intervention.

In the Olson et al (2006) study, only 57 per cent of the mothers who screened positive for depression thought they might be depressed and those with the lower level symptoms tended to see themselves as stressed rather than depressed.

Of those who did feel that they might be depressed, the majority (84 per cent) were prepared to take action about it, although as we saw in the previous section, intending to take action and actually doing so are different things. Professionals reacted to having information about depressive symptoms and seemed to vary this according to the level of symptoms. However, even with mothers with high-level symptoms, fewer than two-thirds of the professionals in the Olson et al (2006) study did anything concrete about referring on or following-up (see Table 4.6). This issue is explored further in the following sub-section about what hinders or facilitates identification.

Factors that increase or decrease the likelihood of identification and follow-up action

Only two studies in this section explored in any detail what made screening in normal practice feasible or what influenced whether or not follow-up action occurred.

Feinberg et al (2006) concluded that routine screening was feasible and had been successfully implemented in a low literacy, multilingual population. Providers had not found the two-item screening instrument (the PHQ-2²⁰) to be burdensome and screening had opened up new opportunities for discussion. However, some were opposed to screening at all, believing that they 'already assessed maternal mood informally and did not want to ask standardised questions' (p 698). Some expressed anxieties about time constraints that, 'when probed, often revealed underlying concerns about emotional availability required to address the issues should a mother disclose symptoms' (ibid). The mothers' view was that the quality of their relationship with the paediatrician determined their willingness to answer the screening questions openly.

Olson et al (2006) used logistic regression to explore which aspects of the mothers' reaction to the screening influenced the paediatricians' propensity to refer them on for support with their possible MHPs. Table 4.7 presents the findings from this analysis. Here we can see that, after controlling for differences between practices, a mother's view about her symptoms and willingness to take action were strongly related to the paediatrician referring her elsewhere for support. A history of MHPs or current treatment and the size of the depressive symptom score were also important in influencing clinicians' actions.

Findings from studies of parents' and children's views about being identified

Finally, we come to the five studies that throw some qualitative light onto parents' or children's views about the need for PMHPs to be identified.

As Table 4.2 shows, two of these studies canvassed the views of children of PMHPs; in one case these were children associated with a single community support project for people with mental health problems in the UK (Gilbert et al, 2002) and in the other were children of PMHPs selected from across projects in Australia (Fudge and Mason, 2004). The other three studies were of mothers with MHPs, in one case those whose children also had mental health problems (Anderson et al, 2006), in another mothers bringing their children for routine paediatric care (Heneghan et al, 2004) and in the third mothers who were already using community mental health services for themselves (Slattery, nd). Of the three studies of mothers, only one (Slattery, nd) was carried out in the UK; the other two were from the USA.

Table 4.7: Relationship between maternal factors and likelihood of paediatrician referring mother for support: results of logistic regression

Study	Factor	OR for referral (95% CI)
Olson et al, 2006	Mother thinks she might be depressed and is prepared to take action	28.3 (12.0 - 66.9) p≤.001
	Mother thinks she might be depressed but does not want to take action	5.0 (1.3 -18.7) p=.02
	Mother feels stressed not depressed	3.9 (1.6 - 9.6) p=.02
	Mother has history of MHPs	7.5 (2.4 -23.4) p≤.001
	Mother is currently receiving medication and/or counselling	2.7 (1.2 - 6.1) p=.014
	Size of depressive symptom score	1.7 (1.3 -2.0) p=.001
	Age of child	0.99 (0.92 – 1.06) p=.78

Factors that influenced views about being identified

Children and parents tended to give different accounts of the positives and negatives of parental mental health problems being identified. However, one issue did seem to run through all the accounts, whether overtly or covertly. As Table 4.8 shows, this was the fear that parental competence would be judged and, thereby, child protection issues raised. Children's fear of being 'taken away' (Gilbert et al, 2002; Fudge and Mason, 2004) was echoed in mothers' anxieties about their parenting activity being observed, (Slattery, nd) and judged incompetent by those who had the power to take their children away (Heneghan et al, 2004; Anderson et al, 2006). As a result, both children and parents were likely to keep needs hidden. For children this might be experienced as keeping family 'secrets', not wanting to 'betray' the family, and certainly not revealing problems to teachers (Gilbert et al, 2002). For adults, it was about keeping boundaries around what they were prepared to talk about with professionals and possibly, therefore, not having their own needs adequately recognised (Heneghan et al, 2004; Slattery, nd).

Older children interviewed in the Fudge and Mason (2004) study were able to identify positive aspects to being identified as the children of PMHPs. First, they felt that full understanding of their parent's family situation would enable professionals involved with adults to provide better care. Secondly, they felt that if professionals knew about them, they could benefit from sharing the professionals' knowledge of MHPs and the services available to support children. Thirdly, they thought if they were identified, then children's needs, including those relating to their safety, could be considered both while a parent was in hospital and when they returned. This last point is in interesting contrast to the anxieties children also expressed about family 'secrets'.

The Anderson et al (2006) study of women with MHPs whose children were themselves receiving intervention for mental health problems, raises a number of important theoretical issues about maternal depression and anxiety and what might be most

appropriate in terms of support or intervention. Two-thirds of the mothers were lone parents, over half had low household incomes (below \$15,000 per year), 40 per cent were from African American communities, and they had an average of 2.6 children under the age of 18 years. It is not surprising, perhaps, that many saw their distress as caused by external factors – their income, their housing, and their family circumstances – and therefore could not see the point of identification that led to intervention on ‘internal’ issues. Rather, their main needs were for change in their social and economic circumstances. They believed their depression to be ‘normal’, or at least inevitable, given the difficult lives they led, and not the sort of depression that involved ‘seriously impaired functioning’ (Anderson et al, 2006: 934). They were not sure that the ‘system’ was able to distinguish between their type of ‘manageable’ depression and this more dysfunctional type. As a result, they feared being judged inadequate as parents, for reasons that had more to do with the way socio-economic circumstances were structured than with their mental health status.

However, they were ambivalent about seeking help. Most of the women had ‘significant’ depressive or anxiety symptoms, and did report wanting to have their own needs addressed when they brought their children for help. This had not happened for most; they reported that ‘few of the clinicians they had seen with their children had asked them how they themselves were doing’ (Anderson et al, 2006: 939) and they were disappointed about this.

The perspective of these women is important, given the epidemiological evidence, reviewed in Chapter 3, about the strong links between poor socio-economic circumstances, having young children at home, and common mental disorders.

Trust of professionals was an issue raised in most of these studies. Children of PMHPs talked about not trusting other adults, and particularly teachers, if they revealed their situation, and the mothers’ accounts of hesitancy in raising their own needs was based in a mistrust of the likely reaction if they did. On the one hand, services might over-react and institute child protection processes (Heneghan et al, 2004; Slattery, nd); on the other hand, adult mental health services failed to understand the centrality of motherhood to women’s lives and were seen as ‘inept’ in relation to parenting issues (Slattery, nd: 44). Professionals who genuinely considered the family as a whole, and who had a continuous relationship with the mother were thus more likely to be trusted with discussion of parenting issues (Heneghan et al, 2004).

Discussion

Limitations of the material reviewed

As discussed in Chapter 2, the quality of the studies reviewed for the question on detection and identification was variable, with a major problem being the ability to generalise beyond the limited populations on which the research was based. However, as we also pointed out, several of the studies were clearly labelled as feasibility studies: exploring whether detection or identification of PMHPs was possible or acceptable in

certain health care settings, or testing systems that would allow detection or identification. Overall, these studies present a useful foundation from which further research, and particularly in UK service settings, could be developed.

Overall conclusions from the studies reviewed

The overall conclusion of the research reviewed in this chapter is that, left to their own devices, professionals who work with adults are probably not very good at identifying parents with mental health problems or their children. This seems to be particularly so for those who work with adults with mental health problems in in-patient and outpatient health care settings. By contrast, those used to working with children, whether in mental health care or in children and families services more generally, may be somewhat more attuned to picking up parental mental health problems.

The synthesis provided in this chapter suggests that there are several, sometimes inter-related, reasons for whether or not professionals look for and identify PMHPs. First, there are issues of the professionals' perceptions of their competence, training and knowledge – in relation to adult mental health for those who work primarily with children or outside mental health services, and in relation to children for those who work primarily with adults. Secondly, there are issues around their view of the professional role. This is particularly evident among those who work with adults with mental health problems, where the adult appears to remain the focus of their work, regardless of whether or not he or she is a parent. Thirdly, for those working in primary care settings (in the USA) time for proper consultation with parents is reported as a barrier to identifying and working with PMHPs.

Another barrier to whether or not professionals identify PMHPs is, of course, whether parents themselves or their children wish to be identified. Both qualitative and quantitative studies reviewed identify the main barrier as anxiety about what happens after identification. Both parents and children worry that if they reveal mental health problems or parenting stresses there will be a 'rush to judgement' about parenting competence that could lead to child protection processes being invoked. Identification, even when there are real needs to be addressed, is thus seen as a potentially high-risk move for parents and children. Related to this is parents' scepticism about professionals' or services' competence in relation to parenting issues. By contrast, a continuous relationship with a trusted professional might make all the difference in being willing to admit problems.

Similar issues influence whether or not parents choose to take up offered help, when they have been identified. In studies that evaluated formal screening processes, professionals responded to the information they received about parents' mental health problems by discussing the results and referring parents on for specialist support. However, only small proportions of parents then followed through with the referral. Again, the perceived risk of doing so, in terms of child protection processes, played a large part in their subsequent decision-making. The perceived relevance of the referral also plays a part for some parents. Mothers in poor socio-economic circumstances may

see these as more important in determining their current mental state than any underlying physiological or psychological factors that might be amenable to therapeutic intervention.

Simple screening tools for depression are apparently both feasible to implement in primary care and other settings, and do prompt professionals to work with PMHPS. However, all the evidence in relation to this is from studies carried out in the USA where health care settings (and parents' and children's access to them) are different from those in the UK.

Whether or not identification then translates into parents receiving support is a more complex issue, which is discussed in much more detail in the chapter on access and acceptability in review two (Beresford et al, 2008).

Notes

1. Incidence is defined here as the number of parents who develop mental health problems in any given period.
2. Prevalence is defined here as the number of parents who have mental health problems at any specified point in time.
3. The definition of 'mental health problem' is that laid down in the SCIE commissioning brief (p 4) and comprises 'primary diagnosis/symptoms/need identified as a mental health problem' including self-identification of mental health problems by parents. For the purpose of these reviews, and as set down in the commissioning brief, mental health problems do **not** include '**sole** diagnoses of substance misuse, ante-natal or post-natal depression, mental health problems during pregnancy and up to six months after birth, or Munchausen's Syndrome by Proxy' (p 4).
4. For the purposes of this work parents are defined as in the SCIE commissioning brief (p 4): 'mothers, fathers, adoptive parents, legal guardians, foster parents, and all adults with a primary caring responsibility for a dependent child aged 18 years or younger, whether resident or non-resident.'
5. As in the SCIE commissioning brief (p 4) children are defined as: 'children 18 years or younger, some of whom will be "young carers"'.
6. Here we mean subgroups of parent or adult populations as defined by socio-economic variables (for example, ethnicity) or users of mental health services, but **not** subgroups defined by children's use of services (for example, the prevalence of MHPs among parents of children taken into care). It is not possible to define all sub-populations in advance as this will be dependent on what the research literature contains.
7. This includes self-report and detection of PMHP through services'/professionals' encounters with other family members.
8. Structured enquiry included audits, inspections and other structured activity that was not research.
9. For example, all children registered in a general practice in a given area, all children at school in a given area, and national, representative sample surveys of children.
10. Using sub-groups of children with specific problems or needs of their own to derive incidence or prevalence figures for PMHPs would inevitably produce data that was not generalisable beyond the specific **and local** service setting within which those children were found.

11. 'Narrative synthesis' refers to an approach to the systematic review and synthesis of findings from multiple studies that relies primarily on the use of words and text to summarise and explain the findings of the synthesis. Whilst narrative synthesis can involve the manipulation of statistical data, the defining characteristic is that it adopts a textual approach to the process of synthesis to 'tell the story' of the findings from the included studies (Popay et al, 2006: 5)
12. While several of the national studies reported period prevalence (for example, monthly or yearly prevalence) this was usually for the whole population studied, and not only for those who were parents. Only one study (with results reported in two papers - Melzer et al, 1995; Jenkins et al, 1997) reported period prevalence in such a way that it could be reported for parents and these figures are summarised in table Az.1).
13. Defined as 'a general population defined by geopolitical boundaries' (Macfarlane et al, 2001).
14. People with MHPs identified via research based on community service settings – for example, via general practice records, day centre records and the like.
15. However, without a further point of measurement after 82m it is impossible to know whether this reduction is real or an artefact.
16. Women aged 18-24 in the Cox et al survey had the highest GHQ scores among women aged 18-44. Assuming that younger women are less likely than older women to be married and to have children might explain this pattern, at least in part.
17. Births in one year multiplied by 1,000 and divided by the number of women aged 15-44.
18. These were the terms used in the study, and appear to have been used as a proxy for ethnicity, although they actually define religious belief.
19. Both these national studies thus had a degree of similarity in their methods and approach to those used in the OPCS/ONS national surveys of psychiatric morbidity (Meltzer et al, 1995; Singleton et al, 2001).
20. Patient Health Questionnaire-2 (PHQ-2).

Over the <i>last 2 weeks</i> , how often have you been bothered by any of the following problems?	Not at all	Several days	More than half the days	Nearly every day
(a) Little interest or pleasure in doing things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Feeling down, depressed, or hopeless	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

See: Lowe, B., Kroenke, K. and Grafe, K. (2005) 'Detecting and monitoring depression with a two-item questionnaire', *Journal of Psychosomatic Research*, vol 58, 163-71.

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Total papers identified from R1Q1 papers' reference lists as being possibly relevant	108
Total of these papers already identified in systematic review searches	41
- SCIE searches	15
- SCIE + Database	16
- Potential Relevance searches	1
- Epidemiology searches	7
- SCO searches	1
- New references found	1
Total papers identified from R1Q1 papers' reference lists as being possibly relevant but not identified in other searches	67

Papers identified as potentially relevant from reference lists of included publications but not found via other searches

Review one question two

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Total papers identified from R1Q2 papers' reference lists as being possibly relevant	88
Total of these papers already identified in systematic review searches	65
- SCIE map	29
- SCIE + Database	25
- Potential Relevance searches	6
- Epidemiology searches	2
- SCO searches	1
- Australian systematic review paper	2
Total papers identified on R1Q2 papers' reference lists as being possibly relevant but not identified by other searches	23