Technical report for SCIE Research Review on access, acceptability and outcomes of services/interventions to support parents with mental health problems and their families

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July 2008

Working Paper No.
SCIE 2255

ISBN 978-1-871713-79-4

A CIP catalogue record for this report is available from the British Library.

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Acknowledgements

We acknowledge, with thanks, the input of our two specialist advisers, Professor Howard Meltzer of the University of Leicester and Dr Harriet Clarke of the University of Birmingham.

We also acknowledge the comments of the SCIE Advisory Group and of the user and academic referees. Rebecca Goldman of SCIE managed the link between SCIE and York with care throughout, and also participated in some of the selection of papers. Our thanks go to them all.

Sally Pulleyn produced this final report form 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

BDI	Beck Depression Inventory
CBCL	Child Behavior Checklist
CBT	Cognitive Behavioural Therapy
CES-D	Center for Epidemiological Studies – Depression Scale
CONSORT	Consolidated Standards of Reporting Trials
CRD	Centre for Reviews and Dissemination, University of York
ECDI	Eyberg Child Behavior Inventory
EPOC	Effective Practice and Organisation of Care Cochrane Group
ERIC	Education Resources Information Center
ITS	Interrupted time series
MHPs	Mental health problems
NICE	National Institute for Health and Clinical Excellence
PMHPs	Parents with mental health problems
RCT	Randomised controlled trial
SCIE	Social Care Institute for Excellence
SDQ	Strengths and Difficulties Questionnaire
YSR	Youth Self Report

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 1: How accessible and acceptable are services or interventions that support children, families, parenting or couple relationships when a parent has a mental health problem, in both the UK and elsewhere?

- Question 2: What outcomes do these types of services or interventions have for parents, children, families, parenting or couple relationships?

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 identity 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 eight worksheets and 58 columns headings in the database. For question two, there were 15 worksheets and 86 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. We used no formal assessment of quality for question one, which was dominated by qualitative material. For question two, we used the EPOC (2002) and Jadad (1998) criteria for assessment of randomised controlled trials (RCTs) and the Downs and Black (1998) criteria for assessment of non-RCT studies.

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, 61 studies, reported in 68 publications, were selected for review for question one and 37 studies, reported in 40 publications, for question two.

Quality of included studies

The quality of reporting for the studies included for question one was generally poor, especially in relation to sampling, the nature and representativeness of the sample, and data analysis. Samples were also small. For question two, the quality of reporting for the RCTs was usually poorer, and even poorer for the non-RCT studies.

Results

Question one

The first task for this question was to define what was meant by access and acceptability. Existing theoretical writing about access is largely about access to discrete health services. As a result, it was not suitable for exploring the ways PMHPs and their families might access support services. A framework was therefore developed to help understand the issue of access, in particular to identify the points at which individual and organisational/service factors may intervene when PMHPs and their families are trying to access support.

The definition of ‘acceptability of services’ in research is also ambiguous, with no obvious consensus about its meaning. Indeed, researchers rarely use the term ‘acceptability’ related to services. However, there was clear evidence, although based on a small number of studies, about factors that affect whether a parent or family member engages with or uses a service, once they have accessed it. This broadened the definition of acceptability of services but did allow us to draw a more complete picture of the factors that support or hinder use of services.

The evidence base was weak overall, meaning that we should be cautious about drawing firm conclusions. The quality of reporting, the small size of studies and the skewing of studies towards evidence about access and acceptability of health and social care services, as opposed to any support services that may be used by parents with mental health problems, all limit the ability to guide practice.

However, the review of the evidence did identify a number of factors that appear to act as barriers or facilitators to PMHPs and their children getting access to and then using support services (Figure 1).

A clear pattern that emerges is that strategies to improve access and/or to ensure parents or their children continue to use services need to intervene in a number of different ways:

- At an organisational or strategic level.
- In terms of services provided and the way they are delivered.
- In the way that individual staff work, their skills and the way they relate to service users.

In addition, the evidence suggests that services need to work more holistically with families. The lack of collaboration and service coordination, and ambiguities with regard to roles and responsibilities of different professionals mean that needs remain unmet and families fall through the ‘service net’.

Figure 1: Barriers or facilitators to parents with mental health problems and their families accessing and using services

<table>
<tr><th colspan="2">BARRIERS AND FACILITATORS TO ACCESSING SERVICES</th></tr>
<tr><th>Individual factors</th><th>Service/organisational factors</th></tr>
<tr><td>Socio-demographic factors

Race/ethnicity factors

Knowledge and belief factors
o <i>Understanding and acceptance of mental health problem</i>
o <i>Individual beliefs about help-seeking</i>
o <i>Knowledge of services</i>
o <i>Fears about losing custody</i>
o <i>Stigma</i>

'Life circumstance' factors
o <i>Conflicting demands on parents</i>
o <i>The presence of other stresses and difficulties</i>

Mental health factors

Other</td><td>Staff factors
o <i>Perceived roles and responsibilities</i>
o <i>Professional's view of the case</i>
o <i>The relationship between parent and professional</i>
o <i>Staff skills and expertise</i>
o <i>Staff time</i>

Service delivery factors
o <i>Ways of working</i>
o <i>Availability of worker</i>
o <i>Availability of services</i>

Organisational factors
o <i>Case level mechanisms and procedures</i>
o <i>Eligibility criteria</i>
o <i>Coordination and collaboration</i>

Other</td></tr>
<tr><th colspan="2">BARRIERS AND FACILITATORS TO USING SERVICES</th></tr>
<tr><td colspan="2">Mental health factors

'Use-ability' factors
o <i>Transport and childcare</i>
o <i>The 'fit' with existing schedules and demands on parents' time</i>

Acceptability factors
o <i>Sensitivity to ethnicity</i>
o <i>Appropriateness of the setting</i>
o <i>The therapeutic approach</i>
o <i>Sensitivity to parents' other needs and priorities</i>
o <i>Parents' acknowledgement of the need for support</i>

Staff factors
o <i>The parent-professional relationship</i>
o <i>Staff skills and expertise</i>

Other</td></tr>
</table>

The evidence also points to the need for services to take greater account of parents' priorities and desired outcomes, their perceptions about the cause of their mental distress, and to be more sensitive to the sometimes complicated, chaotic and straitened lives some of these families lead. Among families where the parents' mental health problem is not very severe or at crisis, there may be more pressing needs which the family wants to or has to deal with. In these situations, dealing solely with mental health problems runs the danger of being seen as 'tinkering at the edges'.

At best, the findings from this question can alert readers to the range of processes and factors that may influence PMHPs' and their families' access to and use of services. There will be yet unidentified or unreported factors that also affect access and use. In addition, there are factors which we know from other practice arenas are important in terms of support services for PMHPs, but which are currently under-researched (for example, race and ethnicity).

Question two

The following conclusions are based on the better quality studies of those reviewed.

Evidence from RCT studies

1. Impact on parental depression or depressive symptoms

Cognitive-based interventions may reduce depressive symptoms in mothers screened as 'at risk' for depression, compared to nothing else. However, with no placebo conditions, it is difficult to know whether it was the intervention itself or simply the attention generated by receiving the intervention that caused the effect.

By contrast, compared against a placebo and a 'no intervention' group in one trial CBT appeared to have no significant effect on depression in mothers whose children had behavioural problems. Indeed, a mother and toddler club appeared as effective in addressing depression in this trial. Similarly, when delivered alongside an existing family-focussed intervention, CBT appeared to add little to improved outcomes when depressed mothers have children with behaviour difficulties.

One trial of co-admission of mothers and children to hospital suggested that delivering psychiatric and psychotherapeutic care for depressed mothers while their children are with them in an in-patient setting may impede their progress towards recovery.

2. Impact on children's mental health

CBT for the children of depressed parents who are themselves at risk for depression may improve their overall mental health and reduce the risk of depression in the future. However, with no placebo condition it is impossible to know whether this apparent effect is due to the intervention itself or simply to giving the children some form of attention. A related trial of CBT for children already over the clinical threshold for depression suggested no effect over and above 'normal care'.

3. Impact on children's behaviour

None of the trials that measured change in child behaviour showed any difference between children in intervention and control groups. Similarly, among the children of depressed parents who were themselves depressed or 'at risk' for depression, CBT appeared to have no additional effect on child behaviour, over and above the improvement over time observed in all groups.

4. Impact on parenting

There is some suggestion from a pilot RCT and secondary analysis of a larger trial that a 'depressive symptom intervention' and a parenting programme, respectively, can improve aspects of mothers' parenting behaviour. However, this conclusion is necessarily tentative.

Evidence from non-RCT studies

Given their limitations, there was little robust evidence to glean from the non-RCT studies reviewed and synthesised.

1. Impact on parental mental health problems

Only one of three studies of slightly higher quality reported improvement in parental mental health over time, associated with the mothers' receipt of interpersonal psychotherapy.

Given the current evidence base for the effectiveness of various forms of psychotherapy for depressive symptoms this finding is hardly surprising. However, without control groups, we do not know whether change over time would have taken place for these parents anyway, or whether the intervention studied was any better or worse than any other intervention or 'usual care'.

2. Adherence to the intervention

Drop-out rates from interventions in three better designed studies were high – ranging between 12.5 per cent and 32 per cent.

3. Impact on aspects of children's social functioning

Two studies of relatively higher quality reported impact on some aspect of children's social functioning. One reported no significant change in the two measures of social functioning used for children whose mothers had received interpersonal psychotherapy.

The other reported that children whose depressed mothers had received psychotherapy were more accurate in their recognition and reporting of ‘negative affect’ language compared to children whose depressed mothers had not received psychotherapy or children whose mothers were not depressed.

This further synthesis of outcomes from the slightly higher quality non-RCT studies does not add anything to our earlier conclusion that there was little robust evidence from this element of this review to guide practice.

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 University of York, under its 'registered providers' agreement and it is the second 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 of and the 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 such support influences 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 second review was carried out. The technical report for the first review is published as Parker 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 relatively little evidence about if and how interventions and services support PMHPs, their children and families, or about how accessible or acceptable PMHPs, their children and families find such services or interventions. 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.

For example, Fraser and colleagues have recently completed a ‘critical review of intervention programmes for children of parents with a mental illness’ (Fraser et al, 2006). As its title suggests, this review’s focus was interventions for children, although it did also identify interventions targeted on parents. The main limitation of this review for the SCIE project is that it did not extract data but rather relied on the conclusions drawn by the authors of the papers reviewed. The publication from the review does not make clear the search strategies used or refer to any source where they can be viewed, does not specify the dates for which material was searched, and includes little synthesis of the results of the review, beyond identifying ‘gaps’ in the research literature.

Other systematic reviews of interventions, identified in the map, are also more restricted in their subject or methodological focus than what is required for the SCIE project. Barlow and Coren’s (2003) review of parent training programmes and their impact on mental health was restricted to randomised controlled trials and the mental health of mothers. Their later review of parenting programmes and their impact on psychosocial outcomes (Coren and Barlow, 2004) focused on teenage parents and their children. Kendrick et al (2000) reviewed the literature on a single form of intervention – ‘home visiting programmes’ – and included a wide range of participants deemed to be at risk for poor maternal or child health outcomes; this included but was not restricted to PMHPs. Finally, Oyserman et al (1994) did focus specifically on resources and support for PMHPs, however their review was also restricted to mothers, and is now rather dated.

The National Institute for Health and Clinical Effectiveness has consulted on national clinical management and service guidelines on antenatal and postnatal mental health, and guidelines were published in February 2007. These guidelines draw on two systematic reviews – one of clinical literature and one of health economics literature. Based on these, the guidelines report on psychological interventions intended to prevent or treat mental health problems 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).

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:

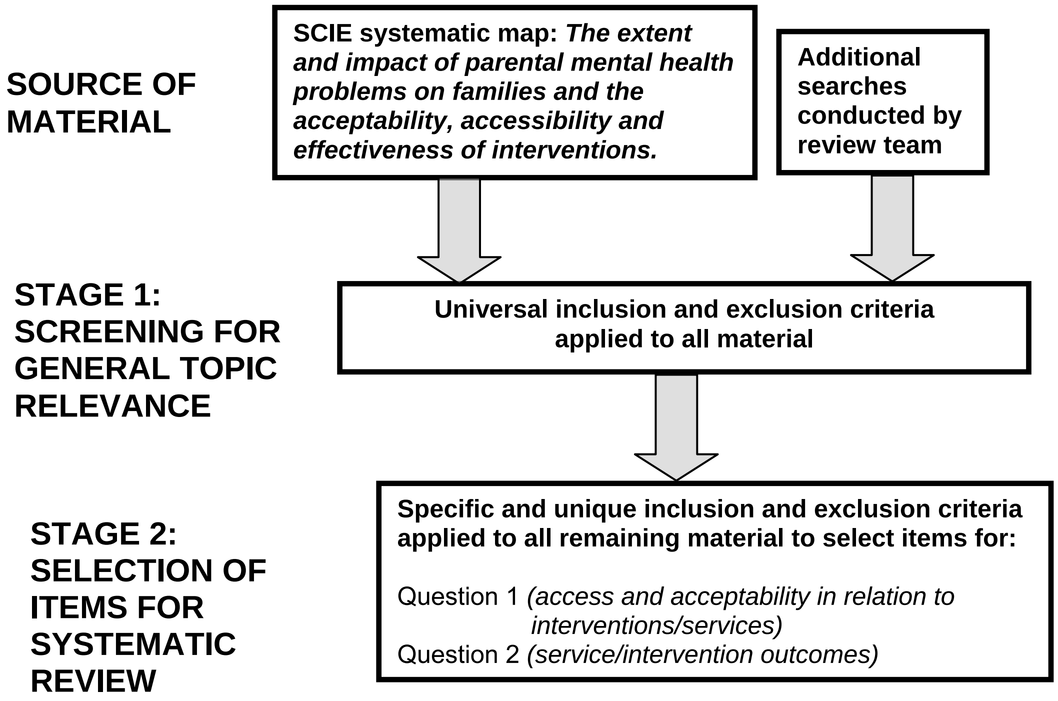
1. What is known about the accessibility and acceptability[1] of services/interventions[2] used in children's services, adults' services and family services in the UK and elsewhere that support children[3], families, parenting or couple relationships when a parent[4] has a mental health problem[5]?

2. What are the outcomes[6] of such services/interventions for parents, children, families, parenting or couple relationships?

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 access, acceptability and outcomes for service users 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 in a later section (pp 13-14).

Figure 1.1: The screening and selection process



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 (of, say, a model of care) where there is no evidence of either qualitative or quantitative structured enquiry being used[7] (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.

Stage one: screening for general topic relevance

Inclusion criteria

- Parents with mental health problems/the mental health of parents.
- Interventions or service use or service access or service acceptability for PMHPs.

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 accessibility and acceptability of services/interventions used in children's services, adults' services and family services in the UK and elsewhere that support children, families, parenting or couple relationships when a parent has a mental health problem.

Inclusion criteria

- PMHPs' experiences of access to services/interventions.
- Experiences of children of PMHPs of access to services/interventions.
- Other family members' experiences of access to services/interventions.
- Reporting by others of parents'/families' access to services/interventions.
- PMHPs' views on acceptability of services/interventions.
- Views of children of PMHPs on acceptability of services/interventions.
- Views of other family members' experiences of acceptability of services/interventions.
- Reporting by others of the acceptability of services/interventions to parents/families.
- Any setting or service.
- Any intervention.
- UK and non-UK.
- All study types.

Exclusion criteria

- Physical/physiological/pharmacological clinical interventions.
- PhD, unless subsequently published.

Question two

To identify, extract and synthesise research evidence on the outcomes of services/interventions (on children, parents, families, parenting or couple relationships) used in children's services, adults' services and family services in the UK and elsewhere, that support children, families, parenting or couple relationships when a parent has a mental health problem.

Inclusion criteria

- Any intervention/service.
- Any impact/outcome reported for parent, other family member, couple, or whole family.
- Any setting.
- Any country (UK and non-UK).
- All study types providing comparative data[8], for example, comparing an intervention with a control or 'usual service/care' condition or a before and after study.

Exclusion criteria

- Physiological or pharmacological clinical interventions.
- 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.

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. The number of papers so identified is reported on pp 11-12.

5. We also, towards the end of the review period, 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)
Childdata
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) would 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 PscyInfo 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 searched relevant web sites and 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.

Websites accessed:

- Department for Work and Pensions (social security and employment).
- Department for Communities and Local Government (housing).

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:
- 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 part of 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, 68 of which were not books, book chapters or otherwise unpublished conference papers. Of this 68, 42 (62 per cent) were not in the larger database 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 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, regardless of whether we might have felt it relevant. 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 detail in the reference listings at the end of the report (see pp 243-9).

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 others 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, 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, we used two specialist advisers for the reviews. The specialist advisor for review two was Dr Harriet Clarke. She is a researcher in the field of PMHPs, particularly in relation to parenting, as well as having relevant personal experience.

Screening of studies

The reader is referred to the flow chart on page 4 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 sources.

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 services/interventions or service use in relation to PMHPs. At this stage, no judgements about study type, quality or location were applied.

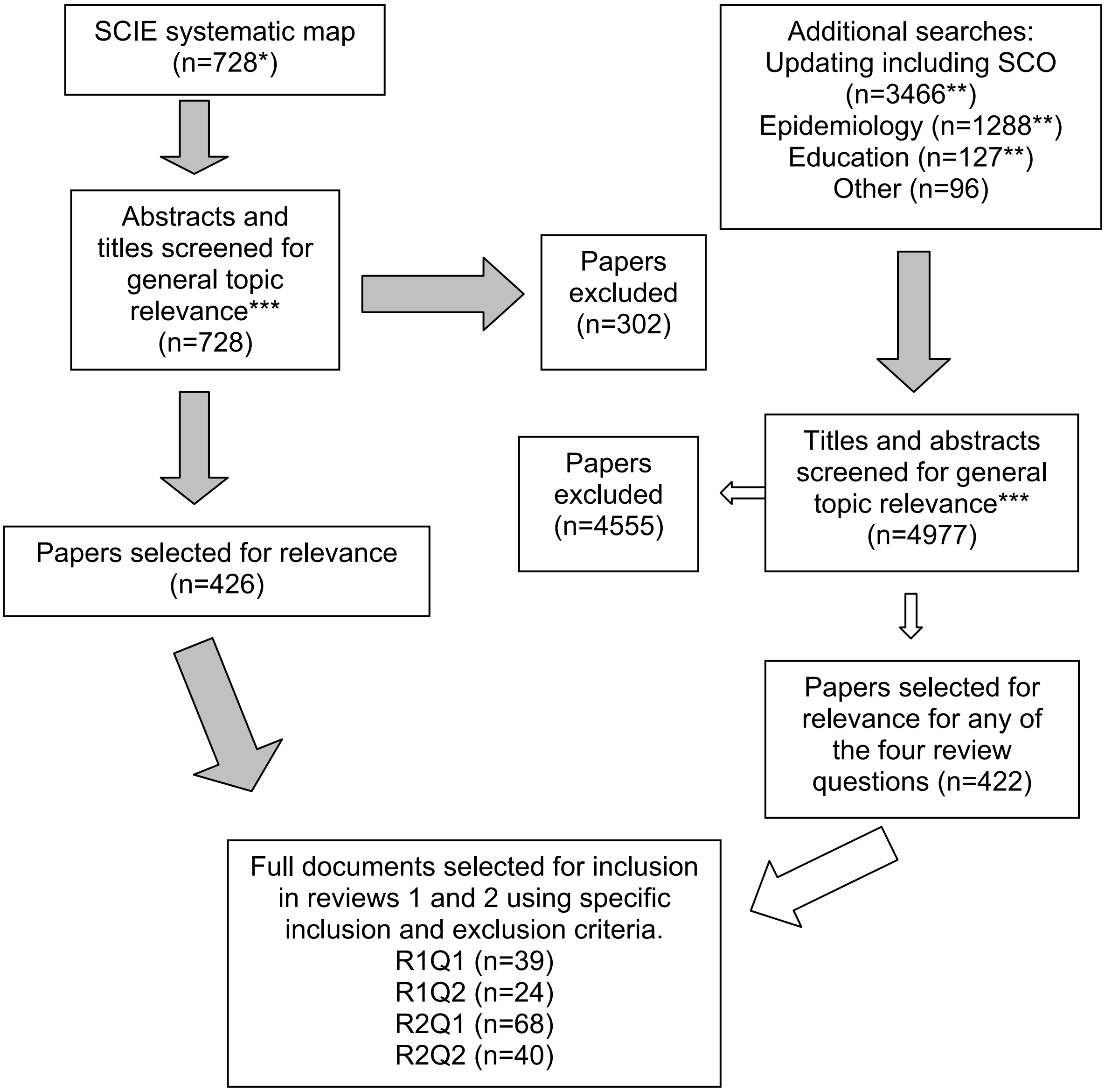
This stage was carried out by three members of the team, working in pairs, initially separately, and then to agreement. Decisions were made on the basis of titles and abstracts and skim reading of the publication. Decisions were recorded on a short form and reasons for exclusion were also recorded here. 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.

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.

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 identified[1]

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.

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 pp 5-6). 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).

Interim report

In addition to carrying out the reviews, SCIE had asked for a preliminary report on developing a typology of the types of services and interventions included in the systematic map. This work was carried out in December 2006 and a report produced in February 2007 (Parker, Beresford and Clarke, 2007). This report was based on analysis of the abstracts of studies included in the systematic map.

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. We also experienced difficulty with two studies included for question two which had published results at different stages of sample formation. This resulted in results reported for different sample sizes in different papers.

Separate data extraction sheets were developed for the two questions in this review, reflecting their completely different focus and the very different nature of the material included. For question one, papers were read in depth and a framework for data extraction agreed by the research team (see Appendix 4). Quantitative data, where present, were fully extracted but also summarised into text. For question two, 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 (see Appendix 4).

For question one, there were eight worksheets and 58 column headings in the database.

For question two, there were 15 worksheets and 86 column headings in the database, covering both quantitative and qualitative data. These are included in Appendix 4.

For question one, the two members of the team working on this question reviewed and checked cross-team consistency in applying the coding framework continuously.

For question two, all three members of the team working on this question extracted data on the first 10 papers and then met to discuss their decisions and deal with any apparent inconsistencies. Subsequently, single members of the team extracted data, and a second member checked them.

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. We did not contact authors for additional information except in one case (Beardslee) where we were keen to understand the relationship between data published in several papers.

The studies included to address the two questions were of very different types; for question one, they were predominantly qualitative in nature, whereas for question two they were all quantitative in nature.

For question two (the outcome of interventions), we used two approaches, depending on the design of the studies included. First, RCTs were quality appraised using a truncated form[9] of the Jadad checklist and the EPOC checklist (Jadad et al, 1996; Cochrane Effective Practice and Organisation of Care Group, 2002). These are well-established quality appraisal tools and, in the case of the EPOC checklist, developed specifically for studies about the outcomes of the ways in which care is practised or organised.

Quality appraisal for other types of quantitative studies is less well developed than for RCTs, and we explored a number of possible approaches. Downs and Black (1998) have developed a single quality checklist for both randomised and non-randomised studies of health care interventions and, following our preliminary reading of the material selected for this review, we felt that this would suit our purposes for any non-RCT quantitative studies of the impact of interventions or services. We discussed this with one of the authors of the checklist who agreed that its use would be appropriate. However, not all items on the checklist were always relevant to individual studies.

Quality appraisal for qualitative research is a more contested area, although several research groups have now published guidelines to assessment. As stated in the protocol of review two, we had originally planned that for any qualitative studies included for question two we would use the framework published by the Government Chief Social Researcher’s Office (Spencer et al, 2003) as it had been developed specifically for evaluation research. In the event, no qualitative material was used for question two.

Quality appraisal for question one proved impossible. The included material covered both quantitative and qualitative-based studies, with a very wide range in terms of ‘face’ quality and the depth of reporting of its research design, methods and, particularly, the way in which qualitative data was analysed. Further, many of the quantitative studies were small-scale, both in terms of sample size and scope (see Table 2.1). This made the application of any over-arching quality appraisal tool, unless it was extremely blunt (and therefore relatively meaningless) extremely difficult. Also, as discussed in Chapter 3, definitional ambiguities around notions of access and acceptability introduced almost insurmountable difficulties to quality appraisal: if it is unclear how these concepts are being defined, it is impossible to judge whether or not they have been researched adequately. To date, then, the evidence reviewed for question one has not been subject to any systematic quality appraisal system.

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 is in Appendix 5.

Data management and synthesis

The data extraction and analytical processes for the two questions (access and acceptability; outcomes of services/interventions) 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).

Further, in relation to the second question (on outcomes) we found two distinct types of evidence – that from randomised controlled trials (RCTs) and that from other comparative studies (predominantly before and after studies). Clearly, both the nature and the strength of the evidence these different methods can generate are very different and we therefore analysed and synthesised them separately.

Quantitative data

Included in the review were some studies that used psychometric scales or other quantitative tools to measure outcomes for service users. However, based on an initial reading of the literature, we came to the view that there would not be scope for any quantitative meta-analysis of the outcomes data due to the limitations of the evidence base and the variability of both research design and the services/interventions evaluated. This view did not change after we had extracted data from the included publications. We therefore used a narrative synthesis approach[10], albeit based on quantitative data. For some studies, however, we did carry out **additional** analysis. This was in places where the reported text and tables 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

All the material used for question one was subject to qualitative analysis (even where quantitative data were present) followed by narrative synthesis. The team was guided by the principles of working set out in the Economic and Social Research Council report on conducting narrative synthesis (Popay et al, 2006). Where quantitative data were present, the team fully extracted them but also summarised them into text; they were then analysed with other qualitative data. This approach allowed the development of a theoretical framework that guided the subsequent synthesis.

For both questions, we had hoped to be able to group the synthesised evidence in relation to specific population groups and/or service settings. In the event, this was possible in only limited circumstances for both questions. Where 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 Access to and acceptability of services and interventions for PMHPs and their families

Sixty-eight papers, related to 61 separate studies, were identified as being relevant to question one. Table 2.1 reports selected details of the studies including brief bibliographical details, the main aim of the research, methods of data collection, research participants, and the country of investigation. Further details about and discussion of these aspects of the studies is in Chapter 3. Full bibliographical details are in the reference sections at the end of this report.

As Table 2.1 shows, a relatively high proportion of studies used for this review question were UK-based. This is in some contrast to the elements of the two reviews (with the obvious exception of review one question one, where **only** UK studies were included). Overall, 20 of the 61 studies had been carried out in the UK, 25 in the USA, 10 in Australia, and the rest in Canada (1), Denmark (1), Greece (1) and various countries of Europe, including England.

Question two Outcomes of services and interventions for PMHPs and their families

Twelve randomised controlled trials (13 papers) and 25 other comparative studies (27 papers) were included in this section of the review. Findings from the RCTS and the other studies were synthesised separately and are reported, respectively, in chapters four and five.

Identifying single studies among the publications selected for inclusion in this part of the review was difficult, particularly in relation to two RCTS.

First, there was a stream of publications by Beardslee and colleagues about a psycho-educational intervention for PMHPs and their families, developed, implemented and evaluated in the USA. Careful reading of this material identified that there was, in fact, a single, formal evaluation (RCT) of this intervention, but with results published at various stages of sample formation. As a result, sample sizes varied from publication to publication. We confirmed this directly with the main author of the work.

Secondly, there were several publications from Cichetti and colleagues about a toddler and parent psychotherapy intervention. Again, careful reading made clear that there was a single RCT but that results had been published at different stages of sample formation and, therefore, with different sample sizes.

Table 2.1: Description of included studies that address access and/or acceptability

Author(s) and date	Main aim of research in relation to access and use of services	Basic research design and sample	Service/setting from which sample recruited and, where reported, sampling technique	Achieved sample size	MHP of parents represented in the research	Country
Studies concerned with accessing services						
Ackerson, 2003	To identify recurring issues and concerns among PMHPs which may inform service delivery	Unstructured and semi-structured interviews with parents	Consumer and family support groups and community mental health centres Purposive sampling	13 parents (12=mothers)	'Serious and persistent mental illness'	USA
Ackerson and Venkataraman, 2003	To compare and integrate what is currently known by experts in the field with regard to assessments and services for PMHPs and their families	Survey of experts who have written and conducted research on the topic of parenting with MHPs using telephone interviews	Academic disciplines of social work, psychiatry and psychology Snowball sampling	8 experts	Range	USA
Aldridge and Becker, 2003	To further understand the nature of young caring in the context of parental mental health, including family – professional relationships	Semi-structured interviews with young carers and parent with MHP	AMHS Purposive sampling	40 dyads	'Severe and enduring mental health problem'	England
Anderson, Robins, Greeno, Cahalane, Copeland and Andrews, 2006	To explore mothers' perceptions of their own distress and their children's problems, their treatment	Qualitative interviews with mothers whose children were using community MH services	Child Community Mental Health centres Consecutive sampling	127 mothers	Range	USA

Author(s) and date	Main aim of research in relation to access and use of services	Basic research design and sample	Service/setting from which sample recruited and, where reported, sampling technique	Achieved sample size	MHP of parents represented in the research	Country
	experiences, and views of the formal mental health delivery system					
Bassett, Lampe and Lloyd, 1999	To examine mothers' perceptions of mental health services and areas in need of improvement (part of an evaluation of a particular service)	Focus group with users (mothers); focus group and individual interviews non-users (mothers) of a service	'Living with under 5's' project (support for PMHPs and their children) Purposive sampling	Sample sizes for focus groups not stated 4 interviews	'A mental illness'	Australia
Bibou-Nakou, 2003	To identify the roles teachers could play in identifying children with a parent with MHP in need of support	Focus group discussions with teachers	Teachers attending in-service training on parental mental health issues Convenience sampling	120 teachers	Parents with mental health problems in general	Greece
Blanch, Nicholson and Purcell, 1998	To identify the needs of parents with MHP raising young children, to recommend ways of addressing their needs, to anticipate and overcome impediments to the implementation of suggested solutions	Public hearings attended by parents and by adult children who had had a PMHP	Statewide review of service needs and provision for PMHPs Convenience sampling	23 parents 6 MH providers 5 social service representatives	Any MHP	USA

Author(s) and date	Main aim of research in relation to access and use of services	Basic research design and sample	Service/setting from which sample recruited and, where reported, sampling technique	Achieved sample size	MHP of parents represented in the research	Country
Boyd, Diamond and Bourjolly, 2006	To explore mothers and practitioners views about a potential support service	Focus groups with mothers and with staff working in community MH agencies	Community Mental Health agencies Convenience sampling	18 mothers 10 MH providers	Depressed mothers	USA
Cardemil, Kim, Pinedo and Miller, 2005	To look at recruitment and retention of mothers to a support programme, and factor affecting recruitment and retention	Recruitment, enrolment and treatment retention rates. Interviews with mothers	Family Skills Coping Programme (depression prevention programme for low income Latina mothers)	137 mothers	‘At risk of depression’	USA
Cowling, 1996, 1999	To identify factors which discourage parents from seeking help and support	Parent and provider surveys; focus groups and interviews with parents	Providers: health, welfare , government and non-government agencies involved with parents with a psychiatric illness Parents: community MH services or psychosocial rehabilitation settings Purposive sampling	70 parents (survey or focus groups) 13 parents (interviews) 136 service providers	'Diagnosed psychotic disorder'	Australia

Author(s) and date	**Main aim of research in relation to access and use of services**	**Basic research design and sample**	**Service/setting from which sample recruited and, where reported, sampling technique**	**Achieved sample size**	**MHP of parents represented in the research**	**Country**
Cowling, Luk, Mileshkin and Birleson, 2004	To study parents' help-seeking and service use for their children	Structured interviews (including completion of measures) with parents	Community team teams and inpatient facilities Purposive sampling	61 parents	Users of community and inpatient MHS	Australia
Darlington,Feeney and Rixon, 2004 Darlington, Feeney and Rixon, 2005a	To examine structures and systems which support/hinder collaboration between child protection, adult MH and child MH services	Self-administered cross-sectional survey of practitioners (social work, mental health, health)	Child protection, adult and child MH (community and inpatient) services Purposive sampling	122 respondents reporting on 200 cases.	Parents with 'mental illness' (significant impairment) or 'mental health problems' (diminished abilities)	Australia
Darlington, Feeney and Rixon, 2005b	To supplement above research with depth accounts from staff on collaboration issues	Interviews with practitioners (social work and mental health)	Child protection, adult and child MH services Purposive sampling	17 child protection workers 14 adult MH workers 4 child MH workers	Parents with 'mental illness' (significant impairment) or 'mental health problems' (diminished abilities)	Australia
DeChillo, Matorin and Hallahan, 1987	To explore how/ whether parenting status and children's needs are explored and recorded for psychiatric inpatients patients	Interviews with inpatient social work staff and case note review	Inpatient Qualitative: purposive sampling	121 cases reviewed Size of interview sample not stated	Range Inpatients	USA

Author(s) and date	Main aim of research in relation to access and use of services	Basic research design and sample	Service/setting from which sample recruited and, where reported, sampling technique	Achieved sample size	MHP of parents represented in the research	Country
	To explore the nature of social workers' contacts with and on behalf of the children? To identify whether children in need of support are being provided with help		Quantitative: random stratified sampling			
Diaz-Caneja and Johnson, 2004	To explore mothers' views of the services they receive	Qualitative interviews with mothers	Community Mental Health teams Purposive sampling	22 mothers	Schizophrenia, bipolar affective disorder, and severe depression with psychotic symptoms	England
Elliot, 1992	To look at what support was available to children of parents with mental health problems and what support the young carers would have wanted	Interviews with ex-young carers of parents with mental health problems	Ex young carers Convenience sampling	9 ex-young carers	Range	England
Feldman, Stiffman and Jung, 1987	To explore use of formal support services by families	Semi-structured interviews with parents	Children using recreational programme for 'at risk children of mentally ill parents' Convenience sampling	'178 families'	Parents 'diagnosed as mentally ill	USA

Author(s) and date	**Main aim of research in relation to access and use of services**	**Basic research design and sample**	**Service/setting from which sample recruited and, where reported, sampling technique**	**Achieved sample size**	**MHP of parents represented in the research**	**Country**
Finkelstein, Rechberger, Russell, VanDeMark, Noether, O'Keefe, Gould, Mockus and Rael, 2005	To evaluate a parent and child support intervention, including looking at barriers to participation	Evaluation of support intervention for mother and children	Project supporting women with a history of physical or sexual abuse, substance abuse and mental illness Convenience sampling	115 children	Histories of sexual and/or physical abuse, substance abuse AND mental illness	USA
Fudge and Mason, 2004	To identify what should be included in practice guidelines for services working with children of parents with a mental illness	Focus groups and peer interviews with children and young people	COPMI (Children of Parents with a Mental Illness) support programme	33 children (7-12 year olds) 25 young people (13-20 year olds)	Not specified	Australia
Gilbert, Legg, Irons, Olsen and Palmer, 2002	To identify the support needs of children parents or other carers suffer from MH problems, and experiences of services	Focus groups with young carers and ex-young carers	AMHS Convenience sampling	7 young carers 7 ex-young carers	Not specified	England
Gillam, Crofts, Fadden and Corbett, 2003	To provide insight into interface and collaborative practices between CAMHS, AMHS and children’s services, and factors affecting those processes	Participant observation in CAMHS, survey of AMHS workers and a survey of children's services workers	CAMHS, AMHS, children’s services	1 CAMHS 28 AMHS workers 27 children’s services workers	Range	England

Author(s) and date	**Main aim of research in relation to access and use of services**	**Basic research design and sample**	**Service/setting from which sample recruited and, where reported, sampling technique**	**Achieved sample size**	**MHP of parents represented in the research**	**Country**
Gopfert, Harrison and Mahoney, 1999	To establish whether services for adults experiencing MHP also met the needs of their family network	Qualitative interviews with parents (with MHP or partner), focus groups with children	AMHS Convenience sampling	13 parents 3 children	Range	England
Green et al, 1997	To explore families views of AMH services	Semi-structured interviews with mothers, children and a nominated (referring or key) professional	AMH services Purposive sampling	18 mothers 10 children 19 referring/key professional	Range (severe)	England
Gross and Semprevivo, 1989	To describe the parenting issues recorded in charts of hospitalised mentally ill mothers	Review of inpatient charts and notes re in-patients (mothers)	Inpatient psychiatric wards Purposive sampling	21 charts reviewed	Inpatient Range	USA
Grunbaum and Gammeltoft, 1993	To study the functioning and shortcomings of casework performed by local social agencies to assist the children of a group of schizophrenic mothers	Retrospective analysis of social agencies' casework, examination of inpatient case-notes; consultation with child specialists and other health professionals	Social agencies	11 children's case notes	Inpatients. 'Diagnosed as schizophrenic'	Denmark
Handley, Farrell, Josephs, Hanke and Hazelton, 2001	To identify types of support perceived to be needed by parents, children and service providers; and to identify the	Survey of staff and users of statutory mental health service in a governnment region. Follow-up interviews/focus groups	Adult mental health services Purposive sampling	74 staff 29 parents (q'aire) 8 parents	'Most of the parents interviewed had major affective disorder'	Australia

Author(s) and date	Main aim of research in relation to access and use of services	Basic research design and sample	Service/setting from which sample recruited and, where reported, sampling technique	Achieved sample size	MHP of parents represented in the research	Country
	current level of support available with particular emphasis on identifying service gaps	with parents and children		(interviews/ focus groups) 4 children (interviews/ focus groups)		
Hearle, Plant, Jenner, Barkla and McGrath, 1999	To explore support needs of parents with a psychotic disorder, child care use and barriers to accessing child care services	Semi-structured questionnaire to parents using inpatient and outpatient services	Community MH services and extended care psychiatric hospital Purposive sampling	124 parents	'Individuals with a chart diagnosis of a psychotic disorder'	Australia
Heneghan, Mercer and DeLeone, 2004	To explore maternal beliefs and perceptions about discussing the parenting and depressive symptoms with child's paediatrician	Focus groups with mothers	Community and hospital based paediatric practices Purposive sampling	44 mothers	Depressive symptoms	USA
Heneghan, Morton and DeLeone, 2006	To assess paediatricians' beliefs about discussing maternal depressive symptoms; to identify barriers paediatricians face in discussing maternal depression; and to identify strategies paediatricians use to assist mothers	In-depth telephone interviews with 23 primary care paediatricians	Primary paediatric health care Convenience sampling	23 paediatricians	Depressive symptoms	USA

Author(s) and date	Main aim of research in relation to access and use of services	Basic research design and sample	Service/setting from which sample recruited and, where reported, sampling technique	Achieved sample size	MHP of parents represented in the research	Country
Hetherington and Baistow, 2001 Hetherington, 2001	Inter-country study into the responses of mental health and child welfare systems to children who have a mentally ill parent	Focus groups with AMH and CMH professionals and child welfare professionals	AMH, CMH and child welfare Expert sampling	Not stated	MHP in general	Europe including England
Hinden, Biebel, Nicholson and Mehnert, 2002 Hinden, Biebel, Nicholson and Mehnert, 2005	To explore views and experiences of service users and staff	Interviews with parents, care workers and case managers	The Invisible Children's Project (private agency providing intensive case management services for parents where family at high risk for child custody loss) Purposive sampling	9 parents (representing 8 families) 6 practitioners	Not specific to diagnostic groups rather: mental illness and where family at highest risk for child custody loss	USA
Hugman and Phillips, 1993	To describe parent's experiences of MH difficulties and its impact on parenting and their experiences of professional support with regard parenting	Interviews with users of MH facilities	Outpatient and community AMHS Convenience sampling	24 parents	'All had formal psychiatric diagnoses'	England
Hussain and Gerrard, 2001	To explore service users and practitioners views of a support service and access to and use of other MH services	Evaluation of a support service for Asian women with MHP using questionnaires completed by professionals and users	Voluntary sector support service for Asian women with MHP	Not stated	'MHP beyond the scope of the average primary health care team'	England

Author(s) and date	Main aim of research in relation to access and use of services	Basic research design and sample	Service/setting from which sample recruited and, where reported, sampling technique	Achieved sample size	MHP of parents represented in the research	Country
Iddamalgoda and Naish, 1995	To looking at whether an NHS Trust is meeting the needs of children of parents with MHP's	Semi-structured interviews with professionals (AMHS, child health, social work), service users, review of case notes, postal survey of CPNS	Professionals: AMHS, child health and social work Case notes: Outpatient and inpatient MH services Postal survey: community psychiatric nurses	14 AMHS staff 10 child health service staff 13 community child health staff 2 social work staff	Range: inpatient and outpatients	England
Kearney, Levin and Rosen, 2000	To map approaches to working with children and families where the adults have MHP or substance misuse problems; to identify effective practice and management and the structures that facilitate and mitigate against it; to identify the composite skills and expertise required for effective assessment and support of families	Interviews with senior managers and frontline staff working in social care	Social services Purposive sampling	84 managers and staff	Range	England and Wales

Author(s) and date	**Main aim of research in relation to access and use of services**	**Basic research design and sample**	**Service/setting from which sample recruited and, where reported, sampling technique**	**Achieved sample size**	**MHP of parents represented in the research**	**Country**
Libby, Orton, Barth, Webb, Burns, Wood and Spicer, 2006	To assess disparities in access to health care by comparing experiences of American Indian (AI) parents and those who are White, Black and Hispanic	Uses a subsample of a national survey of children involved in child welfare systems, looking at assessment and referral history and service use	National Study of Child and Adolescent Wellbeing (NSCAW) Purposive sampling	3,425 children	Range	USA
Manderson and McCune, 2004	Access	Retrospective review on female inpatient case notes	Inpatient psychiatric units Random sampling	100 sets of case notes	Inpatients	Northern Ireland
Maybery and Reupert, 2006	To identify the barriers adult MH workers face in discussing parenting issues with adult patients and working with their children	Interviews with mental health and welfare workers, and small scale survey using structured questionnaire	Adult MH and family support services Convenience sampling	92 workers	Parental mental health problems in general	Australia
McCue Horwitz, Kelleher, Stein, Stofer-Isser et al, 2007,	To identify factors which act as barriers to children and mothers accessing support/intervention services	Cross-sectional sample survey of paediatricians	Paediatricians Convenience sampling	687 paediatricians	Maternal depression	USA
Montgomery, Tompkins and Forchuk, 2006	To describe the parenting experiences of mothers with serious mental illness (SMI), including support needs and service experiences	Unstructured interviews with mothers	AMHS Purposive sampling	20 mothers	'Major mental illness'	Canada

Author(s) and date	Main aim of research in relation to access and use of services	Basic research design and sample	Service/setting from which sample recruited and, where reported, sampling technique	Achieved sample size	MHP of parents represented in the research	Country
Montoliu Tamarit and Yin-Har, 1999	To explore children's access to support services occurring through mothers' admission to an inpatient unit	Retrospective review of case notes of women	Inpatient psychiatric units Consecutive sampling	100 sets of case notes	Inpatients	England
Mowbry, Schwartz, Bybee, Spang, Rueda-Riedle and Oyserman, 2000	To describe parents experiences of services and unmet needs	Structured interviews with mothers who are AMHS users (including inpatients)	Community MH services and inpatient psychiatric units	379 mothers	'Psychiatric disorder of more than one year's duration'	USA
Needlman, Walders, Kelly, Higgins, Sofranko and Drotar, 1999	To assess take-up of referrals to MHS by mothers screened as having a MHP, and the factors associated with accepting referral and keeping appointments	Data collected by post-referral 'follow-up' calls to mothers	Paediatric primary care clinics	130 mothers	Depression	USA
Nicholson, Sweeney and Geller, 1998 Nicholson and Henry, 2003	To explore mothers' perceptions of their needs and the needs of their children and their preferences regarding services and relationships with providers	Focus groups with mothers and AMH case managers	AMH case management services Random sampling	42 mothers 55 case managers	'Severe mental illness'	USA
Olson, Dietrich, Prazar and Hurley, 2006	To explore how paediatricians and mothers respond to depression screening information	Service-based audit and tracking of outcomes of screening for mental health problems among mothers	Paediatric practices Consecutive sampling	1,398 maternal screenings	Depression	USA

Author(s) and date	Main aim of research in relation to access and use of services	Basic research design and sample	Service/setting from which sample recruited and, where reported, sampling technique	Achieved sample size	MHP of parents represented in the research	Country
Shachnow, 1987	To explore whether mothers' inpatient admission results in better meeting of children's needs through access to new support services	Interviews with patient, 'well' parent and child(ren)	Inpatient psychiatric unit	22 patients 21 well parents 36 children	Inpatients	USA
Sheppard, 2001	To explore how social workers worked with depressed mothers? To explore MH service involvement and the role of social workers in accessing this support To explore mothers' experience of social work support	Interviews with mothers and their social workers	Social services Purposive sampling	67 mothers and their social workers	Depression	England
Singer, Tang and Berelowitz, 2000	To establish what input children of PwMHP had received from adult MHS, social services, education and other agencies	Interviews with mothers and children	Outpatient and community AMHS Convenience sampling	12 mothers 14 children	Range. Current users of AMHS	England
Slattery, 2006	To explore the experiences and support needs of mothers with severe and enduring mental illness	Focus groups and postal survey of mothers	Community MH services Purposive sampling	54 mothers	'Severe and enduring mental illness'	England

Author(s) and date	Main aim of research in relation to access and use of services	Basic research design and sample	Service/setting from which sample recruited and, where reported, sampling technique	Achieved sample size	MHP of parents represented in the research	Country
Sleath, Jackson, Thomas, Galloway, Dumain, Thorpe, Rollins and Morrissey, 2006	To explore how African American race was related to the use of antidepressants and counselling among homeless depressed women; and whether depressed homeless women felt they needed MH services but did not receive them	Interviews with mothers	Mothers using homeless shelters Purposive sampling	92 mothers	'Major depression'	USA
Stanley, Penhale, Riordan, Barbour and Holden, 2003a, 2003b	To examine interagency working in cases where there are child protection concerns and PMHPs. To explore parents' views as service users and their needs (met and unmet)	Postal survey of practitioners (mental health and child protection) Interviews with mothers	Practitioner: various agencies and settings where encounter PMH and child protection issues. Purposive sampling Mothers: via 'key informants in health and social services' Convenience sampling	500 practitioners 11 mothers	'Enduring mental health difficulties'	England
Stormont, Craig, Atakan, Loader and Williams, 1997	To explore parents views about their child's support needs	Structured interviews with parents admitted to acute psychiatric wards	Inpatient psychiatric wards Consecutive sampling	19 parents	Inpatients (majority psychotic)	England

Author(s) and date	Main aim of research in relation to access and use of services	Basic research design and sample	Service/setting from which sample recruited and, where reported, sampling technique	Achieved sample size	MHP of parents represented in the research	Country
Thomas and Kalucy, 2002	To describe practical (managing family needs) issues associated with hospital admission; to explore parents views of their children's support needs and how need should be met	Semi-structured interviews with parents	Inpatient and outpatient MH services and community groups Purposive sampling	35 parents	Severe (bipolar disorder, major depressive disorder, schizo-affective disorder, schizophrenia, personality disorder)	Australia
Wang and Goldschmidt, 1996	To look at psychiatric inpatients' views of professionals, particularly in terms of improving cooperation between parents and professionals in order to better meet of patients' children	Semi-structured interviews with inpatients with children 0-10 years olds	Inpatient psychiatric units Consecutive sampling	50 parents	Range. All inpatients	Denmark
Studies concerned with using services						
Alder, 2005	To establish how well a service is achieving its aims and meeting clients' needs	Evaluation of a outreach support service for mothers with MHPs	The Peace Outreach Project Purposive sampling	13 mothers	Schizophrenia, depression, post-natal depression, bi-polar disorders and personality disorder	England

Author(s) and date	Main aim of research in relation to access and use of services	Basic research design and sample	Service/setting from which sample recruited and, where reported, sampling technique	Achieved sample size	MHP of parents represented in the research	Country
Anderson, Robins, Greeno, Cahalane, Copeland and Andrews, 2006	To explore mothers' perceptions of their own distress and their children's problems; their treatment experiences; and views of the formal mental health delivery system	Qualitative interviews with mothers whose children were using community MH services	Child Community Mental Health centres Consecutive sampling	127 mothers	Range	USA
Baydar, Reid and Webster-Stratton, 2003	To explore the impact of mental health risk factors on attendance and engagement with a parent training programme	Evaluation of a parenting support intervention	The Incredible Years Training Program (parenting support intervention) Random sampling	482 mothers	Low income mothers at risk of mental health problems	USA
Beeber, Holditch-Davis, Belyea, Funk and Canuso, 2004	To explore recruitment and engagement in the intervention, and to access mothers views about the acceptability of the intervention	Evaluation of an intervention	Early head Start (intervention for mothers with depressive symptoms who do not typically seek traditional MHS) Random sampling	16 mothers (8 receiving intervention, 8 usual care/ waiting list)	Depressed mothers	USA
Boyd, Diamond and Bourjolly, 2006	To explore mothers and practitioners views about a potential support service	Focus groups with mothers and with staff working in community MH agencies	Community Mental Health agencies Convenience sampling	18 mothers 10 MH providers	Depressed mothers	USA

Author(s) and date	Main aim of research in relation to access and use of services	Basic research design and sample	Service/setting from which sample recruited and, where reported, sampling technique	Achieved sample size	MHP of parents represented in the research	Country
Cardemil, Kim, Pinedo and Miller, 2005	To look at recruitment and retention of mothers to a support programme, and factor affecting recruitment and retention	Recruitment, enrolment and treatment retention rates. Interviews with mothers	Family Skills Coping Programme (depression prevention programme for low income Latina mothers)	137 mothers	‘At risk of depression’	USA
Diaz-Caneja and Johnson, 2004	To explore mothers’ views of the services they receive	Qualitative interviews with mothers	Community Mental Health teams Purposive sampling	22 mothers	Schizophrenia, bipolar affective disorder, and severe depression with psychotic symptoms	England
Finkelstein, Rechberger, Russell, VanDeMark, Noether, O'Keefe, Gould, Mockus and Rael, 2005	To evaluate a parent and child support intervention, including looking at barriers to participation	Evaluation of support intervention for mother and children	Project supporting women with a history of physical or sexual abuse, substance abuse and mental illness Convenience sampling	115 children	Histories of sexual and/or physical abuse, substance abuse AND mental illness	USA
Fudge and Mason, 2004	To identify what should be included in practice guidelines for services working with children of parents with a mental illness	Focus groups and peer interviews with children and young people	COPMI (Children of Parents with a Mental Illness) support programme	33 children (7-12 year olds) 25 young people (13-20 year olds)	Not specified	Australia

Author(s) and date	Main aim of research in relation to access and use of services	Basic research design and sample	Service/setting from which sample recruited and, where reported, sampling technique	Achieved sample size	MHP of parents represented in the research	Country
Garley, Gallop, Johnston and Pipitone, 1997	To explores the needs, children of parents with a mood disorder in order to inform service development	Focus group with children	Adult outpatient MHS Purposive sampling	6 children	'Parent or family had been assessed or treated for a mood disorder'	Canada
Green, 1997	To explore families views of AMH services	Semi-structured interviews with mothers, children and a nominated (referring or key) professional	AMH services	18 mothers 10 children 19 referring/ key professional	Range (severe)	England
Grunbaum and Gammeltoft, 1993	To study of the functioning and shortcomings of casework performed by local social agencies to assist the children of a group of schizophrenic mothers	Retrospective analysis of social agencies' casework, examination of inpatient case-notes; consultation with child specialists and other health professionals	Social agencies	11 children's case notes	Inpatients. 'Diagnosed as schizophrenic'	Denmark
Handley, Farrell, Josephs, Hanke and Hazelton, 2001	To identify types of support perceived to be needed by parents, children and service providers; and to identify the current level of support available with particular emphasis on identifying service gaps	Survey of staff and users of statutory mental health service in a governnment region. Follow-up interviews/focus groups with parents and children	Adult mental health services Purposive sampling	74 staff 29 parents (q'aire) 8 parents (interviews/ focus groups) 4 children (interviews/ focus groups)	'Most of the parents interviewed had major affective disorder'	Australia

Author(s) and date	Main aim of research in relation to access and use of services	Basic research design and sample	Service/setting from which sample recruited and, where reported, sampling technique	Achieved sample size	MHP of parents represented in the research	Country
Hanrahan, McCoy and Cloninger, 2005	To explore levels of engagement in a project and factors affecting engagement	Retrospective review of case notes	Threshold Mothers' Project (provides psychosocial rehabilitation and intensive care management)	24 case notes (mothers and their children)	Range (severe)	USA
Hawes and Cottrell, 1999	To identify the practical consequences of mothers' admissions to acute psychiatric wards	Semi-structured interviews with mothers and case note review	Acute psychiatric wards Consecutive sampling	26 mothers (interview) 51 mothers (case note review)	Inpatients (psychotic and non-psychotic)	England
Hinden, Biebel, Nicholson and Mehnert, 2002 Hinden, Biebel, Nicholson and Mehnert, 2005	To explore views and experiences of service users and staff	Interviews with parents, care workers and case managers	The Invisible Children's Project (private agency providing intensive case management services for parents where family at high risk for child custody loss) Purposive sampling	9 parents (representing 8 families) 6 practitioners	Not specific to diagnostic groups rather: mental illness and where family at highest risk for child custody loss	USA
Hugman and Phillips, 1993	To describe parent's experiences of MH difficulties and its impact on parenting and their experiences of professional support with regard parenting	Interviews with users of MH facilities	Outpatient and community AMHS Convenience sampling	24 parents	'All had formal psychiatric diagnoses'	England

Author(s) and date	Main aim of research in relation to access and use of services	Basic research design and sample	Service/setting from which sample recruited and, where reported, sampling technique	Achieved sample size	MHP of parents represented in the research	Country
Hussain and Gerrard, 2001	To explore service users and practitioners views of a support service and access to and use of other MH services	Evaluation of a support service for Asian women with MHP using questionnaires completed by professionals/users	Voluntary sector support service for Asian women with MHP	Not stated	'MHP beyond the scope of the average primary health care team'	England
Iddamalgoda and Naish, 1995	To looking at whether an NHS Trust is meeting the needs of children of parents with MHP's	Semi-structured interviews with professionals (AMHS, child health, social work), service users, review of case notes, postal survey of CPNS	Professionals: AMHS, child health and social work Case notes: Outpatient and inpatient MH services Postal survey: community psychiatric nurses	14 AMHS staff 10 child health service staff 13 community child health staff 2 social work staff	Range: inpatient and outpatients	England
Montgomery, Tompkins and Forchuk, 2006	To describe the parenting experiences of mothers with serious mental illness (SMI), including support needs and service experiences	Unstructured interviews with mothers	AMHS Purposive sampling	20 mothers	'Major mental illness'	Canada
Mowbray, Scwartz, Bybee, Spang, Rueda-Riedle and Oyserman, 2000	To describe parents experiences of services and unmet needs	Structured interviews with mothers who are AMHS users (including inpatients)	Community MH services and inpatient psychiatric units Purposive sampling	379 mothers	'Psychiatric disorder of more than one year's duration'	USA

Author(s) and date	**Main aim of research in relation to access and use of services**	**Basic research design and sample**	**Service/setting from which sample recruited and, where reported, sampling technique**	**Achieved sample size**	**MHP of parents represented in the research**	**Country**
Needlman, Walders, Kelly, Higgins, Sofranko and Drotar, 1999	To assess take-up of referrals to MHS by mothers screened as having a MHP, and the factors associated with accepting referral and keeping appointments	Prospective, uncontrolled intervention study of take-up of referral to MH services by mothers, data collected by post-referral 'follow-up' calls to mothers	Paediatric primary care clinics	130 mothers	Depression	USA
Nicholson, Sweeney and Geller, 1998 Nicholson and Henry, 2003	1. Mothers' perceptions of their needs and the needs of their children 2. Mothers' preferences regarding services and relationships with providers	Focus groups with mothers and AMH case managers	AMH case management services	42 mothers 55 case managers	'Severe mental illness'	USA
Schwab, Clarke and Drake, 1991	Looking at service users and providers views and experiences of the service	Ethnographic study of clients and mental health centre staff members	Community AMHS	Not stated	Not specified: mental health problems plus substance abuse	USA
Shachnow, 1987	To explore whether mothers' inpatient admission results in better meeting of children's needs through access to new support services	Interviews with patient, 'well' parent and child(ren)	Inpatient psychiatric unit	22 patients 21 well parents 36 children	Inpatients	USA

Author(s) and date	**Main aim of research in relation to access and use of services**	**Basic research design and sample**	**Service/setting from which sample recruited and, where reported, sampling technique**	**Achieved sample size**	**MHP of parents represented in the research**	**Country**
Sheppard, 2001	To explore how social workers worked with depressed mothers? To explore MH service involvement and the role of social workers in accessing this support To explore mothers' experience of social work support	Interviews with mothers and their social workers	Social services Purposive sampling	67 mothers and their social workers	Depression	England
Singer, Tang and Berelowitz, 2000	To establish what input children of PwMHP had received from adult MHS, social services, education and other agencies	Interviews with mothers and children	Outpatient and community AMHS Convenience sampling	12 mothers 14 children	Range Current users of AMHS	England
Slattery, 2006	To explored the experiences and support needs of mothers with sever and enduring mental illness	Focus groups and postal survey of mothers	Community MH services Purposive sampling	54 mothers	‘Severe and enduring mental illness’	England

Author(s) and date	Main aim of research in relation to access and use of services	Basic research design and sample	Service/setting from which sample recruited and, where reported, sampling technique	Achieved sample size	MHP of parents represented in the research	Country
Stanley, Penhale, Riordan, Barbour and Holden, 2003a, 2003b	To examine the extent to which different professionals work together in cases where there are child protection concerns within a family where there is a parent with MHPs To explore parents' experiences as service users and their perceived needs (met and unmet)	Postal survey of practitioners (mental health and child protection) Interviews with mothers	Practitioner: various agencies and settings where encounter PMH and child protection issues. Purposive sampling Mothers: via 'key informants in health and social services' Convenience sampling	500 practitioners 11 mothers	'Enduring mental health difficulties'	England
Swartz, Zuckoff, Frank, Spielvogle, Shearm Fleming and Scott, 2006	Open label pilot study to evaluate the feasibility and acceptability of delivering this intervention	Attendance rates and a semi-structured 'exit interview' of users of a pilot service for mothers	Service providing Brief Interpersonal Psychotherapy Convenience sampling	17 mothers	Depression	USA
Thomas and Kalucy, 2002	To describe practical (managing family needs) issues associated with hospital admission; to explore parents views of their children's support needs and how need should be met	Semi-structured interviews with parents	Inpatient and outpatient MH services and community groups Purposive sampling	35 parents	Severe (bipolar disorder, major depressive disorder, schizo-affective disorder, schizophrenia, personality disorder)	Australia

Author(s) and date	Main aim of research in relation to access and use of services	Basic research design and sample	Service/setting from which sample recruited and, where reported, sampling technique	Achieved sample size	MHP of parents represented in the research	Country
Wang and Goldschmidt, 1996	To look at psychiatric inpatients' views of professionals, particularly in terms of improving cooperation between parents and professionals in order to better meet of patients' children	Semi-structured interviews with inpatients with children 0-10 years olds	Inpatient psychiatric units Consecutive sampling	50 parents	Range. All inpatients	Denmark

In both cases, after discussion, the York research team decided to include in the review only those papers from these two trials that had been published most recently and therefore had the most complete numbers of trial participants.

Two papers reporting results from an RCT of cognitive behavioural therapy for children whose parents had depression (Clarke et al, 2001, 2002) were included as separate studies. This was because they reported results from separate **arms** of a single trial that had separately randomised different sub-groups of children after initial screening of their own mental health status.

Table 2.2 reports selected details of the RCTs and Table 2.3 selected details of the non-RCT studies included for question two. These cover brief bibliographical details, some details of the intervention being evaluated, 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 detail about and discussion of most of these variables is included in Chapters 4 and 5 and full bibliographical details are in the reference section at the end of this report.

As Tables 2.2 and 2.3 show, studies from the USA dominate the literature in this area. Eight out of 12 of the RCTs and 16 of the 25 non-RCT studies had been carried out in the USA. Only one RCT and five non-RCT studies were UK-based.

Quality of included studies

As discussed earlier we carried out no formal quality assessment of the material included for question one.

The results of the quality assessment for question two are summarised in Tables 2.4 and 2.5.

Five of the 12 RCTs (Bayder et al, 2003; Cichetti et al, 2001; Toth et al, 2006; Beeber et al, 2004; Clarke, 2001; 2002) scored the maximum of three points on the truncated Jadad criteria. Four (Butler et al, 2000; Sanders et al, 2000; Peden et al, 2005; Nickel et al, 2005) scored only one point. All 12 studies were described as randomised but Butler et al (2000), Sanders et al (2000), Peden et al (2005), Nickel et al (2005) gave insufficient information to determine how randomisation was carried out and, therefore, whether or not the studies were appropriately described as randomised.

Table 2.2: Description of included randomised controlled trials of services or interventions for PMHPs and their families

Author and date	Nature of service or intervention	Who for	Who delivers	Mental health problem	Study participants (numbers randomised[1]) and socio-economic status[2]	Country
Baydar et al, 2003	Parenting training programme plus Headstart	Low income mothers	Certified parenting clinic leader puls Headstart family service worker	'At risk' for maternal mental health problems	Intervention – 607 66% white Control – 275 56% white	USA
Beardslee et al, 2003	Clinician-facilitated psycho-educational intervention	Parents and children aged 8-15	Psychologists, social workers, nurses – all specifically trained	Parental depression	Clinician intervention: 59 families – 106 parents, 78 children Lecture intervention: 46 families – 84 parents, 60 children *Both groups at final follow-up:* *94% white* *78% mothers with parental mood disorder* *17% single parent* *52% annual family income $65,000 or more* *64% of families in top two SES categories*	USA
Beeber et al, 2004	Depressive symptom intervention	Mothers in Early Headstart programmes with children 6 weeks to 30m	Master's 'prepared' mental health nurses	Maternal depression	Intervention – 8 Control – 8 Both groups: 14/16 not married 6/16 white Average years of schooling - 11 11/16 in paid work Average annual household income: $11,642	USA

Author and date	Nature of service or intervention	Who for	Who delivers	Mental health problem	Study participants (numbers randomised[1]) and socio-economic status[2]	Country
Butler et al, 2000	Video-based psycho-educational intervention	Families where at least one parent has depression and there is at least one child aged 7-12	Self-administered	Parental depression	Intervention: 40 families Waiting list control: 34 families Total of 76[3] depressed parents: 93% white 78% female 24% single parent 78% in paid work 55% college/graduate education	USA
Clarke et al, 2001	Cognitive behavioural therapy	'At risk' children aged 13-18 of depressed parents	Master's level therapists	Parental depression	Intervention – 45 *22/40 girls* *31/40 white* *Control– 49* *31/47 girls* *47/49 white*	USA
Clarke et al, 2002	As above	Depressed children aged 12-18 of depressed parents	As above	Parental and child depression	Intervention – 41 Children: 63% girls Parents: 78% mothers 3% minority community 78% married 23% college graduate 75% employed Control – 47 Children: 75% girls Parents: 87% mothers 6% minority community 77% married 23% college graduate 75% employed	USA

Author and date	Nature of service or intervention	Who for	Who delivers	Mental health problem	Study participants (numbers randomised[1]) and socio-economic status[2]	Country
Nickel et al, 2005	In-patient, psychiatric psychotherapeutic treatment in mother and child ward	Mothers aged 20-30 with 1 or 2 children aged 5-12	Psychiatrists and psychotherapists	Maternal depression	Admitted with child – 21 9/21 single parent 6/21 'homemaker' 6/21 blue collar 9/21 white collar Admitted without child – 22 8/22 single parent 7/22 'homemaker' 7/22 blue collar 8/22 white collar	Germany
Peden et al, 2005	Cognitive behavioural therapy	Low income single mothers living with at least one child 2-6 years	Master's educated psychiatric nurses experience in leading groups	'At risk' for maternal depression	Intervention – 62 Control – 74 Both groups: 52% white 55% some post-secondary education 57% in paid work 80% annual household income $15,000 or less 42% divorced or separated, remainder never married	USA
Sanders et al, 2000	Cognitive behavioural therapy plus behavioural family intervention (CBFI)	Mothers with children with behavioural problems	Therapists trained in the intervention – clinical psychologists, trainee clinical psychologists or others with clinical experience with children and families	Maternal major depression	CBFI – 23 8/23 single parent Socio-demographic disadvantage index = 1.64 (SD 1.26) Behavioural family intervention only – 24 7/24 single parent Socio-demographic disadvantage index = 1.56 (SD 1.06)	Australia

Author and date	Nature of service or intervention	Who for	Who delivers	Mental health problem	Study participants (numbers randomised^1) and socio-economic status^2	Country
Toth, 2006 Cichetti, 2000	Toddler Parent Psychotherapy	Mothers with child aged c. 18m	Master's or PhD level therapists	Maternal major depression	Depressed intervention group – 66 15% not married Depressed controls – 64 20% not married Non-depressed controls – 68 2% not married All three groups: 93% white 73% in top two SES categories 55% college graduates	USA
Tritt et al, 2004	In-patient, psychiatric psychotherapeutic treatment in mother and child ward	Mothers aged 20-35 with 1 or 2 children aged 5-12	Not stated explicitly	Maternal generalised anxiety disorder	Admitted with child – 16 *7/15 single parent* *9/15 'housewife'* *4/15 blue collar* *1/15 white collar* *Admitted without child – 17* *6/14 single parent* *7/14 'housewife'* *4/14 blue collar* *3/14 white collar*	Germany

Author and date	Nature of service or intervention	Who for	Who delivers	Mental health problem	Study participants (numbers randomised[1]) and socio-economic status[2]	Country
Verduyn et al, 2003	Cognitive behavioural therapy and psycho-education	Mothers with pre-school children with behaviour problems	Clinical psychologists with support from nursery nurses	Maternal clinical depression	Intervention – 47 26% single parent 68% education to 16 years 81% not in paid work Placebo control – 44 20% single parent 84% education to 16 years 82% not in paid work No treatment control – 28 15% single parent 69% education to 16 years 86% not in paid work	UK

1. The number of subjects randomised was not always reported. Figures in italics are for numbers who participated in research.
2. Where reported in the papers we extracted data on sex, age, ethnicity, working status, income, education, and overall socio-economic status. Reporting varied substantially and details were not always given for the intervention and control groups separately. Where reported in the papers, details are given for the samples randomised. In some papers, details were given only for samples actually studied or followed up; these are reported in italics.
3. In two families, two parents were depressed.

Abbreviations

BDI Beck	Depression Inventory
DIS-III-R	Diagnostic Interview Schedule III-R
SCI	Structured Clinical Interview
DSM-III-R	Diagnostic and Statistical Manual of Depressive Disorders (3rd edition, revised)
DSM IV	Diagnostic and Statistical Manual of Depressive Disorders (4th edition)
ICD	International Classification of Disease
CES-D	Center for Epidemiologic Studies – Depression Scale
PMHPs	Parents with mental health problems
SES	Socio-economic status

Table 2.3: Description of non-RCT studies of the impact of services or interventions for PMHPs and their families

Study	Nature of service or intervention	Who for	Who delivers	Mental health problem	Study participants	Study design	Country
Bogard et al, 1999	Shelters for homeless families	Homeless mothers	Varied from shelter to shelter	MHP not a criterion for inclusion in study	340 initially recruited, 298 women interviewed at wave 1, 225 women at wave 2 12% white 85% lone parent 17% in paid work in last month 32% some college or technical education	Observational, longitudinal study with comparative data	USA
Brownrigg et al, 2004 Place et al, 2002	Psycho-education intervention for children and parents	Children (7-14) of parents with MHP and the parents	Social work and nurse workers experienced working with children with MHPs	Parental significant depression	24 No socio-economic details given	Single group, before and after study	UK
Brunette et al, 2004	Integrated family treatment	Parents with severe psychiatric difficulties and their families	Family specialist clinician	Parental severe psychotic or mood disorder	8 8/8 white 5/8 high school or graduate education 3/8 lone parent Median monthly income per child in home $935	Single group, before and after study	USA
Cowell et al, 2000	Problem solving nursing intervention	Mexican American parents and children of elementary school age	School nurse and nursing students	Maternal risk of MHP	8 mothers, 17 children No other socio-economic details given	Single group, before and after study	USA

Study	Nature of service or intervention	Who for	Who delivers	Mental health problem	Study participants	Study design	Country
Not given 2003 FSS/PACE programme	Family support service – multi-component	Parents with MHPs and their children under 18	Clinical social workers (case managers)	Various, iIncludes MDD, bipolar disorder, schizophrenia, GAD, PTSD, dysthymia, OCD	Not clear Of 80 adults served since programme began: 60/80 white 'Most' live in own homes or apartments	Single group, descriptive programme evaluation	USA
Croake and Kelly, 1985	Adlerian Family Therapy	Fathers with MHPs and their families with at least one 'school age' child at home	Family therapist	Paternal schizophrenia or depression	60 families No socio-economic details given	Single group, before and after study but with some comparative data	USA
Free et al, 1996	Psychotherapy	Mothers of pre-school children	Not recorded	Depression - unipolar and bipolar	43 depressed mothers who had received psychotherapy 10 depressed mothers who had not received psychotherapy 31 mothers without psychiatric diagnosis or psychotherapy All three groups: 85% white 'Predominantly middle to upper-middle class' 'Most' mothers were high school or college educated	Secondary analysis of data from depressed sub-groups in large survey	USA

Study	Nature of service or intervention	Who for	Who delivers	Mental health problem	Study participants	Study design	Country
Hanrahan et al, 2005	Care management and problem solving	Homeless mothers with MHPs and their children (mean age 6 years)	Care managers Psychiatrist	Includes schizophrenia, other psychotic disorders, major depression, bipolar disorder, dysthymia, adjustment disorder	24 mothers, 43 children 17% white 'Less than half' completed high school 'Two-thirds' had never been married None were in paid work	Single group, retrospective chart review with before and after data	USA
Hawes and Cottrell, 1999	Psychiatric hospital admission	Mothers but exploring impact on children aged 0-16 years	Not stated	Psychotic and non-psychotic conditions not otherwise described	26 interviewed 25 data from case notes only Interview group: 15/26 white 9/26 lone parent Case note group: 10/25 white 10/25 lone parent 'Few' in either group in paid work	Two group, descriptive study, supplemented by record review	UK
Kendall and Peterson, 1996	Mental health services, including psychotherapy	Teenage mothers with MHPs	Psychiatric nurses and nursing students Psychiatrist	Includes PTSD, MDD, dysthymia, PD, GAD/panic disorder, adjustment disorder, bipolar disorder, schizophreniform disorder	38 27/38 white	Single group, descriptive programme evaluation	USA

Study	Nature of service or intervention	Who for	Who delivers	Mental health problem	Study participants	Study design	Country
Hye Ha and Ja Oh, 2006	Cognitive Behavioural Group Therapy	Depressed mothers of children with behavioural problems	Professor of Child Welfare and psychology 'resident'	Maternal depression	17 in CBT group 17 in waiting list group No socio-economic details given	Two group intervention study with waiting list control	Korea
Waldo et al, 1987	Mother and Children's parenting and early intervention project	Mothers with schizophrenia and at least one preschool child	Psychologists Child development specialist Social worker Volunteers (mothers)	Maternal schizophrenia	31 initially recruited 25 attended regularly No socio-economic details given	Single group, descriptive programme evaluation – professionals' views only	USA
Papworth et al, 2001	Group meetings – psycho-educational in type	Mothers	Not stated	Maternal risk of MHP	11 All lone parents All 'full-time carers'	Single condition, repeated measures, before and after study	UK
Nielsen, 2005	Family therapy	Families with family problems and at least one parent with simultaneous MHP. All children living at home under 18 years	Psychotherapists	Includes affective disorders, anxiety disorders, reaction to stress and adjustment disorders, eating disorders, personality disorders	58 families/101 patients initially in study 31 families/53 patients participated: 8/53 lone parents13/53 higher education or currently student 45/53 in paid work 28 families / 48 patients dropped out: 7/48 lone parents	Single group, before and after study with comparative data	Denmark

Study	Nature of service or intervention	Who for	Who delivers	Mental health problem	Study participants	Study design	Country
					11/48 higher education or currently student 30/48 in paid work		
Swartz et al, 2006	Brief interpersonal psychotherapy	Depressed mothers of children 12-18 years receiving psychiatric treatment	Clinical psychologist and trained mental health clinicians	Maternal depression	13 4/13 lone parent 10/13 white 5/15 college or graduate diploma	'Open-label', single group, before and after pilot study	USA
Cardemil et al, 2005	Family coping skills programme	Low-income, 'Latina' mothers	Group leaders not otherwise described	Maternal depression	33 recruited initially 12/33 lone parent 10/33 in paid work 21/33 annual household incomes < $25,000 24 completed programme	Single group, before and after study	USA
Alder, 2005	Assertive outreach programme	Parents with severe and enduring MHPs and 'dependent' children	Project co-ordinator and group worker not otherwise described	Largest group schizophrenia, also includes depression, post-natal depression, bipolar disorder, personality disorder	13 39% white	Single group, descriptive programme evaluation	UK

Study	Nature of service or intervention	Who for	Who delivers	Mental health problem	Study participants	Study design	Country
Not given 2000 Emerson-Davis Family Development Center	Family residential development centre	Mothers with MHPs and history of homelessness. Children 1 wk to 15 years	Social worker, counsellor, clinical child psychologist, family development specialist, substance abuse counsellor, case managers, child care workers	Mostly schizophrenia or mood disorder, plus ‘other’	Not given – typical numbers in residence 85-95 15% white 66% never married 64% did not complete high school	Single group, descriptive programme evaluation	USA
Not given 2002 Arkansas CARES	Residential treatment of dual diagnosis conditions, with intensive aftercare	Low-income mothers with dual diagnosis and their children, under 13 years at one site, under 19 years at another	Paediatricians, family physicians, psychiatrists, nurses, social workers, psychologists, early years special education specialists, alcohol and drug abuse treatment counsellors, nutritionists, physio- and occupational therapists, speech and language pathologists, toxicology professionals	Maternal dual diagnosis, Co-morbid MHPs include depression, schizophrenia, bipolar disorder, PTSD	72 No socio-economic details given	Single group, descriptive programme evaluation	USA
Pasquariella, 1996	Therapeutic unit	Parents with severe and chronic MHPs, their families and children 0-5 years	Psychotherapist, psychiatrist and clinicians with extensive experience in child and adult psychotherapy, clinical supervisor	Maternal severe and chronic mental illness	34 parents, 45 children ‘Modal family’ is white, low income (public assistance and/or social security subsidised), and lone mother	Single group, before and after study	USA

Study	Nature of service or intervention	Who for	Who delivers	Mental health problem	Study participants	Study design	Country
Pitman and Matthey, 2004	Psycho-educational programme	Children 8-16 years who have a parent or sibling with MHPs	Social worker (first author) and co-facilitators not otherwise described	MDD with or without anxiety or bipolar disorder, or schizophrenia	25 children from 18 families 66% girls 11/25 'English-speaking background'	Single group, before and after study	Canada Australia
Verdeli et al, 2004	Interpersonal psychotherapy	Depressed mothers of children (mean age 14.1) being treated for depression	Experienced clinician trained in interpersonal psychotherapy	Maternal, unipolar, non-psychotic depression	12 initially recruited 17% white 66% lone parent 67% completed high school 58% in paid work 60% annual household income ,$10,000 9 completed intervention	Single group, before and after study	USA
Bassett et al, 2001; 2003	Parenting skills programme with activities for children and monitoring	Parents with major MHP and their children under 5 years	Occupational therapists Guest speakers	Major mental illness	34 parents referred in 2 years No socio-economic details given except all able to read and write	Single group, qualitative programme evaluation with some before and after data	Australia
Orel et al, 2003	Psycho-educational intervention	Children (8-13 years) of PMHPs	Mental health professionals Volunteer mentors	Includes bipolar disease, MDD, schizophrenia	11 children 8/11 girls 9/11 white	Single group, before and after study	USA

Study	Nature of service or intervention	Who for	Who delivers	Mental health problem	Study participants	Study design	Country
Sheppard 2004	Direct social work and indirect work through other agencies	Mothers in care managed families who have screened positively for depression	Social workers	Maternal depression	87, but data for 85 No socio-economic details reported	Single group, descriptive survey with post-hoc comparison	UK

Abbreviations

BDI	Beck Depression Inventory
CES-D	Center for Epidemiologic Studies – Depression Scale
DSM IV	Diagnostic and Statistical Manual of Depressive Disorders (4th edition)
HAM-D	Hamilton Rating Scale for Depression
ICD	International Classification of Disease
MINI	Mini-International Neuro-Psychiatric Interview
PSI	Parenting Stress Index – short form
SADS	Symptoms of Anxiety and Depression Scale
SCI	Structured Clinical Interview

GAD	Generalised anxiety disorder
MDD	Major depressive disorder
OCD	Obsessive compulsive disorder
PD	Personality disorder
PMHPs	Parents with mental health problems
PTSD	Post-traumatic distress disorder

Table 2.4: Quality assessment of RCTs using amended Jadad criteria

	Jadad criteria			
Author and year	**Described as randomised**	**Appropriately described as randomised**	**Description of withdrawals and dropouts**	**Score and comments**
Bayder et al, 2003	Yes	Yes, cluster randomised by centre with waiting list control	Yes	3/3
Beardslee et al, 2003	Yes	Yes, balanced block randomisation stratified by family type	Numbers only, no comparison between participants and withdrawals or drop- outs. Different numbers given in the two papers	2/3
Butler et al, 2000	Yes	No information given about randomisation procedures	No	1/3 Described as a 'field trial'
Cichetti et al, 2000 Toth 2006	Yes	Yes	Yes	3/3
Sanders, 2000	Yes	Procedures not described so can't tell	No. But it is claimed that 'completers' and 'non-completers' were not different on a range of socio-economic and pre-intervention measures	1/3
Tritt et al, 2004	Yes	Yes	No	2/3
Verduyn et al, 2003	Yes	Yes	No	2/3 Difficult to understand is meant by the 'refusal/withdrawn numbers in fig 1. It does not seem related to the numbers actually followed up

	Jadad criteria			
Author and year	**Described as randomised**	**Appropriately described as randomised**	**Description of withdrawals and dropouts**	**Score and comments**
Peden et al, 2005	Yes	Procedures not described	No, but equivalence is claimed	1/3
Beeber, 2004	Yes	Yes	Yes	3/3
Clarke et al, 2001	Yes	Yes	Yes	3/3
Clarke et al, 2002	Yes	Yes	Yes	3/3
Nickel et al, 2005	Yes	Not clear	No	1/3

Table 2.5: Quality assessment of RCTs using EPOC criteria

	EPOC						
Author and year	**Concealment of allocation**	**80% follow-up of total sample randomised (at final follow-up)**	**Blinded assessment of primary outcomes**	**Baseline measurements before intervention and no substantial differences between groups**	**Reliable primary outcome measures**	**Protection against contamination**	**'Score'**
Bayder et al, 2003	Done	Not done 394/512 (77%)	Done	Not done	Not done	Done	3/6
Beardslee et al, 2003	Not clear	Done 93/105 families (89%)	Not clear.	Done	Not clear	Not clear	2/6
Butler et al, 2000	Not clear	Done 73/76 parents (96%)	Not clear.	Not clear	No	Not clear	1/6
Cichetti et al, 2000 Toth, 2006	Not clear	Not done 108/210 (54%)	Not clear	Done	Done for children 3-7 Not clear for children up to 30m	Not clear	1.5/6
Sanders, 2000	Not clear	Not done 37/47 (79%)	Not clear for most	Not clear	Not clear	Not clear	0/6
Tritt et al, 2004	Not clear	Done 29/33 (88%)	Done	Not clear	Not clear	Done	3/6
Verduyn et al, 2003	Done	Not done 86/119 (72%)	Done	Done	Not clear	Not clear	3/6

	EPOC						
Author and year	**Concealment of allocation**	**80% follow-up of total sample randomised (at final follow-up)**	**Blinded assessment of primary outcomes**	**Baseline measurements before intervention and no substantial differences between groups**	**Reliable primary outcome measures**	**Protection against contamination**	**'Score'**
Peden et al, 2005	Not clear	Not done 91/136 (67%)	Not clear	Not clear	Done	Not clear	1/3
Beeber, 2004	Not clear	Done 16/16 (100%0	Not done	Done	Done for depression. Maternal interactions assessed by 'trained PI'	Not done	3
Clarke et al, 2001	Not clear	Done 78/94 (83%)	Yes	Done	Yes	Not clear	4
Clarke et al, 2002	Not clear	Done 75/88 (85%)	Yes	Done	Yes	Not clear	4
Nickel et al, 2005	Not clear	Done 41/43 (95%)	Done	Done	Not done	Done	4

None of the RCTS scored the maximum of six points using the EPOC quality criteria. The highest scoring studies (with four points) were Clarke (2001; 2002) and Nickel et al (2005) followed by Bayder et al (2003), Beeber et al (2004), Tritt et al (2004), and Verdyn et al (2003) (with three points). The lowest scoring studies (with no or only one point) were Butler et al (2000), Peden et al (2005) and Sanders et al (2000). Ten of the 12 RCTs failed to describe whether the randomised allocation procedures had been adequate (concealment of allocation) while six did not make clear whether primary outcomes had been assessed 'blind' to allocation. Despite the view expressed in many of the studies reviewed, in both this review and its companion – that PMHPs are a difficult group to recruit to research and then retain – seven of the 12 RCTs managed to achieve follow-up of 80 per cent or more of the randomised samples.

The two methods of assessing quality are clear about the highest quality reporting of trials – Clarke (2001; 2002) – and about the poorest – Butler et al (2000), Peden et al (2005) and Sanders et al (2000). However, there is disagreement about others – Cichetti scored highly on Jadad and lowly on EPOC, while Nickel et al (2005) scored lowly on Jadad and highly on EPOC. Taking both scales into account, the overall ranking of the studies, from highest quality reporting to poorest, is: Clarke (2001; 2002), Bayder et al (2003), Beeber et al (2004), Tritt et al (2004), Verdyn et al (2003), Nickel et al (2005), Cichetti, Beardslee, Butler et al (2000), Peden et al (2005), Sanders et al (2000). It may be worth pointing out that all the trials included were published after the CONSORT guidelines on the reporting of RCTs had been issued (Begg et al, 1996).

The Downs and Black (1998) quality assessment tool is more complex than either the Jadad or the EPOC tools, allowing separate assessment of the quality of reporting, external and internal validity, selection bias and statistical power. However, as in Table 2.3, we have also combined the sub-scores and produced an overall mean score. The denominator for different elements varies from study to study, depending on the relevance of the quality indicator to particular studies.

Overall, the quality of the non-RCT studies was poor; only two (Bogard et al, 1999; Verdelli et al, 2004) achieved an overall score above 50 per cent and another three (Brunette et al, 2004; Free et al, 1996; Hawes and Cottrell, 1999) scored between 40 and 49 per cent. As might be expected, the two publications that described intervention programmes but also referred to limited outcome data (Emerson Davies Family Center, 2000; Arkansas CARES, 2002) scored very poorly. However, other publications that made greater claims to being reports of research projects also did poorly. None of the non-RCT studies referred to the statistical power of the study, despite many of them being efficacy studies (i.e. testing whether or not the intervention had an effect, using a before and after design, where the statistical power to detect change is a crucial issue). Similarly, very few studies addressed issues of selection bias (i.e. whether the people were selected for the study in a systematic and non-biased way). Overall, internal validity was stronger than external, but this perhaps reflects the pilot nature of several of the studies included. The quality of reporting varied widely across the studies; from the Hawes and Cottrell (1999) study that achieved a reporting score of 75 per cent to Hye Ha and Ja Oh (2006) that achieved a reporting score of 10 per cent.

The relatively poor assessed quality of both RCT and non-RCT studies is disappointing, and obviously reduces the reliance that can be placed on their findings in relation to developing practice guidelines. However, given the overall paucity of research in the area of PMHPs, it seems better to glean what one can from the research that there is (albeit with consequent ‘health warnings’) than to exclude a large part of what has been found.

Chapter 3 Access and acceptability

Introduction

The process of screening items, and our preliminary reading of included items, highlighted ambiguities or inadequacies in the way in which the concepts of access and acceptability have been defined by research projects. This was, to some extent, to be expected and was the reason why the reviewers chose not pre-define access or acceptability in the protocol. As a result this chapter begins with a discussion of the notions of access and acceptability within the context of support services for parents with mental health problems.

Understanding the process of gaining access to and using services

The terms ‘access to’ and ‘acceptability of’ services are commonly used within research and practice communities. However, there is relatively little theoretical writing about the two concepts and a number of different definitions or models exist (for example, Pechansky and Thomas, 1981; Aday and Anderson, 1981; Maxwell, 1984; Gulliford et al, 2001; Rosen et al, 2001). As stated in the protocol the research team chose not to align themselves to a particular model or concepts of access and acceptability at the outset of the review though they noted the potential usefulness of the scoping review on access to health care conducted by Gulliford et al (2001) and the further work leading from that review carried out by Rosen et al (2001).

Existing models of service access referred to above are typically based on evidence about access to **health** services and, we would suggest, appear to approach the issue of access predominantly from a position of non-service use to use of a single service, as opposed to referral of an existing service user to a new or additional service. They also seem to be more appropriate to situations where there is a relatively short or fixed-term use of a service (for example, one-off access NHS direct, a series of appointments leading to the ‘cure’ of a condition). In addition, the underlying assumption appears to be that the individual is accessing a service for themselves, as opposed to accessing services for another family member. Finally, insufficient attention appears to made to the fact that professionals may be playing a significant role in accessing or gate-keeping access to services.

Our preliminary reading of the literature on parents with mental health problems experiences of using of services painted a very different picture. For instance:

- A number of decisions or processes (for example, identification or acknowledgement of need) precede parents actually trying to gain access to a service.
- Apart from clinical interventions, support services for parents with mental health problems and their families are unlikely to be provided by health services.
- A number of agencies or services may be working with a family, and these different agencies/services may or may not be involved with a family for the same reason(s).

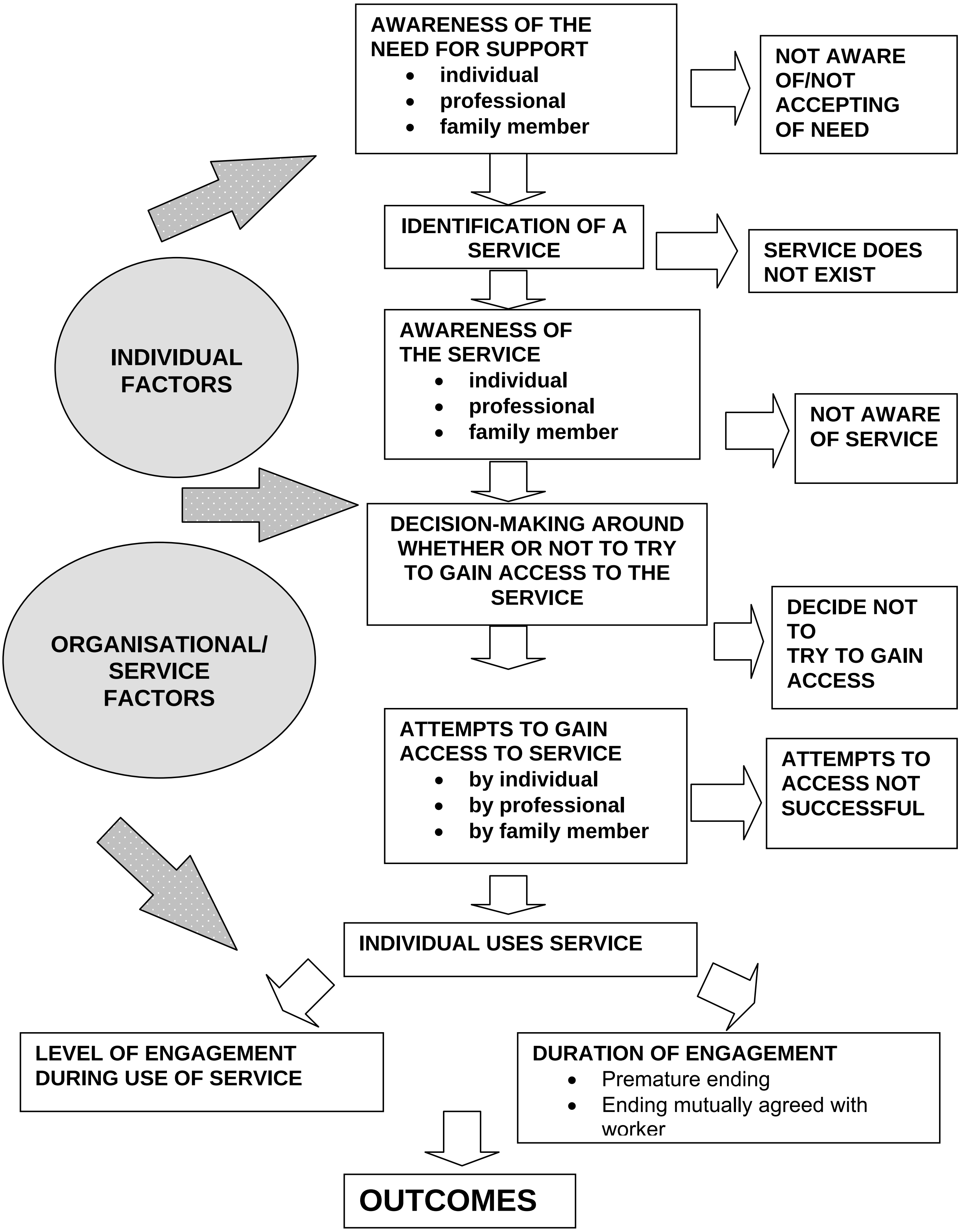
- Families move in and out of using services.
- Services may well be involved with a family over a long period of time.
- Children's access to some services typically happens through their parents' involvement in services.

This lack of 'fit' between the approaches or assumptions of existing models of access and acceptability and the 'service lives' of parents and their families led the research team to develop its own model of accessing and using services by which the evidence identified by this review could be understood, see Figure 3.1.

There are four key features to this model. First, it emphasises the way that accessing services is a process. Second, that process can begin well before individuals are actually 'interfacing' with services. Third, there are a number of stages during that process in which individual and organisational/service factors may intervene to support or hinder an individual getting to use a service. The same factor may intervene at different stages, likewise other factors may only come into play at a particular stage in the process. Fourth, the model extends into the actual use of a service and acknowledges the role that individual and organisational/services factors will play in terms of the level and duration of engagement with a service.

The model starts at the point when an individual, other family member or professional becomes perceives the need for support. This leads to identifying whether or not there is a service which, potentially, could meet that need. There is then a decision-making process around whether or not to access the service. If the decision is taken to access the service, then the individual (or family member or professional) attempts to gain access. If these attempts are successful, the individual then uses the service, or, using the research term, there is 'take up' of the service. Use of that service can be understood in terms of level (or degree) of engagement. For example, regularity of attendance, degree of participation in a support group discussion, extent to which individual carries out 'homework' between sessions. In addition, use can also be understood in terms of duration of engagement (or attrition): did the individual stop using the service at a time mutually agreed with their worker or clinician, or did they leave the service prematurely? Finally, there is the outcome of using the service (evidence with respect to this aspect of the process is covered by a different question in this review).

Figure 3.1: The process of accessing and using a service



Working beyond the notion of acceptability

The notion of acceptability appears to be even more loosely defined in the literature and was not a term commonly encountered in the research reviewed. However, what was clear from reading the evidence was that a number of factors are at play which affect parents'/families' experiences of using services and whether or not parents/families engage with and continue to use a service. Many of these factors appeared to fall outside what is typically understood as 'acceptability'.

As a result, alongside evidence regarding access, this report presents a synthesis of evidence regarding any factors which hinder or facilitate parents' (and other family members') **use of services**. It should be noted that, in selecting papers for inclusion, the research team made the distinction between papers which simply reported what parents said they liked or disliked about using a service (of which there are a sizeable number) and research which explored the impact of these likes or dislikes on level of engagement with a service and/or with duration of use. Only the latter were included in the review. The title of this chapter reflects the change in focus of this review.

The evidence reviewed

Sixty-eight papers (reporting 63 studies) were identified as being relevant to this review. Fifty-seven papers included evidence concerned with access to services and 32 papers included evidence concerned with using services (24 papers contained evidence relevant to access and to using services). Table 2.1 provides an overview of the papers included in this part of the review (i.e. author, date, main aim of research, basic research design and sample, service/setting from which sample recruited, achieved sample size, mental health problems of parents represented in research, country in which the research was conducted).

The services represented by the research are predominantly mental health services, typically inpatient or community or outreach services. This clearly does not represent all the services which parents with mental health difficulties use and this is an important limitation of this review. It is very likely that parents with mental health problems have been included in research with regard to their use of other support services but they have not been identified as such.

The participants or identity of those under research is predominantly mothers. No papers were identified which were concerned with members of the extended family or were specifically concerned with fathers. Only a handful of studies included, or had as their sole focus, children's views and experiences.

The methodologies used by included studies include practitioner or expert academic surveys, focus groups and individual interviews; case note reviews; surveys, focus groups and individual interviews with parents and other family members. The data was predominantly qualitative. Finally, compared to the evidence on outcomes of interventions, a greater proportion of research projects included for this review were located in the UK.

The analytical approach

The evidence base for this report is almost entirely qualitative evidence or simple, small scale quantitative data. As a result, the analytical approach taken was one of narrative synthesis. The research team was guided by the principles of working set out in the ESRC report on conducting narrative synthesis (Popay et al, 2006). Papers were read in depth and a framework for data extraction agreed by the research team (see Appendix 1). Qualitative data was entered into the data extraction charts in summary form. Quantitative data was, where available, fully extracted but also summarised into text and, in the majority of cases, synthesised with any existing qualitative data. Cross-team consistency in the application of the coding framework was reviewed and checked on an on-going basis.

Quality appraisal

The papers included in this review represent a considerable range in terms of the quality and depth of reporting of research design, methods and, particularly, the way any qualitative data was analysed. In addition, many of the studies are small scale, both in terms of sample size and scope, see Table 2.1. This makes the application of any quality appraisal tool, unless it is extremely blunt (and therefore relatively meaningless) extremely difficult. The definitional ambiguities with regard to notions of access and acceptability also introduce difficulties to any appraisal process. Thus, to date, the evidence has not been through any systematic quality appraisal process.

The structure of the report

The structure of the report is as follows:

- Factors associated with access to services by parents with mental health problems and/or their families.
- Factors associated with parents with mental health problems' engagement and use of services.

To improve the readability of the document detailed information about the methodology, sample size and origin of specific studies is only included in the text where the authors have judged it to be necessary to the understanding or interpretation of the research findings. Thus, detailed descriptions of studies in the body of the report is restricted to where quantitative data is reported or where the topic under discussion may be 'country specific' due to policy or service organisation factors. Tables are provided summarising the research included in the review for use by the reader.

Barriers and facilitators to accessing services

Introduction

In this chapter we report the barriers and facilitators to accessing services which have been **identified by research**. It is therefore an incomplete listing of the barriers that may be encountered by families (or their workers) during the process of accessing services. Data was extracted from 65 papers.

In many cases it is very difficult to tease apart parents' access to services and children's access. Sometimes this is because the service under investigation may be providing support to parents and children (for example, parenting support). In other instances the distinction is not made clear in the way the research is reported or because the research was concerned with all support services for families rather than a particular service. However, where possible we distinguish evidence with regard to parents' (typically mothers') access from evidence concerning children's access to services. No evidence was identified with respect to services for other family members, nor was any found which was concerned specifically with fathers.

The factors identified can be categorised as individual factors (i.e. located in the individual) and organisational or service factors.

Eleven individual factors have been identified from the evidence reviewed which have been found to act as barriers to accessing services by parents with mental health problems and/or their children. We have collapsed these into five overarching sets of factors:

- Socio-demographic factors
- Race/ethnicity factors
- Knowledge and beliefs factors
    - > Understanding and acceptance of mental health problem
    - > Individual beliefs about help-seeking
    - > Knowledge of services
    - > Fears about losing custody
    - > Stigma
- 'Life circumstance' factors
    - > Conflicting demands on parents
    - > The presence of other stresses or difficulties
- Mental health factors
- Other factors

Twelve sets of service/organisational factors have been identified as impacting on families' access to services. We have collapsed these into four over-arching sets if factors:

- Staff factors
    - > Perceived roles and responsibilities
    - > Professional's view of a case

  - The relationship between parents and professionals
  - Staff skills and expertise
  - Staff time
- Service delivery factors
  - Ways of working
  - Availability of worker
  - Availability of services
- Organisational factors
  - Case level mechanisms and procedures
  - Eligibility criteria
  - Coordination and collaboration
- Other factors

Individual level factors identified by research which affect access

Socio-demographic factors

Very little evidence was identified which explored the impact of socio-demographic factors on access to services. This is partly because of the paucity of quantitative research in this area.

One study reports that **marital status** affects whether or not children of parents with mental health problems gain access to services. DeChillo et al (1987) reviewed the case notes of 127 randomly selected inpatients of a US psychiatric unit to investigate if any factors increased the likelihood of staff ascertaining if the parent had any children. Only patients' marital status was found to be significantly associated with the likelihood of staff finding out about the presence of children. Married or previously married patients had significantly greater likelihood of children being identified than single parents. DeChillo et al also found that **parents' gender** was associated with whether or not the hospital social work team met the with the patient's child(ren). Specifically, cases in which the patient was the child's mother had a statistically greater likelihood of a meeting between the child and the family's social worker than did cases where the patient was the child's father.

Another study (Sleath, 2006), this time of mothers using homeless shelters in a US city, found that **mother's age** was associated with access to mental health services. Older mothers were significantly more likely to report unmet needs for mental health services compared to younger mothers.

Race/ethnicity

Just two studies specifically report on the association between race and access to service by parents with mental health problems. One was a qualitative study conducted in the US and concerned the views about mental health services held by mothers (n=127) with mood or depression disorders who had sought help with their child's mental health (Anderson et al, 2006). Although 40 per cent of the sample was African American, the authors report that, even when specifically asked about this topic, only a few minority mothers stressed the importance of race as a barrier to accessing services. The second piece of work was conducted in the UK and studied a support project for Asian mothers with mental health problems (Hussain and Gerrard, 2001). The authors note that many of the users of the service had had problems for several years but were reluctant to accept help from non-Asian professionals. One of the outcomes of the project was that it appeared to facilitate access to generic services (i.e. the local Mother and Baby Unit).

Knowledge and beliefs factors

Understanding and acceptance of mental health problem

Impact on parents' access to services: Anderson et al (2006) explored mothers' perceptions of their mental health problems and how this impacted on their views and use of formal services. Over 120 women were interviewed, all of whom had sought treatment for their children at community mental health centres in four disadvantaged communities in a US city. All had screened positively for anxiety and/or depression. The researchers had hypothesised that these mothers might not accept a referral for treatment (based on scores on a screening instrument) because they did not regard their 'distress' as anxiety or depression. However, virtually all mothers agreed they were anxious and/or depressed, but their perceptions of the causes of their distress were found to be possible barriers to seeking or accepting treatment for themselves. In essence, mothers' ascribed their distress to one of three causes: poverty, past or current experiences of abuse, or managing a troubled child.

Living in poverty was described by mothers as continually having to maintain a fine balance between survival and crisis. Having an abusive partner was not only highly stressful in itself, but mothers expressed fears that becoming a service user themselves might be used against them by the abusive partner. Managing a troubled child was the most commonly reported source of stress and mothers' sense of responsibility for their child's problems contributed to their distress. It also meant mothers felt that it would be inappropriate to address their own needs before their child was well. Indeed, some mothers believed their distress was inextricably linked to their child's distress and that, once their child's distress was resolved, they would also recover.

The common theme to these perceived causes of distress is that they are all external causes. This was seen by the researchers as driving mothers' negative responses to a possible referral to mental health services which mothers saw as focusing on making internal changes. The authors report that mothers made the distinction between depression which was a normal response to a difficult life, and that which involved seriously impaired functioning and would require mental health intervention. Thus the mothers believed that relief from their own distress would come 'with a change of life circumstances, not medication or "talk therapy"' (p 934). They were not confident, however, that services would make this distinction.

Impact on child(ren) accessing services: A number of projects have identified that parents' lack of acceptance of their illness or not understanding its potential impact on their child(ren), acts as a barrier to children accessing support services. A quarter of adult mental health professionals and welfare workers (n=60) participating in Maybery and Reupert's (2006) research (Australia) identified this as a barrier to professionals assisting children's access to support.

Singer et al (2000) found that some parents wanted to hide their illness from their children and did not want to talk to them about it, something which would clearly be a potential barrier to the child accessing support. This notion of silence within some families about the parents' mental health problem is also reported by Shachnow (1987). When discussing with 'well' parents (that is, the parent without the mental health problem) the possibility of interviewing their child for a research project on the impact of hospitalisation of a parent, Shachnow found this prompted the well parents to review their impressions of how their child(ren) were coping. Whilst they had initially stated their child(ren) were coping well, in subsequent interviews the well parents referred more to difficult behaviours and symptoms of distress. They also reported they had been talking to their child about the ill parent thereby giving the child 'permission to break the heretofore stifling silence' (p 74). Other research suggests that parents with mental health problems can also have difficulty acknowledging the impact of their illness on their children (Stormont et al, 1997)

Individual beliefs about help-seeking

Another factor implicated in whether or not parents' access services are individual beliefs about help-seeking. Cowling and colleagues (Cowling, 1996, 1999; Cowling et al, 2004) report that beliefs about help-seeking influenced whether or not parents' sought help with parenting. They report parents believed they should be able to handle their child's problems on their own (59 per cent of those surveyed) and were therefore reluctant to seek help (61 per cent). Earlier work by Cowling (1996, 1999) suggests that some parents view seeking help as indicating failure as a parent, and sensitivity to this was heightened by the need to feel independent and control in at least some areas of their lives. Cowling et al (2004) found no associations between help-seeking behaviours and age, gender, education level, income level, marital status or family size. Hearle et al (1999) report similar figures from their survey of parents using community and inpatient mental health services with regard to accessing child care services (n=107). Here almost half of respondents (49 per cent) stated the desire to manage alone, and 30 per cent saying they would be too embarrassed to ask for help.

Sheppard (2001) draws a similar interpretation on why some depressed mothers do not access services. He identified a sub-group of mothers who sought to present themselves to professionals as capable and coping parents (labelled by Sheppard as 'stoics') and who could not, therefore, ask for help or support. Sheppard (2001) also reports that stoicism can be a cultural factor affecting access to services. He cites the example of a South Asian 'immigration overstayer' feeling that she is not entitled to any financial support and who, despite being in a desperate situation, would not accept money from her social worker.

Knowledge of services

A lack of knowledge about support services are reported by a small number of studies to affect parents' and children's access to services. This includes knowing that the help and support a parent desires is available, and also knowing where to go to access such services.

Research evidence on levels of knowledge of services among parents with mental health problems is extremely limited. Cowling et al (2004) report that 41 per cent of parent users of community and inpatient services (Australia) they surveyed (n=61) said stated they did not know where to go for help with their child's behaviour problem. Furthermore, 38 per cent did not seek help with this difficulty because they did not think anyone could help. Hearle et al's (1999) survey of parents with psychotic disorders (n=124) drawn from community and inpatient settings (also in Australia) found a similar proportion of parents (36 per cent) reporting not knowing where to go for help with child care.

A number of pieces of qualitative research report parents' desires for more information about the sorts of help and support available (Slattery, 2006; Stanley et al, 2003). Participants in Basset et al's (1999) study highlighted the importance of providing information not only about the services themselves, but also how to access them. However, it should be noted that these mothers also reported that knowing about services did not mean they would actually access them.

Fears about losing custody of the children

Fifteen studies reported that fear of losing custody of the children acted as a barrier to mothers accessing services, either for themselves, for family support or for their children (Diaz-Caneja and Johnson, 2004; Cowling, 1996, 1999; Aldridge and Becker, 2003; Heneghan et al, 2006; Stanley et al, 2003a; Slattery, 2006; Montgomery et al, 2006; Blanch et al, 1998; Nicholson et al, 1998; Anderson et al, 2006; Ackerson, 2002; Ackerson and Venkataraman, 2003; Bassett et al, 1999; Hearle et al, 1999; Gopfert et al, 1999; Handley et al, 2001). These studies included those which had researched practitioners views about barriers to accessing services as well as parents' (and in particular, mothers') views. These studies report a general fear or suspicion of all services, though social services/child protection authorities were particularly feared by mothers (Diaz-Caneja and Johnson, 2004; Cowling, 1999; Aldridge and Becker, 2003; Heneghan et al, 2006; Stanley et al, 2003a; Slattery, 2006). The most extreme accounts of fears of losing custody were found in research involving mothers with severe and/or enduring mental illnesses where phrases such as 'pervasive fear' and 'greatest fear' are used by the researchers to describe the extent of mothers' concerns about losing custody of their children (Diaz-Canajea and Johnson, 2004; Cowling, 1996).

Sometimes the fears expressed were not voiced in terms of custody but simply as 'social service involvement' (Mayberry and Reupert, 2006; Wand and Goldschmidt, 1996; Gilbert et al, 2002; Thomas and Kalucy, 2002).

Four underlying reasons for these fears emerge from mothers accounts:

- **Any** involvement with services, particularly social (or child protection) services, increases the risk of your children being taken away (Diaz-Caneja, 2004; Anderson et al, 2006; Heneghan et al, 2006; Aldridge and Becker, 2003; Wang and Goldsmidt, 1996).
- Having a mental health problem or diagnosis of mental illness increases the risk that professionals will regard you as being an 'unfit mother', or a poor parent and this will be formally recorded (Ackerson, 2003; Diaz-Caneja, 2004; Maybery and Reupert, 2006; Wand and Goldschmidt, 1996).
- Asking for help will be interpreted by professionals as not coping (Cowling, 1999; Anderson et al, 2006; Bassett et al, 1999; Hearle et al, 1999; Slattery, 2006; Heneghan et al, 2006).
- Admission for inpatient care increases the risk of losing custody (Stanley, 2003b; Montgomery et al, 2006).

Some studies also noted that mothers' referred to a sense of powerless in their dealings with professionals which reinforced these fears (Anderson et al, 2006; Montgomery et al, 2006; Gopfert et al, 1999). Two studies found that feelings of powerlessness were particularly strong among mothers from lower income groups (Anderson et al, 2006; Heneghan et al, 2006).

Stigma

Two different perceived stigmas have been identified as potentially interfering with parents' accessing services for themselves or their children. First, is the perceived stigma of being labelled (by professionals or within community or social networks) as having a mental illness or mental health problem (Stanley, 2003b). The second was the stigma of being labelled by people within the community or social networks as a service user (as someone 'needing help'), either specifically of mental health services (Gopfert et al, 1999) or services more generally (Ackerson and Venkataraman, 2003; Handley et al, 2001; Cowling et al, 2004). What is not particularly clear is the precise meaning of this notion of stigma, though Cowling et al (2004) describe it as 'fear of what others would think'. Stigma is something that is often referred to within the context of mental health and it is perhaps helpful to point out that the main respondents in three of pieces of research were professionals or experts in this field. However, there is little evidence directly from users on this issue to provide a clearer picture of the nature and processes underlying these perceived stigmas.

‘Life circumstance’ factors

Conflicting demands on parents

Time: Cardemil et al (2005) explored recruitment and enrollment rates of low income Latina mothers to a depression prevention programme (US). A quarter of the sample (n=34/137) approached declined further information about the project, the vast majority of these mothers cited not having any free time to participate.

Parental responsibilities: Parental responsibilities are reported in research both as a factor facilitating and hindering accessing to services. Thus, Diaz-Caneja and Johnson (2004) report that wanting to maintain parental responsibilities motivated mothers to access community mental health services. Other studies (Nicholson et al, 1998; Nicholson and Henry, 2003) found that mothers resist accessing services or certain treatment options (for example, hospitalisation) because they were in conflict with parental/caring responsibilities.

The presence of other stresses or difficulties

There is some evidence that parents do not prioritise accessing support or services with regards to their mental health because of the other difficulties facing them and/or their families. Nicholson et al (2003) describe how meeting housing and transport needs, accessing childcare and leisure activities for their children were goals for all mothers participating in their research on the service needs of parents with severe mental illness. They also note that meeting these basic needs can be very challenging for some women because of their lack of financial resources and the difficulties they have completing paperwork. Feldman et al’s (1987) study of the family circumstances and use of formal support services among families where there is a parent with a mental illness also highlights the way that parental mental illness may not be the most pressing concern for families. Whilst 80 per cent of study families (n=178) reported a significant problem in the previous 12 months, parental mental illness was regarded as the most significant family problem for only 10 per cent of the sample. More frequently reported problems were problems with children (24 per cent) and financial problems (17 per cent). In addition, these sorts of problems were most likely to be rated as the most severe type of problem experienced, whereas parental mental illness or hospitalisation had the lowest average severity rating.

Mental health factors

Research has identified a number of different ways in which mental health factors can impact on access to services – either for the parent or their children.

Not having a diagnosis was identified by two studies (one based on professional views, the other on the views of young carers) as impeding parents’ access to appropriate mental health services (Ackerson, 2003; Aldridge and Becker, 2003). Similarly, Olson et al (2006) found that a positive result (and higher levels of symptoms) on a screening tool made it more likely for paediatricians to take further action (for example, referral or on-going monitoring).

Severity of the mental health problem was found by Needleman et al (1999) to increase the likelihood of mothers' accepting a referral from primary care to adult mental health services. The level of severity (as indicated by a screening tool) also influenced professionals' actions following the identification of a mental health problem.

One piece of research suggests that the impact of the mental health problem on accessing services can be more subtle and affects the **type** of help that parents can access from a service they are already using. Thus Sheppard (2001) reports that social workers providing support to depressed mothers found that manifestations of the parents' mental health problem (for example, anger, aggression) made it difficult for them to engage parents in direct work about their mental health. However, the same parents did find it acceptable for them to provide other forms of support.

Finally, practitioners participating in Darlington et al's (2005) research report that rapidly changing symptoms can make planning and delivering support difficult. On-going flexible support (as opposed to operating within a cycle of providing crisis support and withdrawing until the next crisis) was identified as being the best way of supporting such families.

Parental mental health factors and children's access to services

There are small amounts of disparate evidence about the way mental health factors affect children's access to services. Thus, Montoliu et al (1999) found that the nature of the mother's diagnosis did not correlate with whether or not children were mentioned in case notes and/or interventions were taken on behalf of children. On a different note, Nicholson et al (1998) reports that mothers' mistakenly ascribe generic parenting problems to the presence of their mental health problem and therefore do not seek generic or mainstream sources of help for their child.

Adult mental health professionals participating in Maybery and Reupert's (2006) research identified the parents' mental illness as a barrier to exploring with parents any parenting issues or the support needs of their children. The ways in which the mental illness acted as a barrier to discussions about accessing parenting or child support included: the 'unwellness' of the parent, and the fact that parents are so focused on managing daily life and their own mental health needs that they are unable to focus on the potential needs of their children. Singer et al's (2000) small scale qualitative study of mothers and children with severe mental illness found that the severity of symptoms could mean mothers were unable to take their child to their own mental health appointments. Needleman et al (1999), however, did not find association between severity of the mental health problem and mothers' acceptance of their child's referral to mental health services.

Other individual level factors affecting access to services

One paper reports that some children said they found it difficult to talk to professionals about their mother's illness because they were shy or embarrassed (Singer et al, 2000).

Another piece of research revealed that fears about treatments acted as a barrier to accessing services. Cowling et al (2004) found that some parents participating in their study avoided seeking help with their children's behaviour problems because they feared the treatment that might be given to the child.

Organisational or service level factors

Staff factors

Perceived roles and responsibilities

The boundaries professionals impose around their roles and responsibilities has been identified by a number of pieces of research as acting a barrier to parents and/or their children accessing services. This could mean that either children's needs (Blanch et al, 1998; Aldridge and Becker, 2003; Darlington et al, 2005; Maybery and Ruepert, 2006; Hetherington, 2001), adults needs as parents (Iddamalgoda and Naish, 1995; Maybery and Reupert, 2006), and/or parents' mental health needs (Sheppard, 2001; Anderson, 2006; Kearney et al, 2000; Stanley et al, 2003a) are overlooked.

Findings from Iddamalgoda and Naish's (1995) interviews with mental health professionals provides a clear example this in operation. They report that adult psychiatrists participating in their research believed it was important to know whether or not their patient had children, but only in terms of informing how they worked with the patient and to ascertain if the child was affecting their patient's mental state. Other research suggests that parents' experiences of child mental health services is similar, with clinicians typically not asking parents about their own well-being (Anderson, 2006). Darlington et al's (2005) survey of child protection and mental health practitioners (n=232) (Australia) found that child protection workers felt adult mental health practitioners sometimes withhold information about parenting capacity in order to protect the parent but without consideration for the child's need for protection.

A final example of the way perceived roles and responsibilities can mean parents do not receive services or interventions comes from Sheppard's (2001) detailed work with depressed mothers (n=97) and their social workers (UK). Interviews with social workers revealed a reluctance in emotional work with their clients, partly because it was seen as being outside their remit and could also, potentially, conflict with other roles the social worker had to play (for example, child protection). Instead, social workers either avoided raising the issue which meant parents' emotional needs remained unaddressed, or referred parents on to mental health professionals. Some social work staff were, however, reluctant to be proactively involved in referring mothers to mental health services. Social workers participating in the research believed the shift in the social work role from psychosocial practice to care management (driven, they believed, by the Children Act (1989)) meant that they were no longer able (or allowed to) do direct work with mothers.

Professional's view of a case

Sheppard's (2001) depth study of social workers from children and family teams presents interesting data on how professional judgements about a mother's mental health may hinder or facilitate access to services. The research focused on 95 families (where there was a depressed mother) and their social workers. In 13/95 (14 per cent) cases the social worker regarded the depression as the primary problem, in 52/95 (55 per cent) cases the depression was seen as a key feature of the case, and in 28/95 (30 per cent) cases the depression was unrecognised or seen as peripheral. Social workers' judgements were based on referral information and their own observations. Compared to mothers where the depression was unrecognised, mothers who were considered depressed were seen as more deserving, received a more sympathetic response from their social worker and there was greater willingness to put more effort into helping them. Libby et al's (2006) work on US adult mental health services also provides evidence of professional judgements being made as to whether parents require additional services.

In addition to making a judgement about the relevance of the mother's mental health to a case, Sheppard found that social workers also made judgements about the acuteness of the mothers' need for support. Parents who did not ask for support and presented themselves as coping (so called 'stoics') received less support for themselves and interventions by the social worker were very much directed towards the child. Sheppard's (2001) research also included interviews with the mothers and it is important to note that parents who were labelled as 'stoics' by social workers actually felt in strong need for parenting support from services.

The relationship between parents and professionals

Much of the literature on factors affecting access concerns access from one service to another as opposed to first time entry into services. As a result, there is a body of evidence around the ways the nature of the relationship between parents and professionals can support or impede access to other/further support services. Thus case managers participating in Hinden et al's (2005a, 2005b) studies report one of their roles to be mediating parents' contact and relationships with other professionals. The existence of a trusting relationship with their keyworker, social worker or paediatrician has also been identified as affecting whether or not parents felt able to reveal difficulties with parenting or their own mental health issues, and hence access support (Diaz-Caneja and Johnson, 2004; Sheppard, 2001; Anderson et al, 2006; Heneghan et al, 2006).

Staff skills and expertise

A number of studies report deficits in the skills and expertise of staff which may impede children's access to services and/or parenting support being provided to parents. Areas of skill or expertise identified included:

- Skills to talk with children about their parent's mental illness – identified by staff working in health and welfare settings (Cowling, 1996, 1999), including staff working in adult mental health (Hetherington and Bairstow, 2001; Maybery and Reupert, 2006; Gillam et al, 2003).
- Skills to work with parents who are finding it difficult to acknowledge the impact their mental health problem is having on their children – identified by staff working in health and welfare settings (Cowling, 1996, 1999) and by teachers (Bibou-Nakou, 2003).
- Expertise in child development and mother-child attachment – identified with regard to staff working in adult social care and mental health (Grunbaum and Gammeltoft, 1993; Kearney et al, 2000; Maybery and Reupert, 2006).
- Recognising and dealing with parental mental illness – identified by health visitors, school nurses and speech and language therapists (Iddamalgoda and Naish, 1995), paediatricians (Heneghan et al, 2006) and child welfare workers (Anderson and Venkataraman, 2003).
- Expertise in adult mental health – identified with respect to staff working in adult social care (Grunbaum and Gammeltoft, 1993; Maybery and Reupert, 2006) and by/with respect to child welfare professionals (Hetherington and Bairstow, 2001; Kearney et al, 2000; Gillam et al, 2003) and paediatricians (Horwitz et al, 2007).
- Skills to meet the parenting needs of their clients – identified with respect to community mental health professionals (Ackerson and Venkataraman, 2003) and adult mental health social workers (Kearney et al, 2000).
- Skills to identify which children are having difficulties coping with their parent's illness – identified by social work staff working in inpatient psychiatric settings (DeChillo et al, 1987) and with respect to adult mental health professionals (Grunbaum and Gammeltoft, 1993) and teachers (Fudge and Mason, 2004).
- Skills to work with whole families – identified by social work staff (Kearney et al, 2000).
- Knowledge of the types of services available to children – identified by staff working in adult mental health settings (Boyd et al, 2006; Maybery and Reupert, 2006) and paediatricians (Heneghan et al, 2006).

There is limited quantitative evidence about perceived levels of skills across the professional groups though, obviously, different groups identify different areas of expertise which are relevant to supporting children of parents with mental health problems (Maybery and Ruepert, 2006). A small scale UK-based survey (n=28) by Gillam et al (2003) explored adult mental health service staff's levels of confidence about working with children. They found that 10/28 (35 per cent) rated themselves as 'not very' or 'not at all' confident about working with children as service users, whilst 60 per cent (17/28) rated themselves as 'very confident'. Just one respondent rated themselves as 'totally confident'.

Staff time

A lack of time has been identified as a factor hindering adult mental health professionals' willingness to address the support and service needs of children (Maybery and Reupert, 2006). The same reason has been given by child health and welfare professionals in terms of mothers' parenting and/or mental health needs (Shepard, 2001; Horwitz et al, 2007).

Service delivery factors

Ways of working

A number of studies have noted that adult mental health services do not typically take account of the fact that many of their users will be parents too (Blanch et al, 1998). Questions about the welfare of the children and parenting issues are not raised by adult mental health staff and, as a consequence, parents do not access parenting support and children's support needs remain unmet (Blanch et al, 1998; Diaz-Caneja and Johnson, 2004).

On a different note, staff working in adult mental health participating in Gillam et al's (2003) research observed that the therapeutic approach taken within adult mental health can support or hinder children's access to services. Participants in this study believed that behavioural family therapy was only therapeutic intervention which systematically assessed and worked with 'whole families'.

Availabilty of worker

Access to a known person appears to be important if parents are going to feel able to ask for help. This factor was referred to by parents in terms trying to make contact outside of arranged appointments or visits (Hinden et al, 2002, 2005; Aldridge and Becker, 2003). In Aldridge and Becker's (2003) research parents describe how it takes courage to telephone a service, and that they only want to speak to a worker they knew and trusted.

Availability of services

Two different themes emerge from the literature in terms of availability of services.

First, a few studies (mainly of mothers) report that parents find access to mainstream community services and community psychiatric services difficult due to long waiting lists (Bassett et al, 1999; Gopfert et al, 1999; Stanley, 2003; Horwitz et al, 2007).

Second, parents report difficulties accessing services at times when they need them (Gopfert et al, 1999). More specifically, three pieces of research reported the need for services to be available outside regular office hours or usual patterns of contact. Thus, mothers participating in Bassett et al's (1999) research described the distress experienced on getting through to an answering service when they were seeking help from services. Similarly, Aldridge and Becker (2003) report families find it difficult when their named worker is not available when they telephone and a reluctance to divulge their difficulties to another worker. In the same vein, parents using outpatient services expressed the need for a system by which they could access support between appointments (for example, through a key worker) (Slattery, 2006). Adults who had lived with a parent with a mental health problem as children also reported they would have liked to have had a named worker who they could approach and who pro-actively contacted them to check on their situation (Gilbert et al, 2002).

Organisational factors

Case level mechanisms and procedures

Looking across the available evidence it would appear that there is no consistent practice in terms of whether or not adults admitted for inpatient psychiatric treatment are routinely asked about their parenting status and/or about the welfare of their children. It may happen consistently in one setting, on an *ad hoc* basis in another, and never somewhere else (De Chillo et al, 1987 (US); Gross and Semprevivo, 1989 (US); Iddamalgoda and Naish, 1995 (UK); Stormont et al, 1997 (UK); Montolui et al, 1999 (UK); Mandersib and McCune, 2004 (UK)). Where practice was *ad hoc*, no factors have been identified which increase the likelihood of health professionals enquiring about the presence of children or their welfare (De Chillo et al, 1987; Stormont et al, 1997), though Gross and Semprevivo (1989) (US) note that treatment teams do not always have contact with the child. Where inquiries are made about children, again research suggests that procedures are not routinely in place to ensure that any needs identified are recorded, addressed or referred on (Stormont et al, 1997; Montolui et al, 1999; Gross and Semprevivo, 1989).

In terms of evidence with regard to community services, findings from Gillam et al's (2003) (UK) small scale survey of staff working in adult mental health paints a similar picture. The majority of respondents reported there were no formal mechanisms for recording parental status and that children were not routinely assessed. Some workers reported conducting some sort of 'opportunistic therapeutic intervention', but only a small minority indicated taking a more planned approach. Aldridge and Becker's (2003) (UK) project looked specifically at young carers and found very few had received a formal needs assessment. Awareness of young carers' issues, and even the involvement of the young carer in discussions about the parent's care plan, did not appear to translate into the conduct of an assessment of the young carer's needs.

Participants in Blanch et al's (1998) statewide review of mental health services conducted in the US also reported that discharge plans do not routinely attend to parenting needs which would have implications for both for parents accessing parenting support and also, possibly, children accessing support services. A similar situation is reported by Iddamalgoda and Naish's (1995) review of mental health services for parents with mental health problems within a UK NHS trust. They found that the presence of children was not recorded on the discharge summary unless they were named as next of kin.

Eligibility criteria

A small number of studies report eligibility criteria to be a barrier to accessing services. In particular, attention is drawn to the fact that mental health services only accept referrals when the mental health problem is very severe or there was a crisis (Elliot, 1992; Gopfert et al, 1999; Stanley et al, 2003b; Slattery, 2006; Sheppard, 2001). Indeed, Stanley et al (2003) found that around a third of professionals taking part in their survey said they sometimes over-emphasised risk (harm to child or harm associated with severe mental health problem) in order to access resources. Families were also aware of the high thresholds operating for mental health services (Stanley et al, 2003b; Aldridge and Becker, 2003). Green et al (1999) report this meant that, although families recognised the early warning signs of a crisis, they cannot access the help needed to prevent the situation escalating. Families and professionals also report that mental health services are withdrawn once a crisis has passed (Green et al, 1997, 1999; Sheppard, 2001). A similar situation is reported with respect to child and family social work support, with staff reporting pressure to close cases once the child is no longer perceived to be at risk even if there may be on-going parenting or family support needs associated with a parent's mental health (Sheppard, 2001; Hugman and Phillips, 1993).

Coordination and collaboration between services

The lack of collaboration or poor coordination between services/agencies emerges as a key theme in the literature as a barrier to children and parents accessing services (Green et al, 1997; Blanch et al, 1998; Darlington et al, 2004; Darlington et al, 2005a, 2005b; Hetherington, 2001; Hetherington and Bairstow, 2001; Stanley et al, 2003a, 2003b; Ackerson and Venkataraman, 2003 (US)). Typically it concerns coordination between adult mental health services and children's services (but not education), parenting support services, and/or voluntary sector services. It is important to note that evidence with regard to the role of schools in supporting access to services was not identified. This may reflect current practice or may be an anomaly of the research so far conducted on this issue.

A number of studies report factors identified by stakeholders which are perceived as impeding or facilitating collaboration. Research carried out in the UK has identified the following barriers:

- A lack of information sharing protocols and strategies which, in addition, address the issue of patient confidentiality (Green et al, 1997; Iddamalgoda and Naish, 1995; Stanley et al, 2003a, 2003b).

- A lack of formal mechanisms or procedures between adult, child health and neighbourhood services to plan or implement joint strategies for assessment or intervention (Iddamalgoda and Naish, 1995; see also Blanch et al, 1998).
- Marginalisation of voluntary sector organisations (Green et al, 1997).
- Service led approach (as opposed to a needs led approach) makes joint working difficult (Green et al, 1997).
- Adult mental health services do not, in situations of serious mental illness, routinely involve child welfare services at an early stage (Hetherington and Bairstow, 2001).
- The lack of a preventative approach within child welfare services mean less likely to co-work with AMHS (Hetherington and Bairstow, 2001).
- Limited opportunities and lack of time to develop links and have more strategic discussions with other professional groups as any contact tends to happen during crises when the discussion is focused on a specific case (Hetherington and Bairstow, 2001).

Research on interagency working has also been carried out in the United States and Australia. Clearly it is important to acknowledge that the policy and organisational contexts are different, however it is worth noting that the research findings are similar. Thus a lack information-sharing, joint working systems and time and resources to develop such systems have also identified as barriers by US and Australian research (Blanch et al, 1998; Darlington et al, 2004, 2005). Additional barriers not specific to particular policy or organisational structures and therefore worth reporting here include:

- Limited knowledge about other services/professionals' legal and policy responsibilities, and a lack of motivation to gain that knowledge (Blanch et al, 1998; Darlington et al, 2005a).
- Problems defined and prioritised differently by different agencies, impeding communication and encouraging division rather than sharing of responsibility. (Blanch et al, 1998; Darlington et al, 2005a).
- Lack of role clarity, in particular who is the 'lead' (Darlington et al, 2004).
- Adult mental health teams refusing access to services/provide treatment on grounds of eligibility criteria (that is, severity of mental health problem).

Case managers: Research in the United States (Hinden et al, 2002, 2005) and Australia (Darlington et al, 2004) has found that case managers can improve families' access to services, both in terms of the level of service received and in terms of accessing additional support services (Darlington et al, 2004).

Hinden et al's work (2002, 2005) with mothers who had case managers identified the processes by which case managers supported/enabled access to other services, these included: improving understanding of what a service could offer; facilitating access to the service; acting as a care coordinator on behalf of the parent for all the services involved; and resolving antagonism between providers, and between providers and parents.

Other factors

As well as the more specialist support services, accessing mainstream or universal services can be difficult and some of the issues or difficulties described here are likely to transfer across to these services too. In addition, research by Stanley et al (2003a) found that mothers with mental health problems may feel out of place in mainstream services such as a women's centre.

Barriers and/or facilitators to using services

Introduction

In this section we report the barriers and facilitators to parents' and children's use of support services which have been identified by research. Again, as with the evidence on access, this is an incomplete listing of the barriers that may be encountered by families as they use services as it only describes barriers which, to date, have been identified by research.

Whilst synthesizing the evidence it was not always possible to unpick barriers impinging on parents' use of services, and those affecting children's use. Reasons for this include: inadequate reporting by the research; the fact that children are typically dependent on others (usually their parents) to enable them to physically get to or use a service; and/or one service may be being used by the parent and child and this has not been distinguished in the research.

A small number of papers (n=24) were identified which included evidence on barriers and/or facilitators to using services. The majority of these (n=16) concerned parents' views as service users, three reported research with professionals, and the same number drew on parents' and professionals' views. Audit data formed the basis of one paper and, finally, one paper described children and young people's views on their parents using services.

Eleven sets of factors have been identified as impacting on families' use of service in terms of their level and/or duration of engagement with services. These have been further collapsed into five over-arching sets of factors:

- Mental health factors
- Use-ability' factors
    - > Transport and childcare
    - > The 'fit' with existing schedules and demands on parents' time
- Acceptability factors
    - > Sensitivity to ethnicity
    - > Appropriateness of the setting
    - > The therapeutic approach
    - > Sensitivity to parents' other needs and priorities
    - > Parents' acknowledgement of the need for support

- Staff factors
  - The parent-professional relationship
  - Staff skills and expertise
- Other factors.

Mental health factors

The mental health of the parent was identified by three studies as impacting on parents' ability to use a service. All observed the impact of depression on engagement. Sheppard (2001) reported that a minority of mothers' participating in his study acknowledged that their depression affected their ability to engage with the service. Similarly, professionals participating in Boyd et al's (2006) research noted that low levels of motivation associated with depression would be a barrier to parents' being able to attend parenting support programmes. Finally, Baydar et al (2003) found that depression had a slight negative effect on engagement in a preventive parenting programme.

Parental mental health was also implicated in terms of the children's ability to use support services. Finkelstein et al (2005) explored the barriers to children being able to use support services and found that the mothers' pre-occupation with her own mental health could act as a barrier to engaging with support services for the child. Grunbaum and Gammeltoft's (1993) study of a small group of mothers with schizophrenia and their children found that mothers' paranoid delusions could result in a professional's involvement with a family being perceived by the mother as threatening (to their or their child's wellbeing) and leading them rejecting help and withdrawing their child from services.

'Use-ability' factors

Transport and child care

One mother described the process of getting to an appointment with her community psychiatric nurse as: 'trailing the kids all the way out and coming all the way back down' (Stanley, 2003a: 109). This vividly describes the logistical issues faced by parents trying to attend appointments without access to a car or child care. Boyd et al (2006) identified provision of transport, child care and food as important incentives to depressed mothers using and engaging with community mental health services.

It should be noted that researchers do not always link transportation issues to the difficulties of travelling with young (or disturbed) children on public transport. Having to make a journey and distance can both be barriers in themselves to using services (Bassett et al, 1999). The distance from parents' homes to their mental health service has been found to be associated with whether or not parents' continue to use a service (Hanrahan et al, 2005). Blanch et al's (1998) state wide review of mental health provision found that lack of transportation (for families living outside of cities) was a barrier to using services. Transportation was identified as a barrier to keeping appointments by 60 per cent of a sample of mothers (n=44) who had been referred to mental health services (Needleman et al, 1999). Finklestein et al (2005) found that transportation issues were reported to be the reason why fifty per cent of children did not complete a preventive intervention programme for children of mothers with mental health problems. Unfortunately neither of these studies unpick what they mean by transportation issues and may, therefore, include the difficulty of travelling on public transport with children. Finally, not all research has found that mothers report services are hard to get to. Mowbry et al's (2000) survey of mothers (n=379) using community mental health services in an urban area found that most did not report problems getting to services.

Slattery's (2006) survey of 44 mothers with severe and enduring mental health problems using community mental health services found that 43 per cent reported missing appointments due to childcare problems. Furthermore, just a quarter of the sample found it easy to organise childcare to cover their appointments. In addition to possible difficulties with arranging childcare, parents also report that services would be easier to use if the timing of appointments took account of child care arrangements or responsibilities (Hugman and Phillips, 1993; Bassett et al, 1999).

Where parents are having to take children to appointments or the appointment is for the child, geographical location (especially if the parent cannot access a car) can make it harder for families to use services (Hugman and Phillips, 1993; Thomas and Kalucy, 2002).

Slattery's (2006) research, which also included focus groups with mothers, sheds a different light on the difficulties associated with taking children to appointments. Mothers, especially those with pre-school children, described the difficulties of having a young child present during a consultation. They felt the child's presence changed the dynamics of the session, acted as a distraction and could, potentially, render the session useless. Some mothers reported getting distressed or feeling that they were being judged negatively when their child misbehaved. Mental health practitioners also identify a lack of crèche facilities impeding the benefit of attending therapeutic sessions (Stanley et al, 2003b). Diaz-Caneja and Johnson (2004) also report that a lack of crèche facilities was been identified by parents as making attending appointments or using day care services difficult. These sorts of experiences may in part explain why Slattery (2006) also found that, in spite of possible transportation difficulties, less than half of mothers (48 per cent) who participated in the survey phase (n=44) found home visits easier (33 per cent did not feel home visits were easier, 19 per cent were undecided), and that only 28 per cent said they would not like childcare when they attend appointments (44 per cent said they would like childcare; 28 per cent uncertain).

The 'fit' with existing schedules and other demands on parents' time

The changing, and sometimes, unpredictable nature of the lives of some parents with mental health problems was identified by parents and professionals as a barrier to using services. Alder's study of mothers using an outreach mental health service found that mothers identified the service's awareness of their busy and sometimes chaotic lives (by, for example, reminding parents close to the time about a forthcoming appointment) was a reason for continued engagement with the service (Alder, 2005).

Changes to parents' schedule of other commitments was the most common reason for attrition in Cardemil et al's (2005) study of low income Latino mothers attending a family skills coping programme. Cardemil et al also found scheduling difficulties precluded attendance at group sessions for other family members. Participants in Bassett et al's (1999) research with mothers of young children identified the time of day services were provided (for example, evening courses or meetings) made attendance difficult. Hinden et al (2002, 2003) also report that multiple appointments for the same time can impact of families' abilities to use services. The authors also report that care managers can alleviate this difficulty.

The notion of the way that conflicting demands on parents' time made scheduling appointments difficult was also observed by Beeber et al (2004) in their study of home-based interventions for mothers with depressive symptoms. However, the nuance of meaning was slightly different and was less about changes to schedules and more about unpredictability. They noted the chaotic nature of some families lives caused by frequent childhood illnesses, financial crises and highly conflicted relationships with partners. Parents' dependence on others for transport and other forms of support was also seen to act as a barrier to using services which adopted traditional appointment and clinic based therapies. The example was given of use of 'serendipitous resources' (p 575), such as opportunistically making the use of a lift to a supermarket, taking precedence over attending appointments.

Acceptability factors

Sensitivity to ethnicity

Four studies identified for the review report on issues of ethnicity and the acceptability of services. The inability of mental health services to respond to cultural diversity was identified as a barrier to using mental health services in Blanch et al's review of mental health services for women (in New York State) (Blanch et al, 1998). Hussain and Gerrard's (2001) evaluation of a mental health outreach support project for Asian women notes that mothers valued the fact that the service was Asian led. Interestingly, this outreach service led to increased take-up of generic services. The need for culturally sensitive counselling services and bilingual staff was raised during interviews with mothers conducted as part of Stanley et al's study of the support needs of mothers with serious mental health problems (Stanley et al, 2003a, 2003b). Allowing group members to share religious and spiritual needs was identified by mothers as a reason for continued engagement with an outreach support project (Alder, 2005).

The appropriateness of the adult mental health setting

The appropriateness adult mental health settings for children (for example, when attending appointments with a parent, or visiting a parent during an inpatient episode) was an issue identified by a number of studies. Some studies have revealed parents' concerns about their child being disturbed or upset by being exposed to inpatient adult mental health wards (Garley et al, 1997; Thomas and Kalucy, 2002; Diaz-Caneja and Johnson, 2004). A separate issue is the way that adult mental health settings do not cater for children's needs by, for example, not providing toys and other facilities in waiting rooms (Hugman and Philips, 1993, Handley et al, 2001), and a lack of privacy and/or family space for children visiting parents on inpatient wards (Hugman and Phillips, 1993; Hawes and Cottrell, 1999;Thomas and Kalucy, 2002). One professional participating in Iddamalgoda and Naish's (1995) study believed there was a direct link between the lack of facilities for young children and parents failing to keep appointments.

Fudge and Mason (2004) explored children and young people's (aged 7 to 20 years) experiences of visiting their parents. These children and young people also identified the need for privacy and 'family friendly' visiting space. Other improvements suggested included friendlier staff who took time to talk to them, a more comfortable or homely environment, and a system by which they could telephone their parents.

Mothers' experiences as inpatients

A separate issue concerns mothers' experiences of being inpatients. Mothers participating in Green et al's (1997) in-depth study of their experiences as service users reported a lack of privacy (even on mixed sex wards), experiencing thefts, and witnessing or being subject to sexual or physical assaults. Thomas and Kalucy (2002) report a common complaint was the lack of things to do on the ward.

The therapeutic approach

A subset of evidence identified for this review question concerned families who had experienced voluntary or involuntary hospitalisation of a parent. Two studies of mothers with severe mental illness (Green et al, 1997; Montgomery, 2006) report that parents valued services which helped to sustain family life and avoided the need for separations caused by hospitalisations or the children being taken into care. Another study reports the difficulties parents have reconciling their needs against their children's distress caused by their absence from the family home (Thomas and Kallucy, 2002). On the other hand, Garley et al's (1997) research with children of parents with mental illness notes that overall, participants perceived their parents' hospitalization positively – either because it meant that they were being cared for by a more stable member of the family and/or it was a relief to know their ill parent was being cared for.

Aside from hospitalisation, two studies report that a parents' or child's dislike of the therapeutic approach was a reason for poor engagement (Singer et al, 2000; Cardemil et al, 2005). This issue is not explored in any depth by either study. For example, Singer et al (2000) simply reports *ad verbatim* the reasons given for spasmodic attendance or failure to attend appointments, for example: '[my child] didn't like it' (family therapy), or '[my child] found it difficult' (sessions with child psychiatrist).

Sensitivity to parents' other needs and priorities

Interventions or forms of support which addressed parents' perceived needs or desired outcomes (aside from mental health issues) were viewed positively by parents and seen as the sorts of services they wanted to use. Indeed, Schwab et al's (1991) statewide ethnographic evaluation of community mental health centres found that parents resented services which were insensitive to their concerns about their children and parenthood. Similarly, Slattery (2006) reports mothers' exasperation with mental health services in terms of meeting their parenting needs, which they prioritised over their mental health needs. The sorts of support needs identified by parents include: advice on housing and financial problems, parent skills training, alternative therapies, peer support, respite, peer support for children (Green et al, 1997; Adler, 2005; Nicholson and Henry, 2003; Hugman and Philips, 1993; Slattery, 2006; Boyd et al, 2006)[11].

Parents' acknowledgement of need for mental health support

A small number of studies found that the extent to which parents accept they have a mental health problem appears to affect the level of engagement following referral to a service (Boyd et al, 2006; Singer et al, 2000). Swartz et al (2006) found that an initial 'engagement' session which focused on helping parents' identify specific treatment needs proved a valuable way of ensuring depressed mothers engaged with a brief psychotherapeutic intervention.

Hugman and Philips (1993) research with users of mental health services found that a focus by professionals on mental health issues was only acceptable when parents' explicitly desired this. In addition, Schwab et al's (1991) work suggests that a mental health intervention which addresses parents' own perceived mental health needs supports engagement.

The degree to which parents' recognise and accept of their children's needs was also been found in one study to be a factor facilitating or hindering the child joining or maintaining attendance of a therapeutic group (Finkelstein et al, 2005).

Staff factors

The parent-professional relationship

Given the high degree of anxiety about losing custody of their children through their involvement with services, it is not surprising that, on the basis of the evidence available, the nature of the relationship between a parent and professional appears to be associated with levels of engagement. A number of studies found that that trust (in the professional) is implicated by parents as a factor affecting the level to which a parent is prepared to engage with and/or maintain contact with services (Green et al, 1997; Finklestein et al, 2005; Stanley et al, 2003a, 2003b; Wang and Goldschmidt, 1996).

However, aside from this notion of trust, while a number of studies describe the sort of relationship parents say they would like or value with professionals, just two studies (Alder, 2005; Anderson et al, 2006) explicitly explore its potential impact on whether or not a parent (or their child) continues to use a service. Alder's (2005) study sought the views of mothers using a voluntary sector outreach project (but who had failed to engage with statutory services) about why they continued to attend the project. Honesty and openness of staff (especially with respect to their child protection responsibilities) was identified by mothers as a reason for continued engagement. Anderson et al's (2006) study of 127 low income mothers with mental health problems who were bringing their children for behavioural health care noted parents reporting a lack of partnership with professionals were sceptical and distrusted clinicians and the service system. This, in turn, led to alienation from services and an unwillingness to return.

As noted earlier, there is other research simply reporting the sort of relationship parents want with professionals and/or how they want to be treated but which did not research. Intuitively, these sorts of factors would seem to influence whether or not parents continue to use services, and will therefore be briefly summarised. Thus, features of their relationship valued by parents reported in these pieces of research include: honesty (Hinden et al, 2002, 2005); respect (Nicholson and Henry, 2003); strengths acknowledged (Nicholson and Henry, 2003; Hinden et al, 2002, 2005; Hugman and Phillips, 1993); compassion (Green et al, 1997); non-judgemental approach (Swartz et al, 2006; Hugman and Phillips, 1993; Montgomery et al, 2006); and proper involvement in meetings and decision-making (Stanley et al, 2003a, 2003b).

Staff skills and expertise

A small number of studies identified staff skills and expertise in working with people with mental health issues as a factor affecting whether or not parents continued to use support services, or the degree of their engagement with them. Sheppard (2001) found that a lack of awareness on the part of (generic) social workers of the effects of depression on confidence and self-esteem led to break downs in the partnership between mothers and social workers. Mothers' participating in Montgomery et al's (2006) depth study of mothers with severe mental illness report a lack of understanding among health care professionals of the distress they experience because their mental health is impeding their ability to parent. This was seen to affect the relationship mothers had with these professionals. Finally, Grunbaum and Gammeltoft (1993) report social work staff's lack of experience of working with parents with schizophrenia meant they did not know how to respond in situations where mothers were withdrawing themselves and their children from services.

Other barriers or facilitators to using services

Other barriers or facilitators to using services were identified by a just a couple or a single study. Shachnow (1987) reports that familiarity with the building in which a service located and a comfortable ambience helps to increase the appeal of a service.

Ensuring a parent could use a mental health service without the local community knowing was identified as facilitating use of a service by two pieces of research (Wang and Goldschmidt, 1996; Swartz et al, 2006).

One study identified the perceived effectiveness of an intervention as a reason why parents do, or do not, continue to use a service (Singer et al, 2000).

Finally, Sheppard's (2001) study of social work involvement with depressed mothers notes persistence on the part of the professional was something valued by parents and, intuitively, would appear to relate to levels of engagement or attrition. Wang and Goldschmidt (1996) interviews with psychiatric inpatients revealed a similar theme, with participants stating that professionals should keep in contact even if parents reject help.

Conclusions

An initial task for the reviewers was to define the notions of access and acceptability. In terms of access, the existing conceptual literature was found to have been developed on the basis of access to certain types of health services and did not, therefore, fully accommodate the processes by which parents with a mental health problem and their families may be accessing support services. A model was therefore developed to act as framework by which the issue of access could be understood and, in particular, the various points within the access process at which individual and organisational/service factors may intervene.

Similarly, a closer inspection of the way in which 'acceptability of services' is defined in the literature revealed a lack of consensus and much ambiguity. Indeed, the term acceptability of services was rarely encountered in the literature. There was, however, a clear, but small, body of evidence which provided insight into factors which affect whether or not a parent or family member engages with or actually uses a service once it has been accessed. This significantly broadened what might be understood by acceptability of services but did allow a more complete picture of what is currently known about factors which support or hinder use of services to be reviewed and presented.

The evidence reviewed in this report was wide-ranging in terms of topic and quality. The great majority of the research was concerned with mothers or ‘parents’. No research was found relating exclusively to fathers. In addition, whilst many studies were interested in support services for children, very few had actually directly involved children in the research.

In addition to these conceptual ambiguities and the bias in the samples represented in the research, there are further reasons why the current evidence base is weak and caution therefore needs to be exercised in drawing any conclusions. First, there are difficulties with the quality or robustness of the evidence base. Whilst no systematic process of quality appraisal has been applied to the evidence, the quality of reporting, particularly with regard to sampling, the nature of the sample, the representativeness of the sample and data analysis, was not of a consistently high standard. In addition, many of the studies had small sample sizes. Second, evidence with respect to a particular sub-topic or issue is often confined to a handful of, sometimes diverse, research projects, some of which are of questionable quality. Finally, the focus of research was predominantly on mental health service support and parenting support for mothers. Evidence with regard to other support services was either restricted to one or two studies or, if published, was not identified by the searches. Thus the current evidence base is skewed towards evidence with regard to access and acceptability of **certain** support services, as opposed to any support service which may be used by parents with mental health problems.

With these limitations in mind, the review of the evidence led to the identification of a number of factors which appear to act as barriers or facilitators to parents with mental health problems and their children accessing and then using support services, see Figure 3.2.

Figure 3.2: Factors identified by the review as acting as barriers or facilitators to parents with mental health problems and their families accessing and using services

<table>
<tr><th colspan="2">BARRIERS AND FACILITATORS TO ACCESSING SERVICES</th></tr>
<tr><th>Individual factors</th><th>Service/organisational factors</th></tr>
<tr><td>Socio-demographic factors

Race/ethnicity factors

Knowledge and belief factors
o <i>Understanding and acceptance of mental health problem</i>
o <i>Individual beliefs about help-seeking</i>
o <i>Knowledge of services</i>
o <i>Fears about losing custody</i>
o <i>Stigma</i>

‘Life circumstance’ factors
o <i>Conflicting demands on parents</i>
o <i>The presence of other stresses and difficulties</i>

Mental health factors

Other</td><td>Staff factors
o <i>Perceived roles and responsibilities</i>
o <i>Professional’s view of the case</i>
o <i>The relationship between parent and professional</i>
o <i>Staff skills and expertise</i>
o <i>Staff time</i>

Service delivery factors
o <i>Ways of working</i>
o <i>Availability of worker</i>
o <i>Availability of services</i>

Organisational factors
o <i>Case level mechanisms and procedures</i>
o <i>Eligibility criteria</i>
o <i>Coordination and collaboration</i>

Other</td></tr>
<tr><th colspan="2">BARRIERS AND FACILITATORS TO USING SERVICES</th></tr>
<tr><td colspan="2">Mental health factors

‘Use-ability’ factors
o <i>Transport and childcare</i>
o <i>The “fit” with existing schedules and demands on parents’ time</i>

Acceptability factors
o <i>Sensitivity to ethnicity</i>
o <i>Appropriateness of the setting</i>
o <i>The therapeutic approach</i>
o <i>Sensitivity to parents’ other needs and priorities</i>
o <i>Parents’ acknowledgement of the need for support</i>

Staff factors
o <i>The parent-professional relationship</i>
o <i>Staff skills and expertise</i>

Other</td></tr>
</table>

One of the clear patterns emerging from the evidence is that strategies to improve access and/or to ensure parents or their children continue to use services need to intervene in a number of different ways:

- At an organisational or strategic level.
- In terms of services provided and the way they are delivered.
- In the way that individual staff work, their skills and the way they relate to service users.

In addition, the evidence would suggest that services need to work more holistically with families. The lack of collaboration and service coordination, ambiguities with regard to roles and responsibilities mean that needs remain unmet and families fall through the ‘service net’.

The evidence also points to the need for services to take greater account of parents’ priorities and desired outcomes, their perceptions as to the cause of their mental distress, and to be more sensitive to the sometimes complicated, chaotic and straitened lives some of these families lead. In particular, the findings from some research suggests that, among families where the parents’ mental health problem is not very severe or at crisis, other more pressing needs are being experienced which the family wants to or has to deal with. In these situations, solely dealing with mental health problems could be seen as merely ‘tinkering at the edges’.

In conclusion, at best this review should be used as a resource which alerts readers to the possible range of processes and factors at play as parents with mental health problems and their families access and use services. It is important to bear in mind that there will be, as yet, unidentified or unreported factors which are impacting on families’ access to and use of support services. In addition, there are factors which, from other practice arenas, are known as important but which are under-researched in terms of support services for parents with mental health problems (for example, race and ethnicity).

Chapter 4 Outcomes of services or interventions for parents with mental health problems and their families: results from the randomised controlled trials

Introduction

In this chapter we review the findings from the 12 randomised controlled trials (RCTs) – reported in 13 papers – that were identified and included in this section of the review. Results from studies that used other comparative designs are described in Chapter 5.

As we described earlier, deciding exactly how many trials were represented in the papers we identified was problematic. In terms of what follows, we believe that we are reporting results from identified **single** trials, regardless of the number of times they have reported interim results. Thus the papers related to the Beardslee trial of a psycho-educational intervention (Beardslee et al, 2003) and the two papers related to the Cichetti trial of toddler and parent psychotherapy (Cichetti et al, 2000; Toth et al, 2006) are included because they report the most recently published findings based on the most complete numbers of trial participants. The Clarke et al (2001 and 2002) papers are reports of separate **arms** of a trial that recruited and screened via a single route. However, as randomisation was carried out separately for each arm, after subjects had been screened, and the target groups for the two studies were different, we have treated these as separate trials here.

Description of the service or intervention

Table 4.1 summarises information about the services or interventions evaluated in the RCTs, the control conditions that they were compared against, for whom they were intended, and other details of their delivery or organisation. Further details about the nature and intensity of the interventions are included at Appendix 6.

Intervention and control conditions

Five trials evaluated some form of cognitive behavioural therapy (CBT), either alone or in combination with another intervention; three a psycho-educational intervention (in one case in conjunction with CBT); two a ‘mother and child’ ward in an in-patient setting; one a parent training programme; one toddler and parent psychotherapy; and one a nurse-delivered, depressive symptom intervention.

Table 4.1: Description of service or intervention

Study	Nature of service or intervention	Control condition(s)	Who for	Mental health problem	How defined	Who delivers	Setting	Aim	Country
Baydar et al, 2003	Parenting training programme plus Headstart	Headstart alone	Low income mothers	‘At risk’ for maternal mental health problems	Assessment of five parenting risk factors associated with mental health risk	Certified parenting clinic leader plus Headstart family service worker	School	Improve parenting skills and thereby prevent child-problem behaviour and maternal MHPs	USA
Beardslee et al, 2003	Clinician-facilitated psycho-educational intervention	Lecture-based psycho-educational intervention	Parents and children aged 8-15	Parental depression	Episode of mood disorder in previous 18m	Psychologists, social workers, nurses – all specifically trained	Clinic	Increase understanding of and communication with children about PMHPs	USA
Beeber et al, 2004	Depressive symptom intervention	Usual care, Early Headstart waiting list control group	Mothers in Early Headstart programmes with children 6 weeks to 30m	Maternal depression	Screened for ‘depressive symptoms using CES-D ≥ 16	Master’s ‘prepared’ mental health nurses	Home	Improve: strategies for dealing with depressive symptoms, problematic life issues, access to social support while mother is experiencing symptoms of depression	USA
`	Video-based psycho-educational intervention	Waiting –list control group	Families where at least one parent has depression and there is at least one child aged 7-12	Parental depression	Chart diagnosis of depression and at least one ‘treatment visit’ in previous 12m	Self-administered	Home	Decrease parental concern about children, support other family members, increase communication with children about PMHPs	USA

Study	Nature of service or intervention	Control condition(s)	Who for	Mental health problem	How defined	Who delivers	Setting	Aim	Country
Clarke et al, 2001	Cognitive behavioural therapy	Usual care, including non-study mental health care	‘At risk’ children aged 13-18 of depressed parents	Parental depression	After initial screening F-SADS and structured interview confirmed current presence or absence of parental DSM-III-R symptoms. Children assessed using K-SADS-E to obtain DSM-III-R ‘sub-syndromal’ diagnoses or CES-D scores ≥24	Master’s level therapists	Clinic offices	Prevent depression in at risk adolescents by teaching cognitive restructuring techniques to identify and challenge irrational, unrealistic or overly negative thoughts, with special focus on beliefs related to parental depression	USA
Clarke et al, 2002	As above	As above	Depressed children aged 12-18 of depressed parents	Parental and child depression	Parents screened as above. Children included if K-SADS-E indicated DSM-III-R diagnosis of major depressive disorder and/or dysthymia	As above	As above	As above	USA

Study	Nature of service or intervention	Control condition(s)	Who for	Mental health problem	How defined	Who delivers	Setting	Aim	Country
Nickel et al, 2005	In-patient, psychiatric psychotherapeutic treatment in mother and child ward	In-patient, psychiatric psychotherapeutic treatment in normal ward (children not admitted)	Mothers aged 20-30 with 1 or 2 children aged 5-12	Maternal depression	Clarification of admission diagnosis done with SCI and II classified to ICD-10 diagnostic codes	Psychiatrists and psycho-therapists	In-patient clinic	Treatment of mothers with their children accompanying them	Germany
Peden et al, 2005	Cognitive behavioural therapy	Not specified	Low income single mothers living with at least one child 2-6 years	'At risk' for maternal depression	Screened for 'depressive symptoms' using BDI (≥10) or CES-D (≥16)	Master's educated psychiatric nurses experience in leading groups	Not stated	Reduce depressive symptoms, negative thinking and chronic stressors	USA
Sanders et al, 2000	Cognitive behavioural therapy plus behavioural family intervention	Behavioural family intervention alone	Mothers with children with behavioural problems	Maternal major depression	Met DSM-IV criteria for major depression based on structured diagnostic interview	Therapists trained in the intervention – clinical psychologists, trainee clinical psychologists or others with clinical experience with children and families	Clinic and home	Change parenting techniques and reduce mothers' depression	Australia
Toth, 2006 Cichetti, 2000	Toddler Parent Psychotherapy	Not specified for depressed control group. Additional comparison group of non-depressed mothers	Mothers with child aged c. 18m	Maternal major depression	DIS III-R for diagnosis of major depression at some time since birth of child	Master's or PhD level therapists	Not clear	To optimise the mother child relationship and thereby promote toddler attachment security	USA

Study	**Nature of service or intervention**	**Control condition(s)**	**Who for**	**Mental health problem**	**How defined**	**Who delivers**	**Setting**	**Aim**	**Country**
Tritt et al, 2004	In-patient, psychiatric psychotherapeutic treatment in mother and child ward	In-patient, psychiatric psychotherapeutic treatment in normal ward (children not admitted)	Mothers aged 20-35 with 1 or 2 children aged 5-12	Maternal generalised anxiety disorder	Structured clinical interviews (SCID I and II) and assigned to ICD-10.45	Not stated explicitly	In-patient clinic	Treatment of mothers with their children accompanying them	Germany
Verduyn et al, 2003	Cognitive behavioural therapy and psycho-education	a) Mother and toddler group b) no intervention	Mothers with pre-school children with behaviour problems	Maternal clinical depression	Screened using BDI (≥15), then assessed using SCI for DSM-IV and Hamilton Rating Scale for Depression	Clinical psychologists with support from nursery nurses	Local health centre	Address maternal depression, increase understanding of children's developmental needs; change parenting skills	UK

Abbreviations

BDI	Beck Depression Inventory
DIS-III-R	Diagnostic Interview Schedule III-R
SCI	Structured Clinical Interview
DSM-III-R	Diagnostic and Statistical Manual of Depressive Disorders (3rd edition, revised)
DSM IV	Diagnostic and Statistical Manual of Depressive Disorders (4th edition)
ICD	International Classification of Disease
CES-D	Center for Epidemiologic Studies – Depression Scale
PMHPs	Parents with mental health problems

Control conditions varied substantially and in some places it is difficult to classify whether or not the control should be considered as a 'usual care' condition or not. Four trials clearly compared one form of specialist, supportive intervention with another – for example, two different forms of psycho-education (Beardslee et al, 2003); a behavioural family intervention with or without CBT (Sanders et al, 2000); inpatient treatment with or without co-admission of children (Nickel et al, 2005; Tritt et al, 2004). Further, two trials added an element to a pre-existing, mainstream intervention; a parent training programme with and without Headstart (Baydar et al, 2003) and a depressive symptom intervention with or without Early Headstart (Beeber et al, 2004). However, half the trials had 'no intervention' control conditions. These were the studies of:

- Butler et al (2000), where a waiting list control design was used and the controls eventually received the intervention.
- Verduyn et al (2003), which had both placebo (a mother and toddler group) and no intervention control conditions.
- Toth et al (2006); Cichetti et al (2000), which had a 'no intervention' control condition for depressed mothers and a comparative group of non-depressed mothers.
- Clarke et al (2001, 2002), where the control groups received 'usual care'[12].
- Peden et al (2005) where the control condition was not specified.

The nature of the control conditions in these trials is important because of the real possibility of placebo effects in this area of research. In other words, subjects respond to an intervention, not necessarily because it is **that particular intervention**, but because they would respond to any kind of input. In a trial of a drug, this problem is dealt with by having a placebo condition – those randomised to the study condition are given an active drug while those randomised to the control condition are given a 'drug' that looks in every way like the active drug but is, in fact, inactive.

Controlling for possible placebo effects is more difficult in trials that are comparing models of care, as in this review. Only one trial tried to deal with possible placebo effects (Verduyn et al, 2003); one control group attended a mother and toddler group and another received no intervention at all. In such trials, ensuring that the intervention and the placebo are otherwise comparable can be challenging. In the Verduyn et al (2003) trial, for example, the mother and toddler group ran at the same frequency as the CBT group, used the same staffing ratio, had the same facilities available, and included 'informal, non-directed group discussion of problems raised by mothers' (p 344) and comparable play opportunities for the children. When successfully achieved, a design of this sort also opens up the possibility of showing that the 'new' intervention is actually no better than something that already exists – in this case, a mother and toddler group.

Aims and focus of the intervention

Six interventions aimed to treat or reduce parental mental health problems, three specifically addressed aspects of parenting behaviour or skills, three aimed to increase parental understanding about their children and two to improve communication between parents and their children about PMHPs. Other aims included supporting other family members (1), preventing or treating depression in adolescents with depressed parents

(2), optimising mother child attachment (1) and improving access to social support during depression (1). As these figures suggest, some interventions had multiple aims.

All but one of the trials was concerned with parental depression or risk of depression (the other was concerned with anxiety disorder) and eight were aimed at mothers, rather than 'parents'. Two trials (Clarke et al, 2001, 2002) were concerned with both depressed parents and their children who were depressed or at risk of depression, and two (Sanders et al, 2000; Verduyn et al, 2003) with depressed mothers who had children with behavioural problems.

The ages of the children varied; the youngest were in the Beeber et al (2004) study (6 months to 30 months) and the oldest in the two Clarke et al trials (12-18 years). Only one study (Sanders et al, 2000) did not specify the ages of the children included.

In the 11 trials aimed at parents with depression, various definitions of depression were used, with little consistency across the studies, even where similar measures or methods of assessment had been used. For example, Butler et al (2000) included parents where a review of medical charts showed a diagnosis of depression and at least one 'treatment visit' to a primary care provider in the previous 12 months. By contrast, Verduyn et al (2003) used a screening tool (the Beck Depression Inventory, BDI, using a 'cut-off' score of ≥ 15) and then the Structured Clinical Interview to assess mothers' depressive symptoms against an internationally recognised diagnostic tool. In two trials, the focus was on mothers 'at risk' of depression; in one case assessed by positive responses to five 'parenting risk factors associated with mental health risk' (Bayder et al, 2003) and in the other (Peden et al, 2005) by screening with the BDI or the Center for Epidemiological Studies – Depression Scale (CES-D) and using a 'cut-off' score (≥ 10 and ≥ 16 respectively).

In total, five of the 12 trials (including the one about generalised anxiety disorder) clearly state that they carried out formal assessment of mental health status based on a structured clinical interview and recognised diagnostic criteria (Tritt et al, 2004; Verduyn et al, 2003; Clarke et al, 2001, 2002; Nickel et al, 2005). Sanders et al (2000) reported using a 'structured intake interview' but it is not clear what this was or who did it.

Service delivery and organisation

One trial (Butler et al, 2000) evaluated an intervention that was self-administered – a video-based psycho-educational resource. The majority of the other interventions were delivered by psychologists (mentioned in three), 'therapists' (mentioned in five), and mental health nurses (mentioned in two), with some interventions involving more than one type of professional. The in-patient model of care (Tritt et al, 2004; Nickel et al, 2005) involved psychiatrists and psychotherapists, although the model of care being evaluated was co-admission of children to a mother and child ward; little detail was given about how this was actually achieved in practice.

The settings for the interventions were also varied; three involved home delivery in whole or part, four involved ‘out-patient’ or primary care settings, two an in-patient setting, and one school setting. In two trials, the setting for the intervention was not mentioned or was not clear.

Location

Only one trial (Verduyn et al, 2003) was in the UK. Two (of the same intervention but with different patient groups) were in Germany (Tritt et al, 2004; Nickel et al, 2005), one in Australia (Sanders et al, 2000) and the remainder in the USA.

Outcomes reported

Table 4.2 summarises the outcomes reported in the 13 papers associated with the 12 trials. As this shows, the outcomes that the studies focussed on were varied: effect on parental mental health (six trials), parents’ self-reported response to the intervention (four), the psychological health or well-being of children (two), children’s behaviour (four), some other aspect of outcomes for children (three), parenting behaviour (three) and mother-child relationships (one). No trial reported information on the costs of the intervention.

Outcomes for parents

Parental mental health and well-being

Table 4.3 summarises findings from the six trials that reported parental mental health problems or well-being as an outcome.

Depressive symptoms

Five of these trials were concerned with depressive symptoms. Two trials (Sanders et al, 2000; Verduyn et al, 2003), both involving CBT with depressed mothers with children with behavioural problems, found no difference in levels of measured parental depression at final follow-up. One of these trials (Verduyn) had a placebo condition as well as a ‘no treatment’ control group. The other (Sanders) compared behavioural family intervention with or without the addition of CBT (and had equalised the amount of intervention received in both groups).

Table 4.2: Outcomes reported in RCTs of services/interventions to support PMHPS and their families

Study	Parental mental health	Parents' self-reported response to intervention	Other outcomes for parents	Psychological status of child	Child behaviour	Other child outcomes	Parenting behaviour	Mother-child relationship
Baydar et al, 2003							✓	
Beardslee et al, 2003		✓			✓	Understanding of parent's condition		
Beeber et al, 2004	✓						✓	
Butler et al, 2000		✓	Access to health services			Functioning at home and school		
Clarke et al, 2001				✓	✓			
Clarke et al, 2002				✓	✓			
Nickel et al, 2005	✓	✓						
Peden et al, 2005	✓							
Sanders et al, 2000	✓		Level of social support		✓		✓	
Toth, 2006; Cichetti, 2000						Cognitive development		✓
Tritt et al, 2004	✓	✓						
Verduyn et al, 2003	✓				✓			
Total	6	5	2	2	6	3	3	1

Table 4.3: Outcomes reported in trials reporting measures of parental mental health problems

Study	Intervention/ control condition	Measure used	When measured	Results for intervention group Mean (SD) *	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison -statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/ 3 and EPOC/6
Depression									
Sanders et al, 2000	Cognitive Behavioural Family Intervention / Behavioural Family Intervention	BDI (Mothers)	Baseline	21.72 (9.31)	18.82 (10.33)	-			1/0
			Post intervention	8.22 (8.79)	10.29 (7.02)	-			
			6m follow-up	6.61 (10.71)	11.24 (10.11)	-	F=2.57, ns	F(2,32)=24.35, p≤.0001	
		BDI (Fathers)	Baseline	13.25 (8.21)	5.82 (4.92)	-			
			Post intervention	8.88 (8.95)	3.02 (2.98)	-			
			6m follow-up	8.75 (9.24)	2.82 (1.83)	-	F=2.57, ns	Not reported, said to be ns	
Verduyn et al, 2003	Cognitive Behaviour Therapy/mother and toddler group/no intervention	BDI	Baseline	25.5 (7.6)	26.8 (9.1)	24.6 (8.4)			2/3
			Post intervention	17.6 (11.1)	18.7 (9.4)	18.9 (10.2)			
			6m follow-up	16.9 (10.4)	15.8 (13.0)	18.3 (10.7)			

Study	Intervention/ control condition	Measure used	When measured	Results for intervention group Mean (SD) *	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison -statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/ 3 and EPOC/6
			12m follow-up	14.7 (8.6)	15.1 (10.5)	16.6 (9.4)	F (2,67) =0.11 (with pre-intervention scores as co-variates), p=.90	Post-hoc within group analyses: intervention group t=4.41, df=39, p<.001; Control group 1 t=4.36, df=30, p<.001 Control group 2 t not reported, ns	
		HAM-D	Baseline	13.8 (4.0)	14.5 (5.3)	14.0 (4.4)			
			Post intervention	9.5 (5.6)	9.6 (6.0)	11.2 (6.8)			
			6m follow-up	9.3 (5.4)	9.3 (8.7)	11.7 (9.2)			
			12m follow-up	9.1 (7.7)	8.4 (7.0)	8.7 (7.2)	F (2,68)=.68 (with pre-treatment scores as co-variates) p=.51	Post-hoc within group analyses: Intervention group t=4.01, df=39, p<.001; Control group 1 t=3.67, df=30, p=.001 Control group 2 t not reported, ns	

Study	Intervention/ control condition	Measure used	When measured	Results for intervention group Mean (SD) *	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison -statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/ 3 and EPOC/6
Peden et al, 2005	Cognitive-behavioural group/ no intervention	BDI	Baseline	20.4 (7.5)	-	19.5 (7.0)			1/1
			1m	13.0 (9.7)	-	16.2 (8.1)			
			6m	11.8 (10.4)	-	14.9 (9.5)	ANCOVA Group main effect F=7.9, p<.01; Time main effect F=1.7, ns; Interaction F=<0.1, ns		
		CES-D	Baseline	25.2 (9.5)	-	24.3 (8.0)			
			1m	16.7 (10.2)	-	21.9 (11.0)			
			6m	15.0 (10.7)	-	18.2 (11.6)	ANCOVA Group main effect F=7.6, p<.01; Time main effect F=6.1, ns; Interaction F=1.1, ns		
Beeber, 2004	Depressive symptom intervention/ Headstart	CES-D	Baseline	34.38 (9.47)	-	25.5 (6.99)			3/3

Study	Intervention/ control condition	Measure used	When measured	Results for intervention group Mean (SD) *	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison -statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/ 3 and EPOC/6
			8 weeks	16.75 (12.12)	-	23.13 (8.98)	Baseline to 8 wks F[1,14] =7.426, p=.016		
			16 weeks	17.25 (17.87)	-	27.25 (9.38)	Baseline to 16 wks F[1,14] = 11.859, p=.004 Repeated measures ANOVA, Wilks lambda group by time interaction, F[2,13] = 6.395, p=.012		
Nickel et al, 2005	Mother and child ward/ normal ward	BSI	Study entry	22.9 (2.5)	22.5 (2.2)	-			1/4
			4 weeks	21.8 (1.4)	18.3 (1.5)		DF (difference in end points) =2.0, p=.004, 95% CI (0.3 to 3.3)		

Study	Intervention/ control condition	Measure used	When measured	Results for intervention group Mean (SD) *	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison -statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/ 3 and EPOC/6
			6 weeks	15.5 (3.1)	14.9 (4.1)		DF (difference in end points) = .02, p=.57, 95% CI (-0.6 to 1.0)		
Anxiety									
Tritt et al, 2004	In-patient, psychiatric psychotherapeutic treatment in mother and child ward	SCL-90-R Anxiety Score	Study entry	76.1 (2.9)	76.3 (3.0)				2/3
			6wk	66.2 (7.2)	66.9 (8.8)		Mann-Whitney U value not reported, p=.63 Difference of end points between groups = -9.9 and -9.4, 95% CI [-2.0 to 1.0]		
		SCL-90-R Global severity of symptoms	Study entry	72.2 (3.4)	72.9 (3.7)				

Study	Intervention/ control condition	Measure used	When measured	Results for intervention group Mean (SD) *	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison -statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/ 3 and EPOC/6
			6wk	65.3 (7.3)	62.0 (10.4)		Mann-Whitney U value not reported, p=.15 Difference of end points between groups = -6.9 and -10.9, 95% CI [-1.4 to 9.4]		
Negative outlook									
Sanders et al, 2000	Cognitive Behavioural Family Intervention/ Behavioural Family Intervention	Automatic thoughts questionnaire	Baseline	264.13 (179.98)	202.56 (111.44)	-			
			Post-intervention	92.50 (95.41)	110.56 (67.67)	-			
			6m	88.62 (104.18)	114.81 (95.12)	-	F=1.61, ns	Main effect for time F[2,29] =15.67, p≤.0001	1/0
Peden et al, 2005	Cognitive behavioural therapy	Crandall Cognitions Inventory	Baseline	53.0 (23.1)	-	54.2 (21.8)			1/1

Study	Intervention/ control condition	Measure used	When measured	Results for intervention group Mean (SD) *	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison -statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/ 3 and EPOC/6
			1m	35.8 (23.8)	-	46.1 (26.0)			
			6m	31.7 (26.3)	-	38.9 (25.8)	ANCOVA Group main effect F=7.0, p<.01 Time main effect F=7.5, p<.01 Interaction F=1.2, ns		
Stress									
Peden et al, 2005	Cognitive behavioural therapy	ESI	Baseline	24.7 (9.3)	25.6 (10.0)				1/1
			1m	17.3 (9.0)	22.1 (10.6)				
			6m	15.2 (7.9)	19.7 (10.0)		ANCOVA Group main effect F=8.1, p<.01 Time main effect F=7.0, p<.01 Interaction F-0.1, ns		

* In all measures reported above, a reduction in score indicates an improvement in the condition or symptom being measured.

BDI Beck Depression Inventory
HAM-D Hamilton Rating Scale for Depression
CES-D Centers for Epidemiology Studies Depression
ESI Everyday Stressors Index

One trial that compared CBT with no intervention for low-income mothers ‘at risk’ of depression (Peden et al, 2005) found statistically significant differences in both the depression measures used, at final follow-up, in favour of the intervention. Similarly, Beeber et al (2004), which compared Headstart with or without a depressive symptom intervention, reported significant differences in favour of the intervention in depression measures at final follow-up. In both these trials the same cut-off point on the same depression measure was used.

Finally, the Nickel et al (2005) trial, which had been testing the proposition that treating depressed mothers in a mother and child, in-patient ward would have no deleterious effects on mothers’ recovery, found that mothers in the intervention actually did worse, in terms of depression scores, at both four and six weeks into their treatment.

Anxiety

The sixth trial (Tritt et al, 2004) dealt with mothers with generalised anxiety disorders and explored whether or not joint admission of children with their mothers into an in-patient setting had any negative effect on the mothers’ treatment. As the data reported in the table suggest, there was no evidence of this after six weeks of in-patient care. This is in contrast to the similar trial exploring the effects of co-admission of children on mothers with depression.

Cognitive symptoms

Two trials looked at the impact of intervention on cognitive symptoms, and whether or not these improved with CBT (Sanders et al, 2000; Peden et al, 2005). Results from the two studies were different. The Sanders et al (2000) trial found no significant difference in change between the groups’ negative thoughts from baseline to follow-up while Peden et al (2005) reported a large group effect (and a large time effect – that is, both groups improved over time). The Peden et al (2005) trial had no placebo or alternative treatment control condition, so is comparing CBT with nothing, whereas the Sanders et al (2000) trial measured the effect of CBT **in addition to** a behavioural family intervention. However, the Sanders trial was also targeted at mothers whose children had behavioural problems.

Stress

The Peden et al (2005) trial also looked at the impact of CBT on parents’ reported stress. Again, the study group was reported to have improved significantly more than the control group, although both improved simply with time.

Self-reported response to the intervention

Four trials (Beardslee et al, 2003; Butler et al, 2000; Tritt et al, 2004; Nickel et al, 2005) reported some type of measure that assessed parents' own reactions to the intervention being tested (see Table 4.4). These predominantly assessed self-perceived change in parents' behaviour or attitudes towards or concerns about their children. Two of the trials were of forms of psycho-educational input and two of a mother and child ward in an in-patient setting. In no case was there any significant difference between those in the intervention group and those in control groups at final follow-up, whenever that was.

Butler et al (2000) also reported general assessments of the programmes' usefulness from 'family members'. This revealed that 88 per cent of 'family members' reported benefiting from the video-based psycho-educational intervention at least 'a little'. When asked about the separate elements of the programme, 84 per cent were at least 'somewhat satisfied' with the parent video, 89 per cent with the child video and 86 per cent with the programme manual.

Beeber et al (2004) reported qualitative material about how useful mothers found a nurse-led depressive symptom intervention. Their findings suggest that mothers found the intervention most useful to them when the nurse guided them towards practical solutions to their problems and helped them to make connections between their depressive symptoms and their problems.

Other outcomes for parents

Perceived social support

The Sanders et al (2000) trial of behavioural family intervention, plus or minus CBT, reported parents' levels of social support as an outcome, using the Social Support Inventory. This showed that both groups' social support levels changed significantly over time but that the degree of change was equivalent for both groups (main effect for time F[2,30] = 4.66, p=.017; group main effect F=2.17, ns).

Access to services

Overall family access to in-patient and out-patient health services was used as an outcome in the Butler et al (2000) trial of a video-based psycho-educational intervention. Comparison of the number of out-patient visits at six weeks showed a main effect for time (F[1,67] = 4.05, p=.048) but no group or interaction effects (F values not reported). Data on in-patient episodes were too sparse for analysis.

Table 4.4: Outcomes in trials reporting self-reported response to intervention

Study	Nature of service or intervention	Measure used	When measured	Results for intervention group Mean (SD) unless otherwise stated	Results for control group 1 (placebo or alternative intervention) Mean (SD) unless otherwise stated	Results for control group 2 (no intervention) Mean (SD) unless otherwise stated	Between groups comparison - statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/3 and EPOC/6
Butler et al, 2000	Video-based psycho-educational intervention (received by waiting list control group in week 7)	Number of concerns/ worries about children	Baseline	4.3 (1.4)	4.5 (1.3)	-			1/1
			Week 6	3.0 (1.3)	3.9 (1.4)	-	Between group contrasts, (residualised change scores) Baseline to wk 6, t=2.80, p=.007		
			Week 12	3.0 (1.3)	3.2 (1.3)	-	wk 6 to wk 12, t=0.16, ns Overall F=2.27 ns	Main effect for time F=32.57, p<.001	
		Rating of support and under-standing within family	Baseline	3.8 (1.4)	4.1 (1.2)	-			

Study	Nature of service or intervention	Measure used	When measured	Results for intervention group Mean (SD) unless otherwise stated	Results for control group 1 (placebo or alternative intervention) Mean (SD) unless otherwise stated	Results for control group 2 (no intervention) Mean (SD) unless otherwise stated	Between groups comparison - statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/3 and EPOC/6
			Week 6	4.4 (1.5)	4.6 (1.7)	-	Between group contrasts (residualised change scores) Baseline to week 6 t=0.33, ns		
			Week 12	4.3 (1.3)	4.8 (1.3)	-	Wk6 to wk12 t=1.34, ns Overall F=1.35, ns	Main effect for time F=8.76, $p<.001$	
		Proportion talked to children about PMHP	Baseline	64.7%	38.7%	-	sig different at baseline, $\chi^2=4.39$, p=.04		
			Week 6	67.6%	29.0%	-		Int group wk 6 to wk 12 z=2.93, p=.003 Waiting list control group wk 6 to wk 12 z=4.11, p,.001	
			Week 12	100%	100%	-			

Study	Nature of service or intervention	Measure used	When measured	Results for intervention group Mean (SD) unless otherwise stated	Results for control group 1 (placebo or alternative intervention) Mean (SD) unless otherwise stated	Results for control group 2 (no intervention) Mean (SD) unless otherwise stated	Between groups comparison - statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/3 and EPOC/6
Beardslee et al, 2003	Clinician-facilitated psycho-educational intervention	Number of parental behaviour and attitude changes in relation to children attributed to intervention	24m	9.8 (3.2)	6.3 (2.6)	-	Claimed but not reported directly		2/2
Tritt et al, 2004	In-patient, psychiatric psychotherapeutic treatment in mother and child ward	VEV – changes in experience and behaviour – change score of 0 defined as same as change score for untreated clinical random sample	6 weeks	195.0 (7.0)	194.7 (8.1)		Difference of end points =0.3, 95% CI [-5.4 to 6.1], p=.66		2/3

Study	Nature of service or intervention	Measure used	When measured	Results for intervention group Mean (SD) unless otherwise stated	Results for control group 1 (placebo or alternative intervention) Mean (SD) unless otherwise stated	Results for control group 2 (no intervention) Mean (SD) unless otherwise stated	Between groups comparison - statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/3 and EPOC/6
Nickel et al, 2005	In-patient, psychiatric psychotherapeutic treatment in mother and child ward	As above	6 weeks	195.0 (8.5)	194.0 (6.6)	-	Difference of end points (by us)=1.0, 95% CI [-3.7 to 5.8], p=.59		1/4

Outcomes for children

Psychological well-being or mental health

Two trials reported children's mental health outcomes, both of which related to level of depression and/or depressive episodes in children with parents with depression (Table 4.5). The first trial (Clarke et al, 2001), which intervened with children deemed 'at risk' of depression, reported significantly better outcomes for children who had received CBT, for the presence and severity of depression (CES-D score and HAM-D) but not for the depression sub-scale of the CBCL. This trial also reported the incidence and risk of 'new affective episodes' up to 24 months after the intervention ended. Statistically significant differences were found between study and control group adolescents at 12 and 18 months follow-up, but by 24 months the differences between the two groups had reduced and were no longer statistically significant. Of those who did develop a depressive condition, children in the study group were likely to do so significantly later (at an average of 14 months after the intervention) than those in the control group (6.3 months).

By contrast, in the other trial (Clarke et al, 2002) which was for children who had been defined as depressed at the start of the study, there were no significant differences between study and control groups on these three measures.

Given that there was no placebo or alternative treatment control in these trials, the possibility of a Hawthorne effect on the 'at risk' children, who started the trial with 'sub-syndromal' depressive symptoms, seems real. This is especially so given the gradual reduction in apparent effect over time. By contrast, the CBT intervention seemed to have no impact on those who were already experiencing clinical levels of depressive symptoms. In other words, doing something with the children of depressed parents who are themselves at risk for depression may improve their overall mental health and reduce the risk of depression in the future. However, with no placebo condition it is impossible to know whether this apparent effect is due to the intervention itself or simply to giving the children some form of attention. By contrast, when children are already over the clinical threshold for depression, CBT appears to have no effect over and above 'normal care', which, as explained earlier, could include other forms of mental health input.

Child behaviour

Several of the trials used the Child Behavior Checklist (CBCL) to assess outcomes for children. This checklist measures children's competencies and behaviour problems, based on the report of those who care for the children. It is based on nine 'constructs' or syndromes – social withdrawal, somatic complaints, anxiety/depression, social problems, thought problems, attention problems, sexual problems, delinquent behaviour and aggressive behaviour. The results are often reported as an Internalizing Problems score (based on a combination of the social withdrawal, somatic complaints and anxiety/depression scales) and an Externalising Problems score (a combination of the delinquent behaviour and aggressive behaviour scales). A Total Problem Score can also be reported, based on a selection of questions in the checklist. Further, as in the Clarke et al (2001, 2002) trials reported above, the depression element of the checklist is also used separately. The Youth Self Report (YSR) is an equivalent measure, based on the same constructs, but young people themselves complete the measure.

Five trials (Beardslee et al, 2003; Sanders et al, 2000; Verduyn et al, 2003; Clarke et al, 2001, 2002) reported outcomes for children using the CBCL or the YSR Internalising, Externalising or Total Problem Scores. None of these demonstrated any significantly different outcomes for study groups compared to control groups, regardless of whether or not a placebo or alternative intervention control condition was in place (Table 4.6).

Sanders et al (2000) and Verduyn et al (2003), both of which were targeted at mothers with depression whose children had behaviour problems, also reported other measures of child behaviour as outcomes. In the Sanders et al (2000) trial there was no evidence of significantly different change in parents' reports of their children's behaviour between baseline and final follow-up for the children in the study groups compared to the control groups. When each group was tested separately in the Verduyn et al (2003) trial, the study group showed significant improvement on the Eyberg Child Behaviour Inventory (ECBI) between baseline and 6 months and between baseline and 12 months; this significant change over time was not evident for the two control groups. However, as the study group started with higher scores on the ECBI, it may be that there was more scope for change in this group. Indeed, when the authors controlled for these differences in baseline scores, the overall analysis of effect across the three groups in the trial showed no statistically significant difference in the extent of change between the groups.

Other child outcomes

Table 4.7 shows the other outcomes for children reported in the trials.

Children's understanding of their parents' mental health

One of the main elements in the 'clinician-led' psycho-education programmes evaluated by Beardslee et al (2003) is the information given directly to children about their parents' mental health condition. At the end of the 24 month follow-up, children's understanding had improved and there was a difference between the two groups. However, other analysis had shown a strong relationship between improved children's understanding and the extent to which the parents' behaviour and attitude had changed. When this was controlled for in multi-variate analysis, differences between the two groups were no longer statistically significant. This suggests that either of the interventions tested is useful in changing children's level of understanding but this change is **via** parents' own changed behaviour and attitudes towards communication.

Table 4.5: Outcomes in trials reporting psychological well-being or mental health status of child

Study	Nature of service or intervention	Measure used	When measured	Results for intervention group Mean (SD)*	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison -statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/3 and EPOC/6
Clarke et al, 2001	Cognitive behavioural therapy	CES-D	Baseline	25.3 (8.7)	23.8 (10.3)	-			3/4
			Post-intervention	17.8 (8.7)	22.5 (11.3)	-			
			12m	15.1 (10.0)	21.5 (13.6)	-			
			24m	19.5 (9.8)	19.9 (10.4)	-	Treatment by time random effects regression analysis, p=.005, parameter estimate for linear effect = -.15, 95% CI [-.27 to -.04 Fixed effects treatment by time F=7.42, p=.005		
		HAM-D	Baseline	3.2 (3.4)	3.1 (3.2)	-			
			Post-intervention	1.8 (2.1)	2.9 (4.6)	-			
			12m	1.5 (2.7)	2.6 (4.9)	-			

Study	Nature of service or intervention	Measure used	When measured	Results for intervention group Mean (SD)*	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison -statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/3 and EPOC/6
			24m	2.2 (2.9)	2.6 (4.8)	-	Treatment by time random effects regression analysis, p=.05, parameter estimate for linear effect = -.04, 95% CI [-.08 to .00] Fixed effects treatment by time F=3.82, p=.05		
		CBCL-D	Baseline	8.8 (5.3)	6.8 (4.1)	-			
			Post-intervention	7.8 (5.5)	6.4 (3.5)	-			
			12m	7.2 (5.7)	5.4 (3.9)	-			
			24m	8.0 (6.5)	3.9 (2.9)	-	RER parameter estimate not reported. Fixed effects treatment by time F=.24, p=.62		

Study	Nature of service or intervention	Measure used	When measured	Results for intervention group Mean (SD)*	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison -statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/3 and EPOC/6
		Life-table analysis and Cox Regression analysis of cumulative estimated incidence of new affective episodes Hazard Ratio adjusted for sex, age, baseline CES-D score and depression history	12m after post-intervention assessment	Adjusted true year incidence 8.0%	Adjusted true year incidence 14.7%		Wilcoxon = 8.74, p=.003 Likelihood ratio, χ^2=9.30, p=.002, Hazards Ratio = 5.64, 95% CI [1.56 to 20.39]		
			18m after post-intervention assessment				Wilcoxon = 5.17, p=.002 Likelihood ratio, χ^2=4.78, p=.03, Hazards Ratio = 2.67, 95% CI [1.06 to 6.72]		

Study	Nature of service or intervention	Measure used	When measured	Results for intervention group Mean (SD)*	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison -statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/3 and EPOC/6
			24m after post-intervention assessment				Wilcoxon = 3.87, p=.05 Likelihood ration χ^2= 3.32, p=.07 Hazards Ratio = 2.16 95%CI [0.92 to 5.04]		
		Months to onset of mood disorder for those with such a disorder	n/a	14.0 (6.5)	6.3 (5.8)		t_{19} = 2.90, p=.009		
Clarke et al, 2002	As above	CES-D	Baseline	33.5 (8.3)	34.2 (9.8)	-			3/4
			Post-intervention	26.7 (12.6)	29.3 (12.8)	-			
			12m	22.4 (9.2)	23.8 (13.8)	-			
			24m	24.3 (11.6)	26.3 (12.9)	-	Treatment by time main effect F=.42, p=.52		
		HAM-D	Baseline	12.0 (5.3)	11.4 (5.0)	-			
			Post-intervention	5.5 (5.2)	6.0 (5.1)	-			
			12m	4.3 (4.2)	3.3 (5.0)	-			

Study	Nature of service or intervention	Measure used	When measured	Results for intervention group Mean (SD)*	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison -statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/3 and EPOC/6
			24m	4.1 (4.1)	4.4 (5.1)	-	Treatment by time main effect F=.26, p=.61		
		CBCL-D	Baseline	9.6 (5.3)	9.3 (5.7)				
			Post-intervention	10.2 (5.8)	8.9 (5.1)				
			12m	8.2 (6.4)	8.4(5.4)				
			24m	8.4 (7.4)	8.0 (5.5)		Treatment by time main effect F=.02, p=.88		
		K-SADS suicide symptom total	Baseline	1.1 (1.3)	1.0 (1.3)				
			Post-intervention	0.6 (1.2)	0.4 (1.1)				
			12m	0.1 (0.6)	0.2 (0.6)				
			24m	0.3 (0.9)	0.3 (1.0)		Treatment by time main effect F=.10, p=.75		
		Cumulative recovery from index depressive episode, with 8 weeks or more of ‘well time’,	Post-treatment	31.6%	29.8%		Wilcoxon not reported but said to be ns Cox regression analyses not reported but said to be ns		

Study	Nature of service or intervention	Measure used	When measured	Results for intervention group Mean (SD)*	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison -statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/3 and EPOC/6
		using survival analysis							
			12m after post-intervention assessment	71.1%	82.1%		Wilcoxon not reported but said to be ns Cox regression analyses not reported but said to be ns		
			24m after post-intervention assessment	89.5%	92.3%		Wilcoxon not reported but said to be ns Cox regression analyses not reported but said to be ns		

* In all measures reported above, a reduction in score indicates an improvement in the condition or symptom being measured.

CES-D Center for Epidemiologic Studies – Depression Scale
CBCL-D Child Behaviour Checklist - Depression
HAM-D Hamilton Rating Scale for Depression
K-SADS ‘Kiddie’ Symptoms of Anxiety and Depression Scale

Table 4.6: Outcomes in trials reporting child behaviour

Study	Nature of service or intervention	Measure used	When measured	Results for intervention group Mean (SD)*	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison -statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/3 and EPOC/6
Sanders et al, 2000	Cognitive behavioural therapy plus behavioural family intervention	PDR	Baseline	10.39 (5.66)	9.24 (3.87)	-			1/0
			Post-intervention	4.39 (4.08)	4.52 (3.07)	-			
			6m	4.78 (5.06)	5.13 (3.16)	-	F=.43, ns	Main effect for time F[1,32] =44.23, p<.0001	
		Observed negative behaviour	Baseline	26.8 (21.09)	17.88 (14.53)	-			
			Post-intervention	18.42 (11.77)	13.04 (9.97)	-			
			6m	12.31 (13.38)	10.59 (11.36)	-	F=.71, ns	Main effect for time F[2,31] =6.28, p=.005	
		CBCL-TB	Baseline	66.82 (11.02)	66.65 (7.66)	-			
			Post-intervention	59.71 (13.17)	57.29 (9.38)	-			

Study	Nature of service or intervention	Measure used	When measured	Results for intervention group Mean (SD)*	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison -statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/3 and EPOC/6
			6m	55.35 (13.33)	58.00 (10.71)	-	F=1.11, ns	Main effect for time F[2,31] =23.79, p≤.0001	
Clarke et al, 2001	Cognitive behavioural therapy	CBCL-I	Baseline	17.8 (10.7)	-	14.8 (8.5)			3/4
			Post-treatment	14.7 (10.3)	-	12.9 (7.0)			
			12m	14.2 (11.4)	-	10.5 (7.3)			
			24m	14.9 (12.4)	-	8.7 (5.4)	Treatment by time effect F=0.01, p=.93		
		CBCL-E	Baseline	14.4 (11.1)	-	12.5 (8.0)			
			Post-treatment	12.7 (11.1)	-	12.7 (9.6)			
			12m	10.6 (9.6)	-	9.6 (6.5)			
			24m	12.2 (11.6)	-	7.6 (5.6)	Treatment by time effect F= 0.16, p=.69		
Clarke et al, 2002	Cognitive behavioural therapy	CBCL-I	Baseline	18.6 (11.1)	-	19.2 (10.6)			3/4
			Post-treatment	18.5 (11.8)	-	16.2 (9.0)			
			12m	15.6 (13.0)	-	15.2 (8.4)			

Study	Nature of service or intervention	Measure used	When measured	Results for intervention group Mean (SD)*	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison -statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/3 and EPOC/6
			24m	16.4 (15.5)	-	15.0 (9.4)	Treatment by time main effect F=.07, p=.80		
		CBCL-E	Baseline	16.6 (11.5)	-	14.8 (10.3)			
			Post-treatment	16.1 (12.4)	-	14.4 (8.5)			
			12m	12.0 (11.3)	-	12.7 (9.6)			
			24m	13.6 (15.6)	-	10.8 (10.9)	Treatment by time main effect F=2.12, p=.15		
Beardslee et al, 2003	Clinician-facilitated psycho-educational intervention	Youth Self Report, adaptive and maladaptive behaviour: reports for internalising behaviour only	Baseline, post-intervention, c 12m after intervention, c 24m after intervention	Reported in bar chart only	Reported in bar chart only	-	Repeated measures analysis with generalised estimating equations. Intervention: χ^2= 0.2, p=.69	Repeated measures analysis with generalised estimating equations. Time: χ^2=7.3, p=.007. Gender (females higher score than males) χ^2= 5.3, p=0.02	2/2

Study	Nature of service or intervention	Measure used	When measured	Results for intervention group Mean (SD)*	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison -statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/3 and EPOC/6
Verduyn et al, 2003	Cognitive behavioural therapy and psycho-education	EBCI	Baseline	12. (8..0)	9.2 (6.8)	9.6 (6.4)			2/3
			Post-intervention	10.8 (8.0)	11.5 (7.6)	9.8 (6.8)			
			6m	9.1 (7.5)	9.9 (7.8)	8.4 (7.8)		Group 1, baseline to 6m, t=2.66, df 31, p<.01. Other groups said to be ns but t not reported	
			12m	7.9 (7.6)	10.3 (7.9)	4.4 (7.8)	F[2,54] with pre-treatment score as co-variate = 2.96, p=.06	Group 1 baseline to 12m, t=2.88, df 33, p=.007. Other groups said to be ns but t not reported	
		CBCL - TB	Baseline	62.8 (10.9)	56.5 (9.8)	55.9 (11.6)			

Study	Nature of service or intervention	Measure used	When measured	Results for intervention group Mean (SD)*	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison -statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/3 and EPOC/6
			Post-intervention	56.8 (9.7)	54.4 (10.0)	59.5 (9.1)		Group 1 Baseline to post-intervention t= 3.54, df=31, p,.001 Other groups said to be ns	
			6m	58.2 (10.1)	53.4 (10.3)	57.9 (12.5)		Group 1 Baseline to 6m t=2.95, df=27, p=.006 Other groups said to be ns	
			12m	56.5 (10.8)	55.4 (8.5)	51.9 (8.5)	F[2,48] with pre-treatment score as co-variate = 0.12, p=.89	Group 1 Baseline to 12m t=2.98, df=30, p=.006 Other groups said to be ns	

1. In all measures reported above, a reduction in score indicates an improvement in the condition or symptom being measured.

PDR	Parents' Daily Record
EBCI	Eyberg Child Behaviour Inventory
CBCL-TB	Child Behaviour Checklist Total Behaviour Problem Score
CBCL-I	Child Behaviour Checklist – Internalising
CBCL-E	Child Behaviour Checklist - Externalising

Table 4.7: Outcomes in trials reporting any other child outcomes

Study	Nature of service or intervention	Measure used	When measured	Results for intervention group Mean (SD)	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison - statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/ 3 and EPOC/ 6
Understanding of parents' condition									
Beardslee et al, 2003	Clinician-facilitated psycho-educational intervention	Mean change in understanding score generated from child's' self-rated understanding and interviewers' assessment	Around 12m and 24m after end of intervention	Reported only in bar chart	Reported only in bar chart		General estimating equation not including parental behaviour and attitude change, χ^2=8.2, p=.004		2/2
							General estimating equation including parental behaviour and attitude change, χ^2=0.2, p=.67		
Social adjustment or functioning									
Butler et al, 2000	Video-based psycho-educational intervention	Assessment of child's functioning at home and school	Baseline	18/40 report 'more than a few' problems	19/34 report 'more than a few' problems	–			1/1

Study	Nature of service or intervention	Measure used	When measured	Results for intervention group Mean (SD)	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison - statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/ 3 and EPOC/ 6
			6wk					Baseline to 6 weeks intervention t=2.73, df =17, p=.04, effect size .64 Control t not reported, ns, effect size .43	
			12wk				Main group effect and interaction ns	Baseline to 12 wk intervention t=3.07, df 17, p=.007, effect size .72 Control (after starting intervention) t=2.65, df 18, p=.016, effect size =.61 Main effect for time F[2,70] =9.36, p<.001	
Cognitive development									
Toth, 2006; Cichetti, 2000	Toddler Parent Psychotherapy	BMDI at baseline,	Mean age 20.47 (SD 2.49)	111.12 (16.68)	109.48 (18.73)	111.39 (18.78)	F[1,152] = 0.24, p=.78		3/1.5

Study	Nature of service or intervention	Measure used	When measured	Results for intervention group Mean (SD)	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison - statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/ 3 and EPOC/ 6
		WPPSI-R Full Scale IQ	When child 36m	107.09 (13.43)	100.78 (12.54)	107.41 (13.93)	ANCOVA controlling for baseline MDI scores Group main effect F[2,151]=4.95, p=.008		
		WPPSI-R Verbal IQ	When child 36m	104.21 (14.85)	97.50 (12.37)	103.70 (15.06)	ANCOVA controlling for baseline MDI scores Group main effect F[2,149]=3.84, p=.024 Gender and interaction effects ns		
		WPPSI-R Performance IQ	When child 36m	108.67 (14.49)	103.75 (15.56)	109.49 (13.84)	ANCOVA controlling for baseline MDI scores Group main effect F[2,149]=2.32, p=.10 Gender and interaction effects ns		

Study	Nature of service or intervention	Measure used	When measured	Results for intervention group Mean (SD)	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison - statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/ 3 and EPOC/ 6
		Difference score between standardized WPPSI-R Full Scale IQ and standardized BMDI	Between baseline and follow-up	.14 (.83)	-.21 (.92)	.15 (.86)	ANOVA Group main effect F[2,155] =3.05, p=.05		

BMDI	Bayley Mental Development Index
WPPSI-R	Wechsler Preschool and Primary Scale of Intelligence-Revised

Children’s social adjustment or functioning

One trial (Butler et al, 2000) reported children’s functioning at home and school. It is difficult to understand the analysis presented as the measure appears to be the numbers (and therefore proportions) of children reported as having ‘more than a few problems’ but the results are tested using t tests, which suggests some comparison of means. The paper does not clarify this issue but reports ‘statistically significant’ change between baseline and 12 weeks for both the initial intervention group and the waiting list control group who started to receive the intervention after six weeks. However, as Table 4.7 shows, there was no ‘main group effect’; in other words, no statistically significant difference at six weeks between the group that had received the psycho-educational intervention from the start of the trial and those who were in the waiting-list control group.

Cognitive development

One trial (Toth et al, 2006; Cichetti et al, 2000) reported the impact of a toddler parent psychotherapeutic intervention on children’s cognitive development. Overall, the children in the three groups in the study (a depressed intervention group (DI), a depressed non-intervention control group (DC), and a non-depressed comparison group (NDC)) showed statistically significant differences in overall, verbal and performance IQ scores at 36 months of age, after their level of cognitive development at baseline had been controlled for. In the case of the overall and verbal IQ scores, the DC children did worse than those in either the DI or NDC groups did. There was no statistically significant difference between the groups on their performance IQ scores. The authors argue, therefore, that the intervention allowed the children of depressed mothers to progress at a similar rate to that of their peers whose mothers were not depressed.

The authors tested the possibility that mothers’ depression might be acting as an intervening factor here by carrying out further multi-variate analysis. The results from this, the authors suggest, show that the DI children ‘maintained higher cognitive functioning whether or not their mothers had subsequent depressive episodes’ (Cichetti et al, 2000: 143). However, as the analysis controlled only for ‘presence or absence of subsequent depressive episodes’ rather than by any measure of length or level of depression, this possible effect remains to be confirmed in further research.

Parenting outcomes

Parenting behaviour

Three trials (Sanders et al, 2000; Baydar et al, 2003; Beeber et al, 2004) report parenting behaviour outcomes (Table 4.8).

Table 4.8 Outcomes in trials reporting parenting behaviour

Study	Nature of service or intervention	Measure used	When measured	Results for intervention group Mean (SD) *	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison -statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/3 and EPOC/6
Sanders et al, 2000	Cognitive behavioural therapy plus behavioural family intervention	PSCS – mothers	Baseline	47.44 (9.27)	45.88 (6.97)	-			1/0
			Post-intervention	61.06 (15.64)	62.06 (15.37)	-			
			6m	63.37 (11.91)	60.31 (13.85)	-	F=0.76, ns	Main effect for time F[2,29] =32.13, p≤.001	
		PSCS - fathers	Baseline	57.5 (7.85)	55.0 (4.92)				
			Post-intervention	60.0 (6.06)	65.11 (11.88)				
			6m	61.25 (9.29)	62.78 (10.41)		F=0.95, ns	No sig main effect for time, F not reported	
		Observed incidents of negative parent behaviour	Baseline	3.12 (3.62)	1.23 (1.98)				
			Post-intervention	0.99 (1.37)	0.58 (1.24)				

Study	Nature of service or intervention	Measure used	When measured	Results for intervention group Mean (SD) *	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison -statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/3 and EPOC/6
			6m	0.26 (0.50)	0.93 (3.0)		F=3.22, ns	No significant main effect for time, F not reported	
Baydar et al, 2003	Parenting training programme plus Headstart	Harsh, negative parenting – overall[1]		Not reported	Not reported	-		Intervention SEM estimated intercept = -.214, p<.05 Control groups ns	3/3
		Harsh, negative parenting – observer-specific[1]		Not reported	Not reported			Intervention SEM estimated intercept =-.334, p<.01 for intervention Control group ns	
		Supportive, positive parenting - overall[1]		Not reported	Not reported			Intervention SEM estimated intercept = .736, ns Control group ns	

Study	Nature of service or intervention	Measure used	When measured	Results for intervention group Mean (SD) *	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison -statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/3 and EPOC/6
		Supportive, positive parenting – observer specific[1]		Not reported	Not reported			Intervention SEM estimated intercept = -.324, p<.01 Control group ns	
		Inconsistent, ineffective parenting – overall[1]		Not reported	Not reported			Intervention SEM estimated intercept = -.214, p<.05 Control group ns	
		Inconsistent, ineffective parenting – observer specific[1]		Not reported	Not reported			Intervention SEM estimated intercept = -3.393, p<.01 Control group ns	
Beeber et al, 2004	Depressive symptom intervention	Observation of change in maternal-child interactions: Touch	Baseline and 16 weeks	+3.69%	+1.93%	-	Not reported		3/3
		Holding and staying near children		+12.07%	+3.83%	-	Not reported		

Study	Nature of service or intervention	Measure used	When measured	Results for intervention group Mean (SD) *	Results for control group 1 (placebo or alternative intervention) Mean (SD)	Results for control group 2 (no intervention) Mean (SD)	Between groups comparison -statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/3 and EPOC/6
		Expression of positive affect towards child		+2.4%	-1.40%	-	Not reported		
		Smiling at child		+0.85%	-0.69%	-	Not reported		
		Teaching child		+0.14%	-2.20%	-	Not reported		
		Total interactions with child		+3.68%	-1.95%	-	Not reported		
		Passive, uninvolved observation		-2.71%	-1.88%	-	Not reported		
		Negative affect towards child		-1.63%	-0.71%	-	Not reported		

* Improvement in PCSC score indicates improved parenting competence.
1. Assessment only for mothers with high level of depressive affect

PSCS	Parenting Sense of Competence Scale
SEM	Structural Equation Modelling

No statistically significant differences between those receiving both CBT and a behavioural family intervention and those receiving only the behavioural intervention were reported in the Sanders et al (2000) trial.

The Beeber et al (2004) trial (which was described as a pilot study) reports percentage change in a range of behaviours which, overall, favour the intervention; for example, mothers in the study group showed more increases in touch, holding and staying near their children, expressing positive affect, smiling, and the total number of interactions with their child in the observation period. Conversely, they showed more decreases in passive, uninvolved observation of their child and the expression of negative affect. However, the observers who assessed these changes were aware of which group the mothers' were in. Further, none of the changes were tested for statistical significance.

In the Baydar et al (2003) trial, overall (parent plus observer) and observer-specific assessments suggested that a specialist parenting training programme, added to Headstart, reduced the level of harsh, negative parenting; observer specific assessment showed an increase in supportive, positive parenting behaviour, and both overall and observer-specific assessments suggested a reduction in inconsistent, ineffective parenting behaviour. However, the statistical approach used here compared change from baseline to follow-up **within** the groups, that is, it showed statistically significant change in the study group but no significant change in the control group. Direct comparison of outcomes for the two groups was not possible, because this paper reported sub-group analysis of a larger trial which had not randomised mothers on the basis of their depressive symptoms, but carried out post-hoc analysis using depression as an exploratory variable.

Mother and child relationship

The only RCT to explore the mother and child relationship was the Toth et al (2006); Cichetti et al (2000) study. The trial focussed on the relationship between depressed mothers and their toddlers, with a specific, theoretically driven, focus on attachment. Reported outcomes thus concentrated on behaviours in the child that were argued to show the strength of attachment between mother and child. Table 4.9 shows the results given in the relevant paper (Toth et al, 2006).

As is clear from the table, the researchers have not reported their results on an intention to treat[13] basis – that is, they have not included the results from those who dropped-out. On this basis, they argue that there are significant differences between study and control groups at follow-up, favouring the intervention, in the proportions of children displaying secure or disorganised attachment behaviour in the 'Reactions to a Strange Situation' test. However, as is also clear from the table, and as discussed by the authors, the groups were significantly different in their attachment behaviour when assessed at baseline. Reanalysis of the results presented in the paper[14] (and see Appendix 7) suggests that there are other possible explanations for the findings. The depressed control (DC) group offered less scope for improvement than did the intervention group and this has not been accounted for in the analysis.

Table 4.9: Outcomes in trials reporting mother-child relationship

Study	Nature of service or intervention	Measure used	When measured	Results for intervention group Mean (SD) unless otherwise stated	Results for control group 1 (placebo or alternative intervention) Mean (SD) unless otherwise stated	Results for control group 2 (no intervention) Mean (SD) unless otherwise stated	Between groups comparison -statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/3 and EPOC/6
Toth, 2006; Cichetti, 2000	Toddler Parent Psychotherapy	Reactions to a Strange Situation: numbers ‘avoidant’	Baseline	24/66	18/64	13/68	Not reported overall		3/1.5
			Post-intervention	8/46 [66]	19/54 [64]	16/63 [68]	Said to be ns		
		Reactions to a Strange Situation: numbers ‘secure’	Baseline	11/66	14/64	38/68	X^2=28.05, df=2, p<.001		
			Post-intervention	31/46 [66]	9/54 [64]	30/63 [68]	X^2=27.0, df=2, p<.001		
		Reactions to a Strange Situation: numbers ‘resistant’	Baseline	6/66	6/64	4/68	Said to be ns		
			Post-intervention	2/46 [66]	4/54 [64]	4/63 [68]	Said to be ns		

Study	Nature of service or intervention	Measure used	When measured	Results for intervention group Mean (SD) unless otherwise stated	Results for control group 1 (placebo or alternative intervention) Mean (SD) unless otherwise stated	Results for control group 2 (no intervention) Mean (SD) unless otherwise stated	Between groups comparison -statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality JADAD/3 and EPOC/6
		Reactions to a Strange Situation: numbers 'dis-organised'	Baseline	25/66	26/64	13/68	X^2= 8.37, df=2, p<.015		
			Post-intervention	5/46 [66]	22/54 [64]	13/63 [68]	X^2= 12.82, df=3, p<.002		

Our overall conclusion about the results presented in the Toth et al (2006) paper is that adequate analysis would require some form of multi-variate approach that controlled for the differences in attachment behaviours at baseline and would need to adopt an intention to treat approach.

Discussion

Limitations of the material reviewed

There are few firm conclusions that can be drawn from the synthesis of material from the 12 RCTs identified that address the question of the impact of interventions to support PMHPs, their children and family members, largely because of the limitations of the studies themselves.

First, as shown in Chapter 2, the trials reviewed here displayed a poor quality of reporting of methodological details and therefore their quality scores are low. Further, only two trials (Baydar et al, 2003; Beardslee et al, 2003) randomised more than 100 families or individuals, meaning that their power to detect statistically significant difference was probably limited. Meta-analysis of results is one way to compensate for the lack of statistical power when several small trials are available, but in this review it was usually the case that where the same or similar outcomes were reported the interventions were different, and **vice versa**.

Secondly, the lack of placebos or a comparative treatment of equivalent weight in most of the studies reviewed is a serious weakness, given that these were apparently intended to be effectiveness trials. Other weaknesses in the reported quality of trials, particularly around blinded assessment of outcomes, high levels of drop-out and the subsequent analysis of data for missing subjects, also limit the conclusions that can be drawn.

The implication of poorly designed RCTs is that the effect of the intervention being tested is not accurately measured. However, this inaccuracy can be in two directions – over-estimating *or* under-estimating but there is no way we can judge in which direction for any given study.

Thridly, there is very little ‘saturation’ of the results reported in the reviewed trials, as Table 4.2 shows. Some outcomes are reported only in one or two trials, and even the most often reported outcome (parental mental health) in only six. Even opportunities for secure conclusions based narrative **synthesis** (rather than description) are, then, limited.

Overall conclusions from the studies reviewed

If we confine ourselves to outcomes reported in more than one trial, and taking some account of quality and possible placebo or Hawthorne effects, what conclusions can we draw from the studies reviewed in this chapter?

1. Impact on parental depression or depressive symptoms

Two RCTs reviewed in this chapter suggest that CBT (Peden et al, 2005) and another cognitive-based intervention (Beeber et al, 2004) may reduce depressive symptoms in mothers screened as ‘at risk’ for depression, compared to nothing else. However, with no placebo conditions, it is difficult to know whether it was the intervention itself or simply the attention generated by receiving the intervention that caused the effect. Further, the reporting of the Peden trial was of low quality, and the Beeber trial, though with higher quality reporting, was a pilot study involving very small numbers.

By contrast, compared against a placebo and a ‘no intervention’ group in one trial (Verduyn et al, 2003) CBT appears to have had no significant effect on depression in mothers whose children had behavioural problems. Indeed, a mother and toddler club appeared as effective in addressing depression in this trial. Similarly, when delivered alongside an existing family-focussed intervention, CBT appears to add little to improved outcomes when depressed mothers have children with behaviour difficulties (Sanders et al, 2000). In both these trials mothers had been assessed as depressed against recognised clinical criteria.

With a completely different focus, one trial (Nickel et al, 2005) suggested that delivering psychiatric and psychotherapeutic care for depressed mothers while their children are with them in an in-patient setting may impede their progress towards recovery.

2. Impact on children’s mental health

The relatively high-quality trial of CBT for the children of depressed parents who are themselves at risk for depression (Clarke et al, 2001) suggests that it may improve their overall mental health and reduce the risk of depression in the future. However, with no placebo condition it is impossible to know whether this apparent effect is due to the intervention itself or simply to giving the children some form of attention. The related trial of CBT for children already over the clinical threshold for depression (Clarke et al, 2002), suggests that it has no effect over and above ‘normal care’, which could include other forms of mental health input.

3. Impact on children’s behaviour

None of the trials that used measures of child behaviour showed any statistically significant difference between children in the intervention and control groups, although in the case of the Beardslee et al (2003) trial the comparison was between different **forms** of delivery of a psycho-educational intervention. In the Sanders et al (2000) and Verduyn et al (2003) trials of CBT alongside another intervention, targeted at depressed mothers of children who had behaviour problems, there was no evidence of the behaviour of children in the intervention groups improving any more than that of children in the control group(s). Similarly, among the children of depressed parents who were themselves depressed or ‘at risk’ for depression, CBT appeared to have no additional effect on child behaviour, over and above the improvement over time observed in all groups.

4. Impact on parenting

There is some suggestion from a pilot RCT (Beeber et al, 2004) and secondary analysis of a larger trial (Baydar et al, 2003) that a ‘depressive symptom intervention’ and a parenting programme, respectively, can improve aspects of mothers’ parenting behaviour. However, this conclusion is necessarily tentative given the pilot nature of the first study, and the partial nature of the analysis carried out in the second.

Chapter 5 Outcomes of services or interventions for parents with mental health problems and their families: results from non-RCT studies

Introduction

This section of review two, question two reviews the findings of non-RCT studies that reported quantitative outcomes of interventions to support PMHPs, their children or families. Twenty-five studies (published in 27 papers) were included.

Description of the service or intervention

Table 5.1 summarises information about the services or interventions evaluated in the non-RCT studies, the control conditions that they were compared with (if any), for whom they were intended, and other details of their delivery or organisation. Further details of about the nature and intensity of the interventions are included in Appendix 8.

Intervention and control condition

The 25 studies covered a very wide range of interventions.

As Table 5.1 shows, 22 studies were evaluations of single interventions or services, often experimental or developmental in nature. Eight of these involved some form of individual or group psychotherapy, ranging from Adlerian family therapy, through a therapeutic nursery to a CBT group intervention. There were three psycho-education interventions, so described, one ‘problem solving’ intervention, a family coping skills intervention, a series of ‘group meetings’ with what seemed to be a psycho-educational function, and a care management plus problem solving intervention. Two interventions focussed predominantly on improving parenting skills and two were of some form of residential treatment (not hospital). Finally in this group, there were two family support services – one that provided psychotherapy, psycho-education, parenting skills interventions, care management and various other services and one that focussed on parent training and generic support – and an assertive outreach service that was individually tailored to the needs of PMHPs.

The other three studies examined the impact of more generic services in several different settings – psychiatric hospital wards, social work services, and homeless shelters.

Only one of the 25 studies (Hye Ha and Ja Oh, 2006) had a control group as such; however, although this is described as a ‘waiting list control group’, there is no evidence in the paper that the control group ever received the intervention. There is also no description of what, if any, care the control group was receiving. Further, it is not clear how families were assigned to the intervention and control groups other than a statement in the paper that randomisation was not possible.

Another study (Free et al, 1996) was based on sub-group analysis of a large, longitudinal survey of mothers, and compared depressed mothers who had ever received any form of psychotherapy with depressed mothers who had not and a group of mothers without MHPs. The survey was not designed with intervention and control groups but analysed the receipt of psychotherapy post-hoc.

Finally, three studies refer to the use of comparative data from national or general populations (Bogard et al, 1999; Croake and Kelly, 1985; Nielsen, 2005) but these data were not always used to make comparisons related to the effectiveness of the intervention being studied.

In the majority of cases, then, the studies reviewed in this section were not ‘evaluations’ in the sense that they compared an intervention or service with something else, whether usual care or some other type of intervention. Rather, most were pre-test-post-test studies, assessing whether or not the intervention had an effect and, if so, how large that effect was. In other words, they are efficacy studies or, using the terms recommended by the Medical Research Council (MRC, 2000) should be seen as phase II or exploratory trials. The problem with all such studies, of course, is ascribing causation when other factors, including Hawthorne or placebo effects and the simple passing of time, may also have been at play.

Further, as the results of the quality assessment suggests (Table 2.6) the studies were predominantly of poor quality overall, in terms of their reporting, external and internal validity and selection bias (where this was relevant).

Aims and focus of the service or intervention

Given the variety of types of service or intervention in the reviewed studies, it is not surprising that their aims and focus also varied and, in most cases, were multiple, as Table 5.1 shows. Two main categories of aims are evident – treatment (six studies, five of which were focused on treatment for parents only and one treatment for both PMHPs and their children) and improving parenting skills (five studies). Four studies refer to promoting mental health or preventing parental MHPs, one of which also aimed to prevent MHPs in children, three to enabling parents to be reunited or to stay with their children, and three refer to delivering services. In several cases, interventions had more than one of these aims. Beyond these categories, however, the stated aims of the services or interventions are very diverse.

Table 5.1: Description of service or intervention in other quantitative impact studies

Study	Nature of service or intervention	Control condition(s)	Who for	Mental health problem	How defined	Who delivers	Setting	Aim	Country
Alder, 2005	Assertive outreach programme	None	Parents with severe and enduring MHPs and 'dependent' children	Largest group schizophrenial so includes depression, post-natal depression, bipolar disorder, personality disorder	Severe and enduring MHPs – referral criteria for agency. Not clear how assessed	Project co-ordinator and group worker not otherwise described	Where client chooses – home, community setting, plus group trips	Enable independent living via developing skills and enhancing confidence and support networks	UK
Bassett et al, 2001, 2003	Parenting skills programme with activities for children and monitoring	None	Parents with major MHP and their children under 5 years	Major mental illness	Not stated	Occupational therapists Guest speakers	Rehabilitation house	Consolidate parent-child relationship Enable parents to develop effective parenting skills	Australia
Bogard et al, 1999	Shelters for homeless families	None but used comparative data from a national survey	Homeless mothers	MHP not a criterion for inclusion in study but analysis based on CES-D 'caseness'	CES-D completed	Varied from shelter to shelter	Shelters	To house homeless families	USA
Brownrigg et al, 2004; Place et al, 2002	Psycho-education intervention for children and parents	None	Children (7-14) of parents with MHP and the parents	Parental significant depression	Depression of sufficient severity to require support from mental health professional	Social work and nurse workers experienced working with children with MHPs	Home Community settings	Enable child to recognise strengths. Enable parents to acknowledge and develop parenting skills	UK

Study	Nature of service or intervention	Control condition(s)	Who for	Mental health problem	How defined	Who delivers	Setting	Aim	Country
Brunette et al, 2004	Integrated family treatment	None	Parents with severe psychiatric difficulties and their families	Parental severe psychotic or mood disorder	Axis 1 diagnosis	Family specialist clinician	Home Mental health centre	Service co-ordination Delivery of home-based services	USA
Cardemil et al, 2005	Family coping skills programme	None	Low-income, 'Latina' mothers	Maternal depression	BDI measured at baseline but recruitment was not on basis of any depression measure	Group leaders not otherwise described	Hospital University psychology department	Prevention of depression	USA
Cowell et al, 2000	Problem solving nursing intervention	None	Mexican American parents and children of elementary school age	Maternal risk of MHP	Hopkins Symptoms Checklist to assess level of 'risk'	School nurse and nursing students	Home School	Promote mental health of Mexican American families	USA
Croake and Kelly, 1985	Adlerian Family Therapy	None but comparative data used from study of parent study groups	Fathers with MHPs and their families with at least one 'school age' child at home	Paternal schizophrenia or depression	Not stated – referred from in-patient ward	Family therapist	Out-patient clinic	Help fathers adjust to family life after returning from hospital	USA
Free et al, 1996	Psycho-therapy	Identified post-hoc – depressed mothers who did not receive psycho-therapy, plus non-depressed mothers	Mothers of pre-school children	Depression - unipolar and bipolar	SADS-Lifetime Version Research Diagnostic Criteria	Not recorded	Not recorded	Not relevant – post-hoc analysis of large survey	USA

Study	Nature of service or intervention	Control condition(s)	Who for	Mental health problem	How defined	Who delivers	Setting	Aim	Country
Hanrahan et al, 2005	Care management and problem solving	None	Homeless mothers with MHPs and their children (mean age 6 years)	Includes schizophrenia, other psychotic disorders, major depression, bipolar disorder, dysthymia, adjustment disorder	Maternal axis 1 diagnosis and significant role impairment. MINI used sometimes?	Care managers Psychiatrist	Home Community settings 'On-site'	Meet practical and psychiatric needs of homeless mothers with MHPs Help mothers retain or regain custody Continue or reinstate psychiatric care	USA
Hawes and Cottrell, 1999	Psychiatric hospital admission	None	Mothers but exploring impact on children aged 0-16 years	Psychotic and non-psychotic conditions not otherwise described	Not stated – all in-patients	Not stated	Acute psychiatric hospital wards	Treatment of MHP	UK
Hye Ha and Ja Oh, 2006	Cognitive Behavioural Group Therapy	Waiting list control group	Depressed mothers of children with behavioural problems	Maternal depression	Higher than average BDI scores and score in highest quartile for PSI – all self-report	Professor of Child Welfare and psychology 'resident'	Not stated	Reduce depressive symptoms in mothers Enhance parenting skills	Korea
Kendall and Peterson, 1996	Mental health services, including psychotherapy	None	Teenage mothers with MHPs	Includes PTSD, MDD, dysthymia, PD, GAD/panic disorder, adjustment disorder, bipolar disorder, schizo-phreniform disorder	DSM criteria but not clear how assessed	Psychiatric nurses and nursing students Psychiatrist	Special school for teenage mothers and their children	Provide mental health services	USA

Study	Nature of service or intervention	Control condition(s)	Who for	Mental health problem	How defined	Who delivers	Setting	Aim	Country
Nielsen, 2005	Family therapy	None but uses comparative data from 'sample of normal families'	Families with family problems and at least one parent with simul-taneous MHP. All children living at home under 18 years	Includes affective disorders, anxiety disorders, reaction to stress and adjustment disorders, eating disorders, personality disorders	ICD diagnoses but not clear how reached	Psycho-therapists	Out-patient ward	To improve family climate with overall aim of improving children's wellbeing and development	Denmark
Not given 2000 Emerson-Davis Family Development Center	Family residential development centre	None	Mothers with MHPs and history of homelessness. Children 1 wk to 15 yrs	Mostly schizophrenia or mood disorder, plus 'other'	Not stated	Social worker, counsellor, clinical child psychologist family development specialist, substance abuse counsellor, case manager, child care workers	Residential	Help mothers regain custody of children	USA
Not given 2002 Arkansas CARES	Residential treatment of dual diagnosis conditions, with intensive aftercare	None	Low-income mothers with dual diagnosis and their children, under 13 years at one site, under 19 years at another	Maternal dual diagnosis, Co-morbid MHPs include depression, schizophrenia, bipolar disorder, PTSD	Not stated	Paediatricians, family physicians, psychiatrists, nurses, social workers, psychologists, early years special education specialists, alcohol and drug abuse treatment counsellors, nutritionists, physio- and	Residential Outpatient setting for aftercare	Decrease maternal substance abuse Promote health family outcomes	USA

Study	Nature of service or intervention	Control condition(s)	Who for	Mental health problem	How defined	Who delivers	Setting	Aim	Country
						occupational therapists, speech and language pathologists, toxicology professionals			
Not given 2003 FSS/PACE programme	Family support service – multi-component	None	Parents with MHPs and their children under 18	Various, includes MDD, bipolar disorder, schizophrenia, GAD, PTSD, dysthymia, OCD	Axis 1 diagnosis, or experienced intensive inpatient or residential psychiatric treatment.	Clinical social workers (case managers)	Home	Build links between MH and other services Build on parents' strengths to avoid loss of custody and unplanned hospitalisation Increase families' quality of life	USA
Orel et al, 2003	Psycho-educational intervention	None	Children (8-13 years) of PMHPs	Includes bipolar disease, MDD, schizophrenia	Receiving mental health services and diagnosed with a mental illness – no other detail given	Mental health professionals Volunteer mentors	Not stated	Enhance children's ability to understand and cope with parent's MHPs	USA
Papworth et al, 2001	Group meetings – psycho-educational in type	None	Mothers	Maternal risk of MHP	By risk factors – isolated/ unsupported and considered vulnerable to development of psychological difficulties. Not clear who made judgement about this	Not stated	Not stated	Prevent development of psychological difficulties in vulnerable lone mothers	UK

Study	Nature of service or intervention	Control condition(s)	Who for	Mental health problem	How defined	Who delivers	Setting	Aim	Country
Pasquariella, 1996	Therapeutic unit	None	Parents with severe and chronic MHPs, their families and children 0-5 years	Maternal severe and chronic mental illness	DSM-IV criteria, not clear how assessed	Psychotherapist, psychiatrist and clinicians with extensive experience in child and adult psychotherapy, clinical supervisor	Therapeutic nursery	Prevent and/or treat MHPs in children Enhance parental mental health and level of functioning	USA
Pitman and Matthey, 2004	Psycho-educational programme	None	Children 8-16 years who have a parent or sibling with MHPs	MDD with or without anxiety or bipolar disorder, or schizophrenia	Caseworker provided diagnosis	Social worker (first author) and co-facilitators not otherwise described	Not stated	Provide age-appropriate education about mental illness Teach life skills to improve coping and resilience Improve children’s self-expression and creativity, enhance self-esteem and reduce feelings of isolation	Canada Australia
Sheppard, 2004	Direct social work and indirect work through other agencies	None	Mothers in care managed families who have screened positively for depression	Maternal depression	BDI. Not clear what cut-off was used and mean value not reported. Text refers to 18 as point used to distinguish those clinically depressed from those not	Social workers	Not stated	Provide social (emotional and instrumental) support to depressed mothers	UK

Study	Nature of service or intervention	Control condition(s)	Who for	Mental health problem	How defined	Who delivers	Setting	Aim	Country
Swartz et al, 2006	Brief interpersonal psychotherapy	None	Depressed mothers of children 12-18 years receiving psychiatric treatment	Maternal depression	MDD assessed by DSM-IV SCI Clinician Version	Clinical psychologist and trained mental health clinicians	Not stated	Treatment of depression Reduction of practical, psychological and cultural impediments to seeking treatment	USA
Verdeli et al, 2004	Interpersonal psychotherapy	None	Depressed mothers of children (mean age 14.1) being treated for depression	Maternal, unipolar, non-psychotic depression	DSM-IV SCI HAM-D	Experienced clinician trained in interpersonal psychotherapy	Out-patient clinic	Treatment of depression	USA
Waldo et al, 1987	Mother and Children's parenting and early intervention project	None	Mothers with schizophrenia and at least one preschool child	Maternal schizophrenia	'Diagnostic criteria for schizophrenia' not otherwise specified and registered patient with mental health clinic or private psychiatrist	Psychologists Child development specialist Social worker Volunteers (mothers)	Community church	Teach mothering skills Monitor development of children Provide early intervention	USA

Abbreviations

BDI	Beck Depression Inventory
CES-D	Center for Epidemiologic Studies – Depression Scale
DSM IV	Diagnostic and Statistical Manual of Depressive Disorders (4th edition)
HAM-D	Hamilton Rating Scale for Depression
ICD	International Classification of Disease
MINI	Mini-International Neuro-Psychiatric Interview
PSI	Parenting Stress Index – short form
SADS	Symptoms of Anxiety and Depression Scale
SCI	Structured Clinical Interview
GAD	Generalised anxiety disorder
MDD	Major depressive disorder
OCD	Obsessive compulsive disorder
PD	Personality disorder
PMHPs	Parents with mental health problems
PTSD	Post-traumatic distress disorder

In contrast to the RCTs reviewed in Chapter 4, the types of MHPs included in these non-RCT studies are varied (Table 5.1). While there is still an emphasis on parental depression (eight of the 25 studies are concerned solely with depression), 11 studies are about a range of MHPs, one is about schizophrenia alone, and two are about parents considered ‘at risk’ for MHPs. In all, 10 studies refer specifically to schizophrenia or ‘schizophreniform disorder’ as among the MHPs covered by the service or intervention. Three studies were unspecific about the type of PMHP covered. Overall, only 10 of the 25 studies were about a single type of MHP, making it difficult to know how far results of the other studies could be generalised.

The ways in which MHPs were defined or measured also varied considerably and, in most studies, were hardly described at all in the papers reviewed.

Fourteen services or interventions were specifically for mothers, one for fathers (although all the outcomes reported related to the mothers and children), and three for children. The remainder were described as being for parents or families although, in reality, most were about mothers.

Three interventions were targeted specifically at the depressed mothers of children with behavioural problems (Hye Ha and Ja Oh, 2006) or who themselves were receiving psychiatric treatment (Swartz et al, 2006; Verdeli et al, 2004) and one at families with ‘family problems’ as well as at least one parent with a MHP (Nielsen, 2005).

Seventeen studies referred to the age range of the children involved in the intervention or service and these varied widely – some simply including all children between 0 and 16 or 18, others being much more restricted in their age range (see Table 5.1).

Service delivery and organisation

Because of the diverse nature of the services and interventions included in this part of the review, the range of professionals delivering them was also wide, and varied from large, multi-disciplinary teams to small, investigator-led and delivered projects. The most commonly mentioned professionals involved in delivery were social workers or care managers (eight studies) followed by psychotherapists or generic counsellors (six) and psychologists (five). Nurses were involved in four studies and psychiatrists in three. Three interventions involved group leaders or facilitators and two ‘volunteers’, in one case mothers (Waldo et al, 1987) and in the other unspecified ‘mentors’ (Orel et al, 2003). In three studies it was not clear who was delivering the intervention or service.

Seven of the 25 studies did not record where the intervention or service was delivered, although in two of these cases the research was based on survey data. Where this information was reported, some type of formal, mental health, ‘out-patient’ setting was the most often mentioned site (eight studies) followed by home (six). Four interventions or services used community settings such as a church or hall and schools were involved in a further three. In one of the latter, the entire intervention was delivered in a special school for teenage mothers. Three of the projects studied involved residential provision, in one case (in the UK) a shelter for homeless people and in two multi-disciplinary interventions delivered in a residential setting (both in the USA). Other settings were acute hospitals and a hospital/university psychology department. As these numbers suggest, several projects involved delivery at multiple sites.

Location

As with the RCTs reviewed in Chapter 4, studies carried out in the USA also dominate this section (16/25). Five others were UK studies, one Korean, one Danish, one was carried out in both Canada and Australia, and one in Australia.

Outcomes reported

Tables 5.2a, b and c summarise the range of outcomes reported in the non-RCT studies for individual parents, children and 'families', respectively.

Table 5.2a shows that for individual parents, the most commonly reported outcome was some aspect of their mental health, whether assessed formally or by such indicators as admission to hospital. The next most common outcome reported was adherence to the intervention or service being evaluated, which is perhaps not surprising given that many of the studies were described as pilot or feasibility studies. Other outcomes at the parental level were reported in relatively few studies and using different measures: parents' self-reported response to the intervention or service (five), substance abuse (three), socio-economic outcomes (four), social life or functioning (four) and a range of other outcomes including service use and criminal arrest (six).

Table 5.2b shows that the reporting of outcomes for children was limited: five studies reported aspects of the children's own psychological well-being, three reported child behaviour outcomes, and five other outcomes such as social functioning or education.

Table 5.2c shows the family level outcomes that were reported, including parenting behaviour or skills (five studies), family functioning (four), custody or care of the child (eight), involvement with children's (social) services (one), and the mother-child relationship (two).

In addition to these outcomes for parents, children and families reported in Tables 5.2a, b and c, five studies also reported some aspect of the costs of the service or intervention (Kendall and Peterson, 1996; Waldo et al, 1987; Papworth et al, 2001; Emerson-Davis FDC, 2000; Arkansas CARES, 2002).

Table 5.2a: Parental outcomes reported in non-RCT studies of services/interventions to support PMHPs and their families

Study	Indicators of parental mental health	Self-reported response to intervention/ service	Substance abuse/dual diagnosis	Adherence	Socio-economic parental outcomes	Social life/functioning	Other parent outcomes
Alder, 2005	✓	✓			Income/household finance Employment/occupation Education/ training	✓	
Bassett et al, 2001, 2003	✓						Service use Change in food skills
Bogard et al, 1999	✓						
Brownrigg et al, 2004; Place et al, 2002							
Brunette et al, 2004	✓	✓		✓	Income/household finance Housing		
Cardemil et al, 2005	✓			✓			
Cowell et al, 2000	✓	✓					
Croake and Kelly, 1985							
Free et al, 1996							
Hanrahan et al, 2005	✓		✓	✓	Housing		Criminal arrest
Hawes and Cottrell, 1999							
Hy Ha and Ja Oh, 2006	✓			✓			
Kendall and Peterson, 1996	✓			✓			Service use

Study	Indicators of parental mental health	Self-reported response to intervention/ service	Substance abuse/dual diagnosis	Adherence	Socio-economic parental outcomes	Social life/functioning	Other parent outcomes
Nielsen, 2005							
Not given 2000 Emerson-Davis Family Development Center	✓	✓	✓	✓			Service use
Not given 2002 Arkansas CARES			✓		Income/ household finance Employment/ occupation Housing		
Not given 2003 FSS/PACE programme							
Orel et al, 2003							
Papworth et al, 2001	✓						
Pasquariella, 1996				✓		✓	
Pitman and Matthey, 2004				✓			
Sheppard, 2004							Service use Relevance of services received
Swartz et al, 2006	✓	✓				✓	Quality of life
Verdeli et al, 2004	✓			✓		✓	
Waldo et al, 1987	✓			✓			Service use

Table 5.2b: Outcomes for children reported in non-RCT studies of services/interventions to support PMHPs and their families

Study	Psychological well-being	Child behaviour	Other outcomes
Alder, 2005			
Bassett et al, 2001, 2003			
Bogard et al, 1999			
Brownrigg et al, 2004 Place et al, 2002	✓	✓	
Brunette et al, 2004			
Cardemil et al, 2005			
Cowell et al, 2000	✓		
Croake and Kelly, 1985		✓	
Free et al, 1996			Social functioning
Hanrahan et al, 2005			Education
Hawes and Cottrell, 1999			
Hye Ha and Ja Oh, 2006		✓	
Kendall and Peterson, 1996			
Nielsen, 2005			
Not given 2000 Emerson-Davis Family Development Center			
Not given 2002 Arkansas CARES			
Not given 2003 FSS/PACE programme	✓		
Orel et al, 2003	✓		Knowledge of MHPs Life skills
Papworth et al, 2001			
Pasquariella, 1996			
Pitman and Matthey, 2004			Knowledge of MHPs Life skills
Sheppard, 2004			
Swart et al, 2006			
Verdeli et al, 2004	✓		Social functioning
Waldo et al, 1987			

Table 5.2c: Parenting and family level outcomes reported in non-RCT studies of services/interventions to support PMHPs and their families

Study	Parenting	Family functioning	Custody/care of children	Involvement with children's (social) services	Mother-child relationship
Alder, 2005			✓		
Bassett et al, 2001, 2003				✓	
Bogard et al, 1999					
Brownrigg et al, 2004; Place et al, 2002		✓			
Brunette et al, 2004	✓		✓		
Cardemil et al, 2005					
Cowell et al, 2000		✓			
Croake and Kelly, 1985	✓				
Free et al, 1996					✓
Hanrahan et al, 2005			✓		
Hawes and Cottrell, 1999			✓		
Hye Ha and Ja Oh, 2006	✓				✓
Kendall and Peterson, 1996					
Nielsen, 2005		✓			
Not given 2000 Emerson-Davis Family Development Center	✓		✓		
Not given 2002 Arkansas CARES					
Not given 2003 FSS/PACE programme			✓		
Orel et al, 2003		✓			
Papworth et al, 2001					
Pasquariella, 1996			✓		
Pitman and Matthey, 2004					
Sheppard, 2004	✓				
Swart et al, 2006					
Verdeli et al, 2004					
Waldo et al, 1987			✓		

Outcomes for parents

Parental mental health and well-being

Table 5.3 summarises findings from the 14 non-RCT studies that reported parental mental health or well-being as an outcome. In this table, we have loosely grouped the projects according to the overall focus of the intervention – in this case, broadly psycho-educational, broadly psychotherapeutic, parenting skills or problem solving, and ‘other’. We acknowledge that this is an imperfect categorisation, given that some projects delivered more than one of these types of intervention and that in others the intervention was poorly described.

Two studies of interventions with a broadly psycho-educational approach (Cowell et al, 2000; Papworth et al, 2001) report data in such a way that MHPs can be compared before and after the intervention. These suggest positive change over time in parental MHPs, in the first case as measured by a generic screening tool for a range of MHPs and in the other as measured by both a depression and an anxiety screening tool.

Three studies of psychotherapeutic interventions reported change in parental depression as an outcome (Hye Ha and Ja Oh, 2006 – group CBT, Swartz et al, 2006; Verdeli et al, 2004 – both interpersonal psychotherapy). All three demonstrated statistically significant improvement in depression (and, where measured, anxiety) over time. This is perhaps as would be expected, given the current evidence base for the effectiveness of these two forms of psychotherapy on depressive symptoms in the short term (see, for example, Ward et al, 2000; Butler et al, 2006). However, it is important to remember that only the Hye Ha and Ja Oh (2006) study had any form of control group.

Further, two of the same studies, reported no significant change in at least one of the measures of MHPs employed. In the Verdeli et al (2004) study, while both depression measures showed significant change over time, the Global Impressions of Severity of Illness Scale did not. Of the studies without a control group included in this section this was the strongest as it adopted an intention to treat approach to analysis, using the last obtained score for study participants, regardless of whether or not they had completed the course of psychotherapy. In the Hye Ha and Ja Oh (2006) study, paired t-test comparison of the results of the Automatic Thoughts Questionnaire for the intervention group did not reached conventional levels of statistical significance, although the authors report the findings as such. A group x time effect is also claimed, tested by analysis of variance. This suggests the possibility that the intervention and the (unmatched) control group both improved over time, although at different rates. Unfortunately, scores for the two groups are not reported in the paper.

Table 5.3: Outcomes in non-RCT studies reporting parental mental health or well-being outcomes by type of intervention

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean (SD where given) * unless otherwise stated	Results for control group Mean (SD)	Between groups comparison – statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
Broadly psycho-educational intervention								
Cowell et al, 2000	Problem solving nursing intervention/None	HSC	Baseline	1.64 (no SD)	-	-		21
			Post-intervention	1.34 (no SD)	-	-	t = 3.33, p=.05, n=8	
Papworth et al, 2001	Group meetings/None	N scoring for caseness on HAD depression subscale	Baseline	6/11	-	-		29
			1m after intervention	0/11	-	-	Friedman ANOVA χ^2 (3) = 9.3, n=11, p<.025	
		N scoring for caseness on HAD anxiety subscale	Baseline	8/11				
			1m after intervention	3/11			Freidman ANOVA $\chi^2(3) = 17.0$, n=11, p<.001	
Hanrahan et al, 2005	Care management and problem solving/None	N of psychiatric hospital admissions	Baseline, but not clear over what period counted	3 (5)				26

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean (SD where given) * unless otherwise stated	Results for control group Mean (SD)	Between groups comparison – statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
		Days in psychiatric hospital	12m	1.2 (3.2)	-	-	Not tested as used different measures at baseline and follow up	
Broadly psychotherapeutic intervention								
Kendall and Peterson, 1996	Mental health services, including psychotherapy/None	N entering hospital or residential setting for severe MHP	Over 12m	3/38				9
Verdeli et al, 2004	Interpersonal psychotherapy/None	HAM-D	Baseline (n=10)	17.4 (8.0)				53
			Week 12 (n=9)	9.1 (8.0)			Random regression test of linear trend (baseline to week 12) E> -0.66, p=.04	
		BDI	Baseline (n=10)	20.0 (9.1)				
			Week 12 (n=8)	9.0 (10.1)			Random regression test of linear trend (baseline to week 12) E> -.83, p=.03	
		GISI	Baseline (n=10)	3.6 (0.8)				

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean (SD where given) * unless otherwise stated	Results for control group Mean (SD)	Between groups comparison – statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
			Week 12 (n=9)	2.7 (1.2)			Random regression test of linear trend (baseline to week 12) E< -0.07, p=.11	
Hye Ha and Ja Oh, 2006	Cognitive Behavioural Group Therapy/Waiting list control	BDI	Baseline	16.35 (3.43)	17.88 (6.19)			19
			Post-intervention	7.88 (4.15)	17.12 (9.14)	F[1,32] = 11.01, p<.01 (time x group effect)	Intervention group Paired t[16] = 8.14, p<.001 Control group paired t said to be ns	
		ATQ	Baseline	Not reported	Not reported			
			Post-intervention	Not reported	Not reported	F[1,32] = 5.12, p<.05 (time x group effect)	Intervention group paired t[16] = 2.03, p=.059 Control group paired t said to be ns	

Study	**Intervention/control condition**	**Measure used**	**When measured**	**Results for intervention group Mean (SD where given) * unless otherwise stated**	**Results for control group Mean (SD)**	**Between groups comparison – statistical test results and reported significance**	**Within group comparison – statistical test results and reported significance**	**Quality**
Swartz et al, 2006	Brief interpersonal psychotherapy/None	HAM-D	Baseline	20.9 (3.7)	-	-		29
			14 wks	8.1 (9.0)	-	-	Mean improvement 11.3 (10.4) Effect size Cohen's d=1.09, S= -.30.0, p<.005	
			6m	8.2 (7.0)	-	-	Change from 14 wks ns	
		GAS	Baseline	55.1 (4.2)				
			14 wks	Not reported			Mean improvement 17.2 (15.0) effect size Cohen's d=1.15, S=30.5, p<.005	
			6m	74.1 (9.9)			Change from week 14 ns	
Parenting skills/problem solving intervention								
Waldo et al, 1987	Mother and Children's parenting and early intervention project/None	% who increased compliance with treatment	Not clear	83%	-	-	-	18

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean (SD where given) * unless otherwise stated	Results for control group Mean (SD)	Between groups comparison – statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
Not given 2000 Emerson-Davis Family Development Center	Family residential development centre/None	Annual psychiatric hospital admission rate	Calculated over 3 years	12.5%	-	-	-	2
Bassett et al, 2001, 2003	Parenting skills programme with activities for children and monitoring/None	N admitted to hospital	Over 2 years	5/34 [2]*mean annual admissions per woman 0.07*			Claimed as a reduction but no pre-intervention figures reported	11
Brunette et al, 2004	Integrated family treatment - parent training and family support/None	BSI	Baseline	133.3 (34.3)	-	-		41
			12m	128 (34.9)	-	-	Not reported	
		PSI	Baseline	91.9 (20.6)	-	-		
			12m	98.9 (18.5)	-	-	Not reported	
Alder, 2005	Assertive outreach programme/None	N of hospital admissions	In 2 years before intervention	10 [2]*mean annual admissions per woman 0.38*	-	-	-	32
			‘after engaging with’ intervention – assume over 6m study period	1 [2] *mean annual admissions per woman 0.15*	-	-	-	
Cardemil et al, 2005	Family coping skills programme/None	BDI	Baseline (all, n =33)	14.41 (10.82)				15

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean (SD where given) * unless otherwise stated	Results for control group Mean (SD)	Between groups comparison – statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
			Baseline (completers, n=24)	11.21 (7.66)				
			Post intervention (n=24)	7.21 (7.06)			t(24) = 2.13, p<.05 Mean improvement 4.0 (9.2) effect size Cohen's d = .54	
			[1]Post intervention (n=33)	*9.17 (8.09)*			*Mean improvement 5.24 (9.46) effect size Cohen's d =.55*	
Other intervention								
Bogard et al, 1999	Shelters for homeless families/None but used comparative data	CES-D	Wave 1 -around admission	15.2 (adjusted for time since admission)	13.8 for similarly destitute but housed women	Said to be significant but only 1/7th of a SD		55
			Wave 2 - at least 6m after admission	15.8 (no SD)	-	-	Test of difference Mean (D)=0.8, SE=.711, T[202] =1.125, p=.15	

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean (SD where given) * unless otherwise stated	Results for control group Mean (SD)	Between groups comparison – statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
	N of services at shelter	CES-D, tested in regression model controlling for Wave 1 CES-D score, age, l.o.s. at shelter, moved out at Wave 2	Wave 2	Not reported	-	-	B Coefficient = .28, SE = .75, ns	
	N of caseworker meetings in last month	As above	Wave 2	Not reported	-	-	B Coefficient = -.12, SE=.07, p<.05	

* In all measures reported above, reduction in score indicates improvement in condition or symptoms measured
* recalculated by us on assumption of no change for drop-outs
** calculated by us

Abbreviations

l.o.s.	Length of stay
ATQ	Automatic Thoughts Questionnaire
BDI	Beck Depression Inventory
BSI	Brief Symptom Inventory
GAS	Global Assessment [of functioning] Scale
GISI	Clinical Global Impressions Severity of Illness Scale
HAD	Hospital Anxiety and Depression Scale
HAM-D	Hamilton Rating Scale for Depression
HSC	Hopkins Symptom Checklist
PSI	Parent Stress Index

Only two of the six studies of interventions with a parenting skills and/or problem solving focus report MHP measures, and results' reporting is generally poor in these. Cardemil et al (2005) report a statistically significant reduction in Beck Depression Inventory scores of four points (from a mean of 11.21, mild to moderate depression) to a mean of 7.21, normal 'ups and downs'). However, this result is based only on the 24/33 parents who actually completed the programme. If the data are reanalysed on an intention to treat basis and assuming no change for those who did not complete, the reduction in symptoms is **larger** (5.24) but moves from a mean of 14.41 (mild to moderate depression) to a mean of 9.17 (mild to moderate depression). This suggests both that the more depressed parents were more likely not to complete the programme, and that the overall effect of the programme was to reduce symptoms but not to bring parents below a mild to moderate depression threshold. In the Brunette et al (2004) study, a reduction in symptoms, as measured by the Brief Symptom Inventory, is evident but no statistical test is reported. Conversely, there was an apparent **increase** in parental stress but, again, no statistical test is reported.

Claims in other studies in this sub-group for change in the numbers or rate of psychiatric hospital admissions (Alder, 2005; Emerson-Davis FDC, 2000; Bassett et al, 2001, 2003) are difficult to evaluate with no control conditions or formal before and after testing.

Finally, the results of a post-hoc analysis of data on homeless mothers using shelters (Bogard et al, 1999) suggest that the number of meetings that mothers have with caseworkers is associated with lower levels of depression, once a number of relevant intervening variables have been taken into account. However, it is impossible to say anything about causation from this analysis.

Self-reported response to the intervention

Four non-RCT studies (Brunette et al, 2004; Cowell et al, 2000; Swartz et al, 2006; Alder, 2005) reported data on parents' own response to the intervention (Table 5.4). The first three of these reported users' satisfaction with the intervention and all three showed relatively high levels of satisfaction among those completing the programmes. The fourth reported parents' own, informal assessment of their mental health status on joining the programme and 'after engagement' with it. The findings are reported in such a way that it is difficult to judge exactly how much change had taken place over time and whether or not the two people reporting that they were 'not coping' after engagement had also reported 'not coping' at the beginning.

Table 5.4: Self-reported response to intervention in non-RCT studies

Study	Intervention/ control condition	Measure used	When measured	Results for intervention group Mean (SD where given) unless otherwise stated	Within group comparison – statistical test results and reported significance	Quality
Cowell et al, 2000	Problem solving nursing intervention/ None	% satisfied using perceived satisfaction rating scale developed for study	Post-intervention	95.8% support received 94% 'Stop, Think and Act' steps 85.9% amount of control had over intervention	n/a	21
Not given 2000 Emerson-Davis Family Development Center	Family residential development centre/None	% satisfied with service received	Not clear	60% 'very satisfied' 33% 'satisfied'	n/a	2
Brunette et al, 2004	Integrated family treatment/None	Satisfaction rating scale A-F	12m	Average score of A	n/a	41
Alder, 2005	Assertive outreach programme/None	Self-reported mental health status	On joining intervention	9/13 'poor' 4/13 'not coping'		32
			'After engagement' with intervention	1/13 'not coping' 7/13 'coping' 5/13 'stable'	Not reported	
Swartz et al, 2006	Brief interpersonal psychotherapy/ None	CSQ	After 8th session	29.6 (3.7) (n=11/13)	n/a	29

CSQ Client Satisfaction Questionnaire

Substance use

Three studies (Hanrahan et al, 2005; Emerson-Davis FDC, 2000; Arkansas CARES, 2002) reported outcomes in relation to substance use, one of which was specifically about parents with dual diagnoses. Although results suggesting improvement are reported (Table 5.5) these are difficult to ascribe to the intervention given the lack of control groups, before and after measurement, or statistical tests. Two studies suggest better outcomes for parents who completed the interventions than for those who did not, but without knowing whether these parents were otherwise equivalent it is difficult to know what to make of these findings. As our reanalysis of the Hanrahan et al (2005) study results shows (see Table 5.5), inclusion of drop-outs makes claims for the effectiveness of the intervention more difficult to maintain.

Adherence to the intervention or service

As the previous paragraph suggests, drop-out from or poor adherence to the interventions being studied was a significant problem in some projects. Eight of the 25 studies formally reported drop-out and adherence (Table 5.6) but did so at different points – both at the end of and during the intervention. For example, Hanrahan et al (2005) report drop out six and 12 months after entry to the programme, Pasquariella (1996) reports drop out ‘during treatment’, Hye Ha and Ja Oh (2006), before and in the early stages of treatment, and Pitman and Matthey (2004) at the end of a three-day programme.

Overall, drop-out or incomplete adherence seems high – ranging from 12.5 per cent after 11 months in one study (Brunette et al, 2004) to 55.2 per cent who terminated treatment ‘prematurely’ in another (Kendall and Peterson, 1996). Most of the authors point to the wider literature that describes the difficulties of engaging PMHPs, particularly those with dual diagnoses, in intervention programmes. However, as we saw in Chapter 4, some RCTs managed to retain substantial proportions of PMHPs in the studies. The wider range of MHPs included in the studies in this section could, perhaps, have had a role to play in higher rates of drop-out, but poor quality design may also have had a role to play.

Other outcomes for parents

Twelve studies reported a number of other outcomes for parents, the most common of which related to aspects of daily living such as housing, employment or income, but also social life, quality of life and aspects of access to, use of or reaction to service provision (Tables 5.7 and 5.7a).

Table 5.5: Outcomes related to substance use/dual diagnosis in non-RCT studies

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean (SD where given) unless otherwise stated	Results for control group Mean (SD where given) unless otherwise stated	Between groups comparison – statistical test results and reported significance	Within groups comparison – statistical test results and reported significance	Quality
Not given 2000 Emerson-Davis Family Development Center	Family residential development centre/None	Annual relapse rate	Over three years	3.6%	-	-	-	2
Not given 2002 Arkansas CARES	Residential treatment of dual diagnosis conditions, with intensive aftercare/None	Reversion to drug use	12m after discharge	15% for completers 58% for scheme drop outs	-	-	-	2
Hanrahan et al, 2005	Care management and problem solving/None	% with substance abuse problems	Baseline	'Half' (n=24)	-	-	-	26
			12m	32% (n=19) [1]*42% (n=24)*	-	-	-	

1. Recalculated by us on assumption of worst outcome for drop-outs

Table 5.6: Adherence to intervention or service in non-RCT studies

Study	Intervention/control condition	Number who dropped out/did not complete intervention	Drop out rate	Over what period	Quality
Waldo et al, 1987	Mother and Children's parenting and early intervention project/None	6/31 did not attend regularly	19.4%	6m	18
Kendall and Peterson, 1996	Mental health services, including psychotherapy/None	21/38 terminated prematurely	55.2%	Not clear	9
Pasquariella, 1996	Therapeutic unit/None	14/34 families	41.2%	During course of treatment	20
Not given 2000 Emerson-Davis Family Development Center	Family residential development centre/None	Not reported	0-13% 'adherence to service plan'	Not clear	2
Brunette et al, 2004	Integrated family treatment/None	1/8	12.5%	At 11m	41
Pitman and Matthey, 2004	Psycho-educational programme/None	8/25 did not attend all three days	32%	Three days	33
		All attended at least two days	0%	Three days	
Verdeli et al, 2004	Interpersonal psychotherapy/None	3/12	25%	12wks	53
Cardemil et al, 2005	Family coping skills programme/None	5/33	15.1	6wks	15
Hanrahan et al, 2005	Care management and problem solving/None	2/24	4.2%	6m	26
		4/24 drop out 1 death	16.7%	12m	
Hye Ha and Ja Oh, 2006	Cognitive Behavioural Group Therapy/waiting list control	8/25	32%	Before start and during early stages	19

Table 5.7: Any other individual level outcomes for parents in non-RCT studies

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean (SD where given) unless otherwise stated	Within group comparison – statistical test results and reported significance	Quality
Income/household finances						
Not given 2002 Arkansas CARES	Residential treatment of dual diagnosis conditions, with intensive aftercare/ None	% completers with incomes 'below poverty line'	Assume before intervention	93%		2
			After completing intervention	69%		
Brunette et al, 2004	Integrated family treatment/ None	Income	Baseline	$1859 (1179)		41
			12m	$1360 (583)		
Alder, 2005	Assertive outreach programme/None	Changes in household finances	As above	6/13 successfully claimed DLA 5/13 accessing free childcare		32
Employment/occupation						
Not given 2002 Arkansas CARES	Residential treatment of dual diagnosis conditions, with intensive aftercare/ None	% of 'completers' in employment	Assume before intervention	7%		2
			After completing intervention	48%		
		% unemployed	12m after discharge from programme	29% of completers 70% of drop-outs		

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean (SD where given) unless otherwise stated	Within group comparison – statistical test results and reported significance	Quality
Alder, 2005	Assertive outreach programme/None	Number in new occupations or activities	As above	3/13 returned to paid work 2/13 engaged in voluntary work 3/13 joined committees *Not clear if these overlap*		32
Education/training						
Alder, 2005	Assertive outreach programme/None	Number in new education or training	As above	6/13 training or gained qualifications 5/13 engaged in 'new career paths' *Not clear if these overlap*		
Housing situation						
Not given 2002 Arkansas CARES	Residential treatment of dual diagnosis conditions, with intensive aftercare/None	% of completers homeless	Assume before intervention	40%		
			After completing intervention	31%		
Brunette et al, 2004		Housing satisfaction score	Baseline	3.8 (2.1)		
			12m	4.4 (2.4)		
Hanrahan et al, 2005	Care management and problem solving/None	N living in different settings	Intake	7/24 Independent 15/24 Shelter 2/24 Treatment institution 0 Supportive housing		

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean (SD where given) unless otherwise stated	Within group comparison – statistical test results and reported significance	Quality
			12m	11/19 Independent 0 Shelter 0 Treatment institution 8/19 Supportive housing nb 4 drop-outs	Wilcoxon signed ranks test, z not reported, p<.001. Difficult to understand how this test was applied to these data	
Social life/social functioning						
Pasquariella, 1996	Therapeutic unit/None	Social functioning GAF	At admission	Range 30-55 indicating severe impairment		
			Post-intervention	Range 55-70 indicating shift to more moderate or mile level of difficulty		
Verdeli et al, 2004	Interpersonal psychotherapy/None	SAS – SR *	Baseline (n=10)	2.5 (0.4)		
			Week 12 (n=8)	2.0 (0.7)	Random regression test of linear trend E >-0.05, p=.05	
		GAF *	Baseline (n=10)	56.0 (5.0)		
			Week 6 (n=9)	59.2 (9.5)		
			Week 12 (n=9)	69.0 (9.3)	Random regression test of linear trend E >-1.04, p=.009	
Alder, 2005	Assertive outreach programme/None	Number taking up new leisure opportunities	At time of evaluation – timing not clear	2/13	-	
		Self-report of social networks	Baseline	13/13 ‘poor or fragmented’		

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean (SD where given) unless otherwise stated	Within group comparison – statistical test results and reported significance	Quality
			At evaluation – timing not clear	12/13 'stable or strong'		
Swart et al, 2006	Brief interpersonal psychotherapy/None	IIP-25 – need for social approval	Baseline	Not reported		
			Week 14	Not reported	S= -26, p<.02	
		IIP-25 – lack of sociability	Baseline	Not reported		
			Week 14	Not reported	S= -26, p<.006	
		IIP-25 – sensitivity imbalance and aggression	Baseline	Not reported		
			Week 14	Not reported	S= -29, p<.007	
Quality of life						
Swart et al, 2006	Brief interpersonal psychotherapy/None	Q-LES-Q-SF – overall life satisfaction	Baseline	Not reported		
			Week 14	Not reported	S=27.5, p<.002	
		Q-LES-Q-SF – social relationships, living situation and physical health	Baseline	Not reported		
			Week 14	Not reported	S=18, p<.002	
Access to, use of, reaction to services						
Waldo et al, 1987	Mother and Children's parenting and early intervention project/None	Compliance with treatment outside the programme judged by social workers and therapists	Not clear	83% of mothers said to have significantly improved compliance		
Kendall and Peterson, 1996	Mental health services, including psychotherapy/ None	N achieving individual treatment goals	At end of treatment	17/38		

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean (SD where given) unless otherwise stated	Within group comparison – statistical test results and reported significance	Quality
Not given 2000 Emerson-Davis Family Development Center	Family residential development centre/None	% of parents showing positive response to services in view of professionals	Not clear	86%		
Bassett et al 2001, 2003	Parenting skills programme with activities for children and monitoring/None	Access to other services	Not clear	15/34 ‘linked’ to agencies providing respite and day care services for children		
Sheppard, 2004	Direct social work and indirect work through other agencies/None	See table Y.7a	See table Y.7a	See table Y7.a		
Other						
Bassett et al 2001, 2003	Parenting skills programme with activities for children and monitoring/None	Change in food skills	Before and after programme	Results table in paper appears to be incorrect and at complete variance to text		
Hanrahan et al, 2005		Arrest	Intake	One third said to have history of arrest		
			12m	One mother arrested		

* SAS-R – reduction in score indicates improved social adjustment. GAF – increase in score indicates improved functioning.

Abbreviations

DLA	Disability Living Allowance
GAF	Global Assessment of Functioning (social and psychological)
IIP-25	Inventory of Interpersonal Problems
Q-LES-Q-SF	Quality of Life Enjoyment and Satisfaction Questionnaire – Short Form
SAS – SR	Social Adjustment Scale –Self-Report

Two studies of, respectively an assertive outreach programme for parents with ‘severe and enduring’ MHPs (Alder, 2005) and residential treatment with intensive aftercare for parents with dual diagnosis (Arkansas CARES, 2002), reported apparent improvements in parents’ employment situation. However, those who dropped out from the latter programme had much poorer employment outcomes 12 months after ‘discharge’ from the programme than those who completed it. These same studies also reported positive changes in income or household finances, which were presumably related to improvements in employment. A third study, of integrated family treatment for parents with ‘severe psychiatric difficulties’ reported a negative change in household income (Brunette et al, 2004) but this was neither commented on nor explained in the paper.

Alder (2005) also reported a high proportion of participants entering education or training or starting on new career paths.

The three studies that reported housing outcomes (Brunette et al 2004, Hanrahan et al, 2005 (a care management and problem solving intervention for homeless mothers with MHPs), Arkansas CARES, 2002) all suggest improvement for participants, either in housing satisfaction or the proportion no longer homeless or living in shelters.

Aspects of social life – whether leisure activities, social networks or more formal measurement of social functioning – are reported in four studies (Alder, 2005; Swartz et al, 2006 (brief interpersonal psychotherapy for depressed mothers of children receiving psychiatric treatment); Pasquariella, 1996 (therapeutic unit for mother with ‘severe and chronic’ MHPs); Verdeli et al, 2004 (interpersonal psychotherapy)). Reporting of the results is generally poor, but all studies claim improvement over time, as does the single study that used a more global, formal quality of life measure (Swartz et al, 2006).

Five studies (Emerson-Davies FDC, 2000; Bassett et al, 2001, 2003; Kendall and Pearson, 1996; Waldo et al, 1987; Sheppard, 2004) reported varied aspects of engagement with and response to services. With the exception of Sheppard (2004) – reported separately in Table 5.7a – none went beyond descriptive accounts.

The Sheppard (2004) study involved post-hoc analysis of a survey of users of family and children’s services in the UK. This examined a number of expressed needs among mothers who were depressed and the relationship between these needs and the work social workers reported doing with the mothers. Similar analysis looking at services from other agencies is also presented. The analysis distinguished between those needing help with a range of issues ‘a little’ from those needing help ‘quite a bit’.

As Table 5.7a shows, in most cases mother expressing a higher level of need received more help than those expressing a lower level of need. However, the bivariate analysis employed throughout the paper makes it difficult to understand the extent to which individuals had needs met **in total**.

Table 5.7a: Results from Sheppard 2004 – other individual outcomes for parents

Study	Intervention/control condition	Measure used	When measured	Numbers receiving help			Within group comparison – statistical test results and reported significance	Quality
Sheppard, 2004	Direct social work and indirect work through other agencies/None	N needing advice 'a little' who felt they received it from different sources	Survey based, post-hoc	30/36 from social worker	7/36 from parenting skills development services	7/36 from budgeting help services	For all results, statistical tests are reported but are difficult to understand and interpret	20
		N needing advice 'quite a bit' who received it from different sources		35/40 from social worker	7/40 from parenting skills development services	9/40 from budgeting help services		
		N needing 'positive feedback' 'a little'		19/28 from emotional dynamic work from social worker	11/28 from therapeutic work from other agency	4/28 from parenting skills development services		
		N needing positive feedback 'quite a bit'		32/46 from emotional dynamic work from social worker	10/46 from therapeutic work from other agency	7/46 from parenting skills development services		
		N needing social participation 'a little'		6/16 said social worker encouraged social participation				

Study	Intervention/control condition	Measure used	When measured	Numbers receiving help			Within group comparison – statistical test results and reported significance	Quality
		N needing social participation 'quite a bit'		32/57 said social worker encouraged social participation				
		N needing practical help 'a little		13/37 from practical support services	5/37 from budgeting help services			
		N needing practical help 'quite a bit'		25/40 from practical support services	12/40 from budgeting help services			
		N needing material aid 'a little'		15/29 gained financial support via direct social work				
		N needing material aid 'quite a bit'		15/30 gained financial support via direct social work				
		N needing support with private feelings 'a little'		22/26 from emotional support from social worker	8/26 from therapeutic work from other agency	6/26 from therapy services		
		N needing support with feelings 'quite a bit'		47/53 from emotional support from social worker	14/53 from therapeutic work from other agency	10/53 from therapy services		

Outcomes for children

Psychological well-being or mental health

Six non-RCT studies reported some aspect of children's psychological well-being or mental health as outcomes (Table 5.8).

Two studies reported on children's depression, as was appropriate perhaps in a preventive intervention (Cowell et al, 2000) and an intervention targeted at the depressed mothers of children being treated for depression (Verdeli et al, 2004). While Cowell et al (2000) reported significant positive change in the Child Depression Inventory (a self-report measure) from pre-test to post-test, the Verdeli et al (2004) study, which employed more sophisticated analysis based on intention to treat, did not. Neither did the Verdeli et al (2004) study show change on the Clinical Global Impressions of Severity scale. However, this study did show significant change from baseline to 12 weeks on the Hamilton Depression Rating Scale (a clinician-rated measure).

One other study, of a multi-component, family support service (FSS/PACE, 2003) reported a mental health outcome, but it is difficult to interpret the finding that children in 27/29 families experienced 'fewer' or no admissions to a psychiatric hospital or residential placement.

The other outcomes reported in this section all relate to children's self-esteem or self-worth. Brownrigg et al (2004) and Place et al (2002) report that a psycho-education intervention for parents with MHPs and their children is associated with significant positive change from baseline to post-intervention on some sub-scales of the Self-Description Questionnaire: physical appearance, peer relations, academic and non-academic performance, and the total score. Orel et al (2003) also report positive change associated with a psycho-educational intervention for the children of MHPs, both in overall self-esteem and in sub-scales of the Self Esteem Index relating to familial acceptance, academic competence, peer popularity and personal security. No statistical tests are presented for these results, but they are standardised against a general population of children and presented as percentiles. Finally, Cowell et al (2000) report no significant change on overall measures of Child Health Self Concept and Global Self Worth, after mothers deemed 'at risk' of MHPs received a nurse-led problem solving intervention.

Table 5.8: Outcomes related to psychological well-being of children in non-RCT studies

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean (SD where given) * unless otherwise stated	Results for control group Mean (SD)	Between groups comparison - statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
Cowell et al, 2000	Problem solving nursing intervention/None	CDI	Pre-intervention	13.5				21
			Post-intervention	8.75			t=3.10, p=.05	
		CHSC	Pre-intervention	126.83				
			Post-intervention	128.50			t=0.23, ns	
		GSW	Pre-intervention	18.80				
			Post-intervention	20.00			t=0.97, ns	
Brownrigg et al, 2004 Place et al, 2002	Psycho-education intervention for children and parents/None	Self-description Questionnaire (SDQ) – physical abilities	Baseline	30.9 (9.3)				13
			Post-intervention	31.2 (6.3)			t=0.13, ns	
		SDQ – physical appearance	Baseline	26.2 (10.7)				
			Post-intervention	31.7 (6.1)			t=2.23, p<.05	
		SDQ – peer-relations	Baseline	24.2 (12.1)				
			Post-intervention	30.7 (7.5)			t=2.28, p<.05	

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean (SD where given) * unless otherwise stated	Results for control group Mean (SD)	Between groups comparison - statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
		SDQ – parent relations	Baseline	35.1 (6.2)				
			Post-intervention	33.5 (5.4)			t=0.97, ns	
		SDQ – general school	Baseline	28.8 (10.1)				
			Post-intervention	31.2 (6.2)			t=1.01, ns	
		SDQ – General self	Baseline	33.9 (9.9)				
			Post-intervention	29.1 (8.1)			t=1.88, ns	
		SDQ – reading	Baseline	28.4 (13.0)				
			Post-intervention	34.3 (5.1)			t=2.11, ns	
		SDQ – maths	Baseline	31.1 (10.8)				
			Post-intervention	29.8 (8.9)			t=0.46, ns	
		SDQ – academic	Baseline	25.8 (11.7)				
			Post-intervention	31.7 (5.5)			t=2.28, p<.05	
		SDQ – non-academic	Baseline	25.5 (11.3)				
			Post-intervention	30.6 (4.6)			t=2.09, p<.05	
		SDQ – total	Baseline	25.6 (11.2)				
			Post-intervention	31.1 (4.3)			t=2.29, p<.05	

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean (SD where given) * unless otherwise stated	Results for control group Mean (SD)	Between groups comparison - statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
Not given 2003 FSS/PACE programme	Family support service/None	Admission to psychiatric hospital or residential placement	1995-1999	Children in 27/29 families experienced 'fewer' or no admissions				17
			2001-2	No children hospitalised and number of residential placements 'did not increase'				
Orel et al, 2003	Psycho-educational intervention/None	SEI – overall self-esteem	Pre-intervention	Standardised score 98 (Percentile 42)				31
			Post-intervention	111 (77)				
		SEI – familial acceptance	Pre-intervention	9 (37)				
			Post-intervention	12 (75)				
		SEI – academic competence	Pre-intervention	14 (75)				
			Post-intervention	Missing from published table (91)				
		SEI – peer popularity	Pre-intervention	10 (50)				
			Post-intervention	11 (63)				
		SEI – personal security	Pre-intervention	7 (16)				

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean (SD where given) * unless otherwise stated	Results for control group Mean (SD)	Between groups comparison - statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
			Post-intervention	10 (50)				
Verdeli et al, 2004	Interpersonal psychotherapy/None	HAM-D	Baseline (n=10)	12.7 (4.6)				53
			Week 6 (n=8)	7.0 (3.5)				
			Week 12 (n=9)	7.5 (3.6)			Random regression analysis E> -0.44, p=.007 Used last score obtained	
		CDI	Baseline (n=10)	13.1 (5.6)				
			Week 6 (n=8)	12.2 (5.2)				
			Week 12 (n=7)	10.4 (7.5)			Random regression analysis E> -0.20, p=.30 Used last score obtained	
		CGI-SI	Baseline (n=10)	3.4 (3.4)				
			Week 6 (n=8)	2.9 (0.8)				

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean (SD where given) * unless otherwise stated	Results for control group Mean (SD)	Between groups comparison - statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
			Week 12 (n=9)	2.7 (1.0)			Random regression analysis E> -0.06, p=.06 Used last score obtained	

* SDQ – increased score indicates improved self-description, CDI, Ham-D and CGI-SI – reduced score indicates improvement in depression, CHSC – increased score indicates improved self-concept, GSW – decreased score indicates improved self-worth, SEI – increased score indicates improved self-esteem.

CDI	Child Depression Inventory
CGI-SI	Clinical Global Impressions Severity of Illness Scale
CHSC	Child Health Self Concept
GSW	Global Self Worth sub-scale of the Self-Perception Profile
HAM-D	Hamilton Depression Rating Scale
SDQ	Self-Description Questionnaire
SEI	Self-Esteem Index

Child behaviour

Three studies (Table 5.9) report child behaviour outcomes (Brownrigg et al, 2004; Place et al, 2002; Croake and Kelly, 1985; Hye Ha and Ja Oh, 2006) using, respectively, the Strengths and Difficulties Questionnaire (SDQ) and the Child Behaviour Check List Competency Scale (CBCL-C), the Children's Behaviour Checklist – Bothered and Observed (CBC-B and CBC-O, and the Korean version of the Child Behaviour Check List (K-CBCL). All report both total scores and some report sub-scale scores.

Brownrigg et al (2004) and Place et al (2002) report significant positive change for the children of depressed parents between pre-test and post-test on pro-social behaviour, hyperactivity, and total deviancy score on the SDQ and on participation in groups on the CBCL-C. This latter change is not surprising given that a large part of the psycho-educational intervention was group based for the children involved.

Croake and Kelly (1985) report results for the children of depressed and schizophrenic fathers separately, and show that both improved significantly over time on the overall CBC-O and CBC-B scores after Adlerian Family Therapy intended to help the fathers adjust to family life after returning from hospital.

Finally, Hye Ha and Ja Oh (2006) report statistically significant differences from pre-test to post-test between their intervention (group CBT for depressed mothers) and their 'waiting list control' group. These are reported for the K-CBCL total behaviour problems score, as well as the externalising problems sub-scale, but the internalising problems score is not referred to at all, and the social competence score is not reported but is said to be not significantly different statistically. This study also reported change from pre-intervention to follow up three months after the intervention. Here the total behaviour problems score was said still to be positively and significantly different for the intervention group but not for the control group. However, neither the externalising nor the internalising problems scores remained significantly different, while the social competence score for the intervention group had **become** different, when it was not at post-intervention testing. Partial reporting of results, no details about the control group, and a confusing text make it difficult to assess exactly what happened in this study.

Knowledge of mental health problems

Psycho-educational interventions that include the children of PMHPs usually involve an element that aims to improve their understanding or knowledge about MHPs. Three non-RCT studies were of this type but only two of them (Pitman and Matthey, 2004; Orel et al, 2003) actually reported change in children's knowledge of MHPs. As Table 5.10 shows, Pitman and Matthey (2004) report significant change[15] in children's knowledge about a number of aspects of MHPs. The only area where there was no significant change was in relation to understanding about what schizophrenia is. Orel et al (2003) report a much more limited outcome – the proportion of children 'able to name different types of illnesses' – and do not report any pre-intervention results. After the intervention 70 per cent of the 11 children who took part were reported to be able to name different types of illnesses.

Other outcomes

The remainder of outcomes reported for children can be classified broadly as life skills, social functioning and education (see Table 5.10).

Two psycho-educational interventions that included children reported some aspects of life skills. Orel et al (2003) report that all the 11 children who participated in the intervention were able to verbalise or demonstrate a 'crisis management plan' related to their parent's MHP, but no pre-intervention results are given. Pitman and Matthey (2004) report the results of a large number of life skill questions from a 'Life Skills Measure', all but one of which (ability to be creative) show statistically significant change from pre- to post-intervention[16].

Two studies report some aspects of social functioning as outcomes. Verdeli et al (2004) used the Social Adjustment Inventory for Children and the Children's Global Assessment Scale to measure change in children after their depressed mothers received interpersonal psychotherapy. Neither measure showed significant change from baseline to follow-up in random regression analysis. Free et al (1996) examined how accurate children were in their reporting of observed negative and positive affective language and compared those whose depressed mothers had received psychotherapy, those whose depressed mothers had not received psychotherapy, and those whose mothers were not depressed. This comparison was based on post-hoc, sub-group analysis of a large survey, rather than direct evaluation of an intervention. The analysis of variance reported suggests that there were differences between the three groups in relation to negative affective language, but that the main difference was between the children of depressed mothers who had not received psychotherapy and those whose mothers were not depressed. The results for positive affective language were not significantly different between the groups, although the combined results (presumably driven by the negative affective language scores) were. In this latter case, two-way analysis showed the children of depressed mothers who had received psychotherapy and the children of non-depressed mothers both had significantly better results than the children of depressed mothers who had not received psychotherapy.

Finally in this sub-section, one study (Hanrahan et al, 2005) reported how many children were enrolled in school after their mothers had participated in a case management and problem solving intervention. Six months after embarking on the programme all 26 children in their mother's care were in school, 47 per cent of whom were in special educational provision of some sort. This study was in the USA, making its relevance to the UK context difficult to judge.

Table 5.9: Child behaviour outcomes for children reported in non-RCT studies

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean * (SD where given) unless otherwise stated	Results for no intervention control Mean (SD where given) unless otherwise stated	Results for population control group Mean (SD where given) unless otherwise stated	Between groups comparison – statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
Croake and Kelly, 1985	Adlerian Family Therapy/None but used comparative data	CBC-O	Baseline	Children of schizophrenic fathers 17.93 *Children of depressed fathers 17.29*					24
			Week 4	18.79 *17.25*				Groupxtime interaction effect F[4,232] = 6.75, p<.001	
			Week 10	15.89 *15.41*					
			Week 14	14.20 *14.00*					
			Post-intervention (week 20)	14.10 *14.35*				Main effect for time F[4,232] = 209.8, p<.001	
		CBC-B	Baseline	Children of schizophrenic fathers 7.26 *Children of depressed fathers 7.60*					

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean * (SD where given) unless otherwise stated	Results for no intervention control Mean (SD where given) unless otherwise stated	Results for population control group Mean (SD where given) unless otherwise stated	Between groups comparison – statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
			Week 4	8.26 *9.11*					
			Week 10	7.35 *7.88*					
			Week 14	6.96 *7.43*					
			Post-intervention (week 20)	7.10 *7.45*				Main effect for time F[4,224] = 34.51, p<.001	
Brownrigg et al, 2004 Place et al, 2002	Psycho-education intervention for children and parents/None	SDQ – prosocial behaviour	Pre-intervention	5.7 (2.2)					13
			Post-intervention	7.7 (2.8)				t=2.81, p<.005	
		SDQ – hyperactivity	Pre-intervention	5.5 (3.0)					
			Post-intervention	3.4 (2.1)				t=2.87, p<.005	
		SDQ – emotionality	Pre-intervention	5.0 (2.8)					
			Post-intervention	3.8 (2.5)				t=1.6, ns	

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean * (SD where given) unless otherwise stated	Results for no intervention control Mean (SD where given) unless otherwise stated	Results for population control group Mean (SD where given) unless otherwise stated	Between groups comparison – statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
		SDQ – conduct	Pre-intervention	3.2 (1.8)					
			Post-intervention	2.2 (1.5)				t=2.13, ns	
		SDQ - peers	Pre-intervention	3.9 (2.5)					
			Post-intervention	2.9 (2.4)				t=1.44, ns	
		SDQ – Total deviance score	Pre-intervention	17.6 (7.2)					
			Post-intervention	12.7 (5.9)				t=2.63, p<.05	
		CBCL–C - activity level	Pre-intervention	4.6 (1.9)					
			Post-intervention	5.4 (2.6)				t=1.24, ns	
		CBCL-C participation in groups	Pre-intervention	0.3 (0.5)					
			Post-intervention	3.5 (2.4)				t=6.53, p<.005	
		CBCL-C Total social score	Pre-intervention	7.1 (2.33)					
			Post-intervention	8.2 (2.2)				t=1.73, ns	

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean * (SD where given) unless otherwise stated	Results for no intervention control Mean (SD where given) unless otherwise stated	Results for population control group Mean (SD where given) unless otherwise stated	Between groups comparison – statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
Hye Ha and Ja Oh, 2006	Cognitive Behavioural Group Therapy/waiting list control	K-CBCL – total behaviour problems	Pre-intervention Post-intervention	Not reported	Not reported	-	Repeated measures ANOVA Group x time interaction effect F[1,32] = 6.54, p<.05	Intervention group paired t test pre to post intervention t[16] = 3.12, p<.01 Control group t not reported but said to be ns	19
		K-CBCL – externalising problems	Pre-intervention Post-intervention	Not reported	Not reported	-	Repeated measures ANOVA Group x time interaction effect F[1,32] = 9.24, p<.01	Intervention group paired t test pre to post intervention t[16] = 3.33, p<.01 Control group t not reported but said to be ns	
		K-CBCL internalising problems	Pre-intervention Post-intervention	Not reported	Not reported	-		Not reported	

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean * (SD where given) unless otherwise stated	Results for no intervention control Mean (SD where given) unless otherwise stated	Results for population control group Mean (SD where given) unless otherwise stated	Between groups comparison – statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
		K-CBCL – social competence	Pre-intervention Post-intervention	Not reported	Not reported	-		Not reported, said to be ns	
		K-CBCL – total behaviour problems	Pre-intervention 3m follow-up	Not reported	Not reported	-		Intervention group paired t test t[14] = 2.74, p<.05 Control group not reported	
		K-CBCL – externalising problems	Pre-intervention 3m follow-up	Not reported	Not reported	-		Intervention group t not reported, said to be ns	
		K-CBCL internalising problems	Pre-intervention 3m follow-up	Not reported	Not reported	-		Intervention group t not reported, said to be ns	

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean * (SD where given) unless otherwise stated	Results for no intervention control Mean (SD where given) unless otherwise stated	Results for population control group Mean (SD where given) unless otherwise stated	Between groups comparison – statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
		K-CBCL – social competence	Pre-intervention 3m follow-up	Not reported	Not reported	-		Intervention group paired t test t[14] = -2.99, p<.05 Control group not reported	

* SDQ – implication of change in score depends on polarity of the item – lower scores on negative items indicate improvement, higher scores on positive items indicate improvement. CBCL – all versions, increased scores indicate improvement in measured behaviour.

rbp point biserial correlation

CBCL-C	Child Behaviour Check List Competency Scales
CBC-B	Children's Behaviour Checklist - Bothered
CBC-O	Children's Behaviour Checklist – Observed
K-CBCL	Korean version of the Child Behaviour Check List
SDQ	Strengths and Difficulties Questionnaire

Table 5.10: Other outcomes for children reported in non-RCT studies

Study	Intervention/ control condition	Measure used	When measured	Results for intervention group Mean * (SD where given) unless otherwise stated	Results for no intervention control Mean (SD where given) unless otherwise stated	Results for population control group Mean (SD where given) unless otherwise stated	Between groups comparison – statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
Knowledge of MHPs									
Orel et al, 2003	Psycho-educational intervention/ None	N of children able to name different types of illnesses	After intervention only	Says 70% (n=11) able to do so					31
Pitman and Matthey, 2004	Psycho-educational programme/ None	Child's score on quiz about knowledge of mental illness: What is mental illness?	Pre-intervention	3.7 (2.4)					33
			Post-intervention	7.8 (2.1)				t [18]= -7.92, p<.001 rbp=0.88	
		What causes mental illness?	Pre-intervention	2.5 (2.4)					
			Post-intervention	5.9 (2.8)				t[16] = -6.47, p<.001 rbp=0.85	
		What is schizophrenia?	Pre-intervention	2.3 (1.9)					
			Post-intervention	6.8 (4.2)				t[3]= -2.17 p<.10 rbp=.84	
		Signs of schizophrenia?	Pre-intervention	1.6 (1.5)					

Study	Intervention/ control condition	Measure used	When measured	Results for intervention group Mean * (SD where given) unless otherwise stated	Results for no intervention control Mean (SD where given) unless otherwise stated	Results for population control group Mean (SD where given) unless otherwise stated	Between groups comparison – statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
			Post-intervention	5.7 (3.1)				t[6]= -4.13 p<.01 rbp=.86	
		What is depression?	Pre-intervention	4.8 (3.3)					
			Post-intervention	7.1 (3.6)				t[11]= -2.2 p<.05 rbp=.55	
		Signs of depression	Pre-intervention	4.3 (3.6)					
			Post-intervention	7.5 (3.4)				t[16]= -3.73 p<.01 rbp=.68	
		What is bi-polar disorder?	Pre-intervention	1.8 (1.9)					
			Post-intervention	6.6 (3.7)				t[8]= -4.24 p<.01 rbp=.83	
		Signs of bi-polar disorder?	Pre-intervention	1.3 (2.5)					
			Post-intervention	5.5 (3.6)				t[9]= -4.16 p<.01 rbp=.81	
		What treatments help?	Pre-intervention	3.6 (3.0)					

Study	Intervention/ control condition	Measure used	When measured	Results for intervention group Mean * (SD where given) unless otherwise stated	Results for no intervention control Mean (SD where given) unless otherwise stated	Results for population control group Mean (SD where given) unless otherwise stated	Between groups comparison – statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
			Post-intervention	7.1 (3.1)				t[15]= -4.83 p<.001rbp=.78	
Life skills									
Orel et al, 2003	Psycho-educational intervention/None	N of children able to verbalize and/or demonstrate 'crisis management plan'	After intervention only	11/11					31
Pitman and Matthey, 2004	Psycho-educational programme/None	Rating on life skills measure: ability to talk with people	Pre-intervention	6.6 (2.9)					33
			Post-intervention	8.3 (2.1)				t[17]= -3.70 p<.01 rbp=.67	
		Ability to listen to other people	Pre-intervention	7.2 (2.7)					
			Post-intervention	8.9 (1.7)				t[17]= -3.05 p<.01 rbp=.59	
		Ability to express good feelings	Pre-intervention	7.7 (2.5)					

Study	Intervention/ control condition	Measure used	When measured	Results for intervention group Mean * (SD where given) unless otherwise stated	Results for no intervention control Mean (SD where given) unless otherwise stated	Results for population control group Mean (SD where given) unless otherwise stated	Between groups comparison – statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
			Post-intervention	9.4 (1.2)				t[17]= -3.90 p<.01 rbp=.69	
		Ability to express bad feelings	Pre-intervention	4.0 (3.0)					
			Post-intervention	6.1 (3.4)				t[17]= -2.85 p<.05 rbp=.57	
		Ability to recognise my strengths	Pre-intervention	6.7 (2.5)					
			Post-intervention	8.4 (1.6)				t[17]= -2.99 p<.05 rbp=.59	
		Ability to be creative	Pre-intervention	7.9 (2.7)					
			Post-intervention	9.2 (1.7)				t[17]= -2.03 p<.10 rbp=.44	
		Ability to solve problems	Pre-intervention	5.4 (2.7)					
			Post-intervention	7.4 (2.7)				t[17]= -3.77 p<.01 rbp=.67	

Study	**Intervention/ control condition**	**Measure used**	**When measured**	**Results for intervention group Mean * (SD where given) unless otherwise stated**	**Results for no intervention control Mean (SD where given) unless otherwise stated**	**Results for population control group Mean (SD where given) unless otherwise stated**	**Between groups comparison – statistical test results and reported significance**	**Within group comparison – statistical test results and reported significance**	**Quality**
		Ability to relax	Pre-intervention	6.2 (3.1)					
			Post-intervention	7.8 (2.4)				t[17]= -3.50 p<.01 rbp=.65	
		Ability to feel good about myself	Pre-intervention	6.8 (2.8)					
			Post-intervention	8.4 (2.3)				t[17]= -3.34 p<.01 rbp=.63	
		Ability to have fun	Pre-intervention	9.2 (1.5)					
			Post-intervention	9.9 (0.6)				t[17]= -2.40 p<.05 rbp=.50	
Social functioning									
Free et al, 1996	Psychotherapy/ usual care/ mother without MHP	Children's affective language communication accuracy: negative affect accuracy	Survey-based, post-hoc analysis	1.2326	0.1000[b]	0.6129[a]	F=3.2873, p=.04 a,b denotes groups a and b sig diff at p<.05 in two way compaison		41

Study	Intervention/ control condition	Measure used	When measured	Results for intervention group Mean * (SD where given) unless otherwise stated	Results for no intervention control Mean (SD where given) unless otherwise stated	Results for population control group Mean (SD where given) unless otherwise stated	Between groups comparison – statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
		Positive affect accuracy		0.4419	-0.2000	0.4194	F=1.6304, p=.20		
		Total accuracy		1.6744^{a}	-0.1000^{b}	1.0323^{a}	F=3.2504, p=.04 a,b denotes groups a and b sig diff at p<.05 in two way comparison		
Orel et al, 2003	Psycho-educational intervention/None	N of children able to exchange support with other group members	After intervention only	11/11					31
Verdeli et al, 2004	Interpersonal psychotherapy/ None	SAICA	Baseline (n=10)	2.0 (0.4)					53
			Week 12 (n=8)	1.8 (0.3)				Random regression analysis E>0.01, p=.34	
		C-GAS	Baseline (n=10)	58.4 (7.5)					
			Week 6 (n=8)	60.1 (8.8)					

Study	Intervention/ control condition	Measure used	When measured	Results for intervention group Mean * (SD where given) unless otherwise stated	Results for no intervention control Mean (SD where given) unless otherwise stated	Results for population control group Mean (SD where given) unless otherwise stated	Between groups comparison – statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
			Week 12 (n=9)	63.1 (8.0)				Random regression analysis E> 0.40, P=.24	
Education									
Hanrahan et al, 2005	Care management and problem solving/None	Enrolment in school	6m	All children in mother's care (n=26) were in school. 47% of these in special educational programmes					26

* C-GAS and SAICA – higher scores indicate improvement.
C-GAS Children's Global Assessment Scale
SAICA – Social Adjustment Inventory for Children (derived from Social Adjustment Scale)

Parenting outcomes

Five non-RCT studies reported some aspect of parenting as an outcome, all using different measures. Three used some formal measure of parenting behaviour, two of which reported statistical testing of change from baseline to follow-up. Croake and Kelly (1985) reported statistically significant positive change in maternal attitudes towards child rearing and child-rearing practices after family therapy, and that these changes were similar in families where the father was depressed and those where he had schizophrenia. They also claimed similar patterns of change to those seen in mothers from a general population enrolled in ‘parent study groups’. Hye Ha and Ja Oh (2006) claimed significant change in an aspect of parental sense of competence (possibly the anxiety sub-scale) after group CBT, but did not report the results of any of the other parenting measures they used in their study. This suggests, perhaps, that no other measures showed positive change. The third study that used a formal measure (Brunette et al, 2004) reported mean values on the home environment measure 12 months after parents with severe psychiatric difficulties received integrated family treatment; these were higher than at baseline, but no statistical testing was reported.

The report of the Emerson-Davies FDC (2000) – a residential family centre – claimed that parental ‘level of functioning scales’ in relation to parenting skills and parental activities of daily living were significantly higher at discharge from the scheme, but no results were reported directly.

Finally, Sheppard (2004) reported the numbers of depressed mothers in touch with care management services needing help with their children ‘a little’ and quite a bit’ and from where they received support. The overall conclusion from this study is that mothers expressing higher levels of need are, generally, little more likely to have that need met than are mothers expressing lower levels of need. However, it is impossible to ascribe any causative link here or, indeed, to speculate about any possible direction of the link. This is clear from the results in relation to mothers who said that they needed help with the long-term care of their children. Here those requiring ‘a little’ help were significantly more likely to receive that help than those needing help ‘quite a bit’. As Sheppard (2004) suggests, this may be because those with lower levels of need already had their children in long-term care.

Family level outcomes

Thirteen non-RCT studies reported outcomes relating to some aspect of family functioning or structure (Table 5.12).

Family functioning

Four studies reported family functioning as an outcome using formal measures, though none of them used the same one.

Table 5.11: Parenting outcomes reported in non-RCT studies

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean * (SD where given) unless otherwise stated	Results for control group Mean (SD)	Between groups comparison – statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
Croake and Kelly, 1985	Adlerian Family Therapy/None but used comparative data	ATCRS	Baseline	Schizophrenic 3.25 Depressed 3.36				24
			Week 4	3.03 2.92				
			Week 10	2.64 2.46				
			Week 14	2.43 2.25				
			Post-intervention	2.29 2.16		No difference between two groups in progress, and also similar to mothers from general population enrolled in parent study groups	F[4,232] = 117.93, p<.001	
		CRPS	Baseline	Schizophrenic 48.37 Depressed 49.77				

Study	**Intervention/control condition**	**Measure used**	**When measured**	**Results for intervention group Mean * (SD where given) unless otherwise stated**	**Results for control group Mean (SD)**	**Between groups comparison – statistical test results and reported significance**	**Within group comparison – statistical test results and reported significance**	**Quality**
			Week 4	47.41 45.96		F [4,232] = 4.66, p<.001. Depressed mothers showing faster rate of change in first 4 weeks		
			Week 10	40.27 37.77				
			Week 14	33.48 33.58				
			Post-intervention	33.27 33.38			F[4,232] = 432.06, p<.001	
Not given 2000 Emerson-Davis Family Development Center	Family residential development centre/None	'Level of functioning scales' not otherwise described: parenting skills scale and parental activities of daily living skills	At discharge from scheme	Not reported			X^2 = 4.26, df = 1, p ≤.05	2
Brunette et al, 2004	Integrated family treatment/None	HOME	Baseline	35.5 (7.7)				41
			12m	41.0 (4.6)			None reported	
		N of parents improving one or more parenting skills	12m	6/7				

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean * (SD where given) unless otherwise stated	Results for control group Mean (SD)	Between groups comparison – statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
Sheppard, 2004	Direct social work and indirect work through other agencies/None	N of those needing help with children ‘a little’ and receiving it from different sources	Survey-based, post-hoc	15/24 from direct social work with children 9/24 from relief care services for children 11/24 from practical support services 8/24 from long-term care of children 9/24 from direct work with children from other services			Statistical tests reported for all but are difficult to understand and interpret	20

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean * (SD where given) unless otherwise stated	Results for control group Mean (SD)	Between groups comparison – statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
		N of those needing help with children 'quite a bit' and receiving it from different sources		26/44 from direct social work with children 20/44 from relief care services for children 25/44 from practical support services 8/44 from long-term care of children 18/44 from direct work with children from other services				
Hye Ha and Ja Oh, 2006	Cognitive Behavioural Group Therapy/waiting list control	PSCS – anxiety sub-scale? Not clear from paper Results of other parenting measures are not reported	Pre-treatment	Not reported				19

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean * (SD where given) unless otherwise stated	Results for control group Mean (SD)	Between groups comparison – statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
			3 months	Not reported			T[14] = 2.98, p<.05	

* HOME – increased score indicates improved parenting/home environment. ATCRS – decreased score indicates improved attitudes towards child-rearing. CRPS – decreased score indicates more democratic child rearing behaviour by mothers as observed by fathers with MHPs.

List of abbreviations

ATCRS	Attitudes Towards Child-Rearing Scale
CRPS	Child-Rearing Practices Scale
HOME	Home Observation for Measurement of the Environment
PSCS	Parenting Sense of Competence Scale

Table 5.12: Family level outcomes reported in non-RCT studies

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean * (SD where given) unless otherwise stated	Within group comparison – statistical test results and reported significance	Quality
Measure of family functioning						
Cowell et al, 2000	Problem solving nursing intervention/None	FFFS	Pre-intervention	12.75		21
			Post-intervention	14.25	t= 0.33, ns In addition, reports change scores, but excluding the one mother whose score increased significantly over the period. On this basis a significant change is claimed: t=3.45, p=.026	
Orel et al, 2003	Psycho-educational intervention/None	FAM – task accomplishment – mean (percentile) Parent score *Child score*	Pre-intervention	56 (73) *54 (66)*		31
			Post-intervention	57 (74) *54 (66)*	'No change' *'No change'*	
		FAM – role performance mean (percentile) Parent score *Child score*	Pre-intervention	56 (73) *54 (66)*		
			Post-intervention	61 (85) *55 (67)*	'Increased dysfunction' *'No change'*	
		FAM – communication mean (percentile) Parent score	Pre-intervention	61 (86) *60 (84)*		

Study	**Intervention/control condition**	**Measure used**	**When measured**	**Results for intervention group Mean * (SD where given) unless otherwise stated**	**Within group comparison – statistical test results and reported significance**	**Quality**
		Child score				
			Post-intervention	61 (86) *54 (66)*	‘No change’ *‘Improved’*	
		FAM – affective expression mean (percentile) Parent score *Child score*	Pre-intervention	66 (95) *61 (86)*		
			Post-intervention	59 (81) *56 (73)*	‘Improved’ *‘Improved’*	
		FAM – involvement mean (percentile) Parent score *Child score*	Pre-intervention	64 (92) *46 (35)*		
			Post-intervention	80 (99) *46 (35)*	‘Increased dysfunction’ *‘No change’*	
		FAM – control mean (percentile) Parent score *Child score*	Pre-intervention	54 (66) *50 (50)*		
			Post-intervention	50 (50) *41 (18)*	‘Improved’ *‘Improved’*	
		FAM – values and norms mean (percentile) Parent score *Child score*	Pre-intervention	62 (89) *54 (66)*		
			Post-intervention	52 (58) *48 (42)*	‘Improved’ *‘Improved’*	
Brownrigg et al, 2004 Place et al, 2002	Psycho-education intervention for children and parents/None	FACES – adaptability score	Baseline	20.5 (14.7)		13
			Post-intervention	32.9 (6.9)	t = 3.82, p<.005	

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean * (SD where given) unless otherwise stated	Within group comparison – statistical test results and reported significance	Quality
		FACES – cohesion score	Baseline	25.4 (17.2)		
			Post-intervention	36.4 (7.1)	t = 2.96, p<.005	
Nielsen, 2005	Family therapy/None but used comparative data	FES – cohesion sub-scale	Before and after intervention	Not reported	Paired t test result not given, p=.01	32
		FES – conflict sub-scale	As above	Not reported	Paired t test results not given p=.07	
		FES – expressiveness	As above	Not reported	Paired t test results not given, p=.05	
		FES – organisation	As above	Not reported	Paired t test results not given, p=.67	
		FES – control	As above	Not reported	Paired t test results not given, p=.06	
		FES – independence	As above	Not reported	Paired t test results not given, p=.03	
		FES – achievement orientation	As above	Not reported	Paired t test results not given, p=.03	
		FES – recreational orientation	As above	Not reported	Paired t test results not given, p=.03	
		FES – intellectual cultural orientation	As above	Not reported	Paired t test results not given, p=.12	
Children's place of residence/care placement						
Waldo et al, 1987	Mother and Children's parenting and early intervention project/ None	N of non-adult children living with mothers and elsewhere [2]	Entry to programme	26/45 with mother 7/45 permanently with other relatives 2/45 adopted 10/45 in 'protective custody'		18

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean * (SD where given) unless otherwise stated	Within group comparison – statistical test results and reported significance	Quality
			6 months	32/45 with mother 7/45 with other relatives permanently 4/45 adopted 2/45 in 'protective custody'		
Pasquariella, 1996	Therapeutic unit/None	N living with parents	6-12m after intervention	25/25		20
Hawes and Cottrell, 1999	Psychiatric hospital admission/None	N of children of married mothers moving elsewhere while mother in hospital	During mother's hospital stay	4/40		48
		N of children of lone mothers moving elsewhere while mother in hospital	During mother's hospital stay	8/13 Discrepancy in text – numbers given suggest 9/13		
Not given 2000 Emerson-Davis Family Development Center	Family residential development centre/None	Family reunion	Before	Parents and children 'typically' separated for more than 2 years		2
			Probably 1994-2000?	63 children reunited with 45 families 23/30 families moving out of 'congregate residence' did so with family intact		
Not given 2003 FSS/PACE programme	Family support service/None	Foster care and 'out of home' placements	1995-1999	Decreased by 80%		17

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean * (SD where given) unless otherwise stated	Within group comparison – statistical test results and reported significance	Quality
Brunette et al, 2004	Integrated family treatment/None	Custody of children	12m	1/8 regained custody 2/8 lost 5/8 no change		41
			2001-2	No change		
Alder, 2005	Assertive outreach programme/None	N reporting help with retaining custody	During project	3/13 reported support in group ‘central to keeping their children’		32
Hanrahan et al, 2005	Care management and problem solving/None	N living with mother	Intake (N≈86[1])	43/86		26
			6m (N=43)	35/43 with mother 8/43 entered foster care		
			12m	27/35 with mother 8/35 not Excludes children of 5 mothers who left programme		
Involvement with children’s services						
Bassett et al 2001, 2003	Parenting skills programme with activities for children and monitoring/None	N of parents with ‘involvement’ with social services	Before	11/34		11

Study	Intervention/control condition	Measure used	When measured	Results for intervention group Mean * (SD where given) unless otherwise stated	Within group comparison – statistical test results and reported significance	Quality
			After	6/34 regained ‘full residency’ of children 1/34 discharged from group because child placed in permanent foster care		

* FACES – increased scores indicates improvement in behaviour measured. FAM – change in score has various meanings depending on aspect of family functioning being reported – see review text for interpretation. FES – change in score indicates improvement depending on polarity of the item i.e. increased score on a positive item indicates improvement and an increased score on a negative item indicates deterioration. FFFS – reduced scores indicate increased satisfaction with family functioning.

1. Base N estimated by us - 24 mothers x mean no of children 3.6 = 86.4
2. Calculated by us from numbers given in paper

List of abbreviations

FACES II	Family Adaptability and Coherence Evaluation Scales
FAM	Family Assessment Measure
FES	Family Environment Scale
FFFS	Feetham Family Function Survey

Reporting of results was generally poor. For example, Cowell et al (2000) report no significant change in a family functioning measure but then represent the results excluding the one mother whose scores had deteriorated. Nielsen (2005) claims a number of statistically significant, positive changes in sub-scales of a family environment measure but presents neither the direct results nor the t statistic for the paired t test. Orel et al (2003), conversely, present direct results but no statistical testing. Brownrigg et al (2004) and Place et al (2002), however, report both mean scores and the results of statistical testing.

Overall, there is no consistent message from these four studies. One psycho-education intervention for depressed parents and their children (Brownrigg et al, 2004; Place et al, 2002) showed highly significant change over time in family adaptability and cohesion. Another – for the children of parents with a range of MHPs (Orel et al, 2003) – showed a mixed pattern of improvement, no change and increased dysfunction across different sub-scales and with different results for children's and parents' judgements. The areas where both parents and children reported improvement were affective expression, family control, and family values and norms. A problem-solving, nursing intervention for Mexican American mothers 'at risk' of depression (Cowell et al, 2000) showed no change in total family functioning. By contrast, a family therapy intervention for families with 'family problems' and at least one parent with a MHP (Nielsen, 1996) claimed significant change in relation to family cohesion, expressiveness, independence, achievement orientation and recreational orientation and no significant change in relation to family conflict, organisation, control and 'intellectual cultural orientation'.

Children's place of residence or care placement

Eight non-RCT studies reported children's place of residence or placement in 'care' as outcomes. The messages from these studies were very mixed.

The Brunette et al (2004) study (of integrated family treatment with parents with severe psychotic or mood disorders) and the Hanrahan et al (2005) study (of care management and problem solving for homeless mother with MHPs) reported poorer outcomes, in terms of separation of children from their birth families, over the time of the intervention. By contrast, the Waldo et al (1987) study of a parenting and early intervention project for mothers with schizophrenia and the FSS/PACE (2003) family support programme, for PMHPs who had experienced 'intensive' psychiatric treatment, reported improvements in the proportions of children living with their families after the intervention.

Three other studies reporting outcomes in this general area did not give formal 'before and after' figures. Pasquariella (1996) claimed that all children of parents with severe and chronic MHPs who had attended a therapeutic nursery were living with their parents six to 12 months after the intervention. Alder (2005) reported that three out of 13 parents with severe and enduring MHPs said that the support of an assertive outreach programme was central in their being able to retain custody of their children. The residential centre that worked with mothers with MHPs and a history of homelessness

(Emerson-Davis FDC, 2000) was said to have resulted in 63 children being reunited with 45 families over the period (unspecified) being described.

The final study in this sub-section (Hawes and Cottrell, 1999) reported what happened to children when their mothers were admitted to acute psychiatric care. Four out of 40 children of married mothers had to move from their homes during their mother's hospital stay, while eight (or possibly nine – the table and text are contradictory) out of 13 children of lone mothers had to do so.

Involvement with children's and families services

One study of a parenting skills programme for parents with a 'major' MHP (Bassett et al, 2001, 2003) reported the number of parents involved with children's and families services. Although not specified in the published papers, the implication appears to be that there were anxieties about childcare in these families. Before the intervention, 11 out of 34 parents had such contact. After the intervention six out of 34 parents were said to have regained 'full residency of the children', while one parent had been excluded from the intervention because her child had been placed in 'permanent foster care'.

Mother and child relationship

Only two non-RCT studies reported any aspect of the relationship between mothers and their children as outcomes (Table 5.13).

Free et al (1996), in post-hoc analysis of a large survey, compared depressed mothers who had received psychotherapy with those who had not and with mothers who were not depressed. Analysis of variance tested differences across the three groups and found these were statistically significant in relation to the accuracy of mother's communication of negative affect to her child. However, paired t tests showed that the difference between the depressed mothers who had not received psychotherapy and the mothers who were not depressed accounted for this difference. The three groups were not significantly different overall in relation to the communication of positive affect. When the scores for negative and positive affect were combined, the overall analysis of variance again showed significant differences (presumably driven by the results for negative affect) and the paired t tests this time showed that the depressed mothers who did not receive psychotherapy were significantly less accurate in overall communication of affective language than both the other two groups.

Hye Ha and Ja Oh (2006) used measures of parent and child interaction and parts of the Social Adjustment Scale to examine change in mother and child relationships after depressed mothers participated in group CBT. As discussed earlier, results in this study were reported only partially. There was a significant group by time interaction in relation to mothers' punishing or coercive behaviour towards their children, although no main effect for group was reported. Rather, paired t tests were said to show that the intervention group improved while the waiting list control group did not. Results for another element of parent and child interaction – respect for the child's opinion – were also reported and, again, a significant group by time interaction effect was shown. However, the paired t test for the intervention group this time showed a difference that was below conventional levels of statistical significance.

Finally, a statistically significant group by time effect was reported for the parent and child relationship sub-scale of the Social Adjustment Scale, along with another significant paired t test for the intervention group.

Costs

Five studies referred to some aspect of the cost of providing or using the interventions described. As Table 5.14 shows, these data are very limited and in no case can be considered adequate for formal cost comparison with other methods of supporting PMHPs.

Discussion

Limitations of the material reviewed

As we pointed out at the beginning of this chapter, most of the non-RCT studies included here were not evaluations of one intervention compared to another, or even of an intervention compared with 'usual care'. Rather, most were apparently set up to assess whether a particular intervention had some sort of effect, using a pre-test-post-test design. In other words, they were simple efficacy studies or, using the terms recommended by the Medical Research Council (MRC, 2000) should be seen as (very early in our view) phase II or exploratory trials. The problem with all such studies, of course, is ascribing causation when other factors, including Hawthorne or placebo effects and the simple passing of time, may also have been involved.

It is possible to do well-designed research without a control group to assess whether an intervention appears to have an effect. Interrupted time series (ITS) designs, where primary outcomes are measured on a number of occasions (at least three) before intervention and then after (again, on at least three occasions) are intended to deal with exactly this sort of question. However, none of the non-RCT studies without a control group reviewed here described themselves as ITS studies and none had the design features that would be necessary to allow us to describe them as good quality ITS studies (see EPOC, 2002).

Table 5.13: Mother and child relationship outcomes in non-RCT studies

Study	Intervention/ control condition	Measure used	When measured	Results for intervention group Mean (SD where given) unless otherwise stated	Results for no intervention control Mean (SD where given) unless otherwise stated	Results for general population control Mean (SD where given) unless otherwise stated	Between groups comparison – statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
Free et al, 1996	Psychotherapy/ usual care/mother without MHP	Mothers' affective language communication accuracy – negative affect	Post-hoc analysis of data from larger study – single point of measurement	1.2791	-0.3000^{B}	0.7419^{a}	ANOVA F=4.6816, p=.01 a,b denotes groups a and b sig diff at p<.05	-	41
		Mothers' affective language communication accuracy – positive affect		0.6667	0.2000	0.8065	ANOVA F=1.1768, p=.31		
		Mothers' affective language communication accuracy – total		1.5484^{a}	-0.1000^{b}	1.9535^{a}	ANOVA F=3.5857, p=.03 a,b denotes groups a and b sig diff at p<.05	-	

Study	Intervention/ control condition	Measure used	When measured	Results for intervention group Mean (SD where given) unless otherwise stated	Results for no intervention control Mean (SD where given) unless otherwise stated	Results for general population control Mean (SD where given) unless otherwise stated	Between groups comparison – statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
Hye Ha and Ja Oh, 2006	Cognitive Behavioural Group Therapy/ waiting list control	PCIS – punishing or coercive behaviour	Pre-treatment Post-treatment	Not reported	Not reported	-	Group x time interaction effect F[1,32] = 7.02, p<.05	Intervention group paired t test t[16] = 2.75, p<.05 Control group t not reported but said to be ns	19
		PCIS – respect for child's opinion		Not reported	Not reported	-	Group x time interaction effect F[1,32] = 4.33, p<.05	Intervention group paired t test t[16] = -1.92, p=.07 Control group t not reported but said to show opposite (negative) trend	

Study	Intervention/ control condition	Measure used	When measured	Results for intervention group Mean (SD where given) unless otherwise stated	Results for no intervention control Mean (SD where given) unless otherwise stated	Results for general population control Mean (SD where given) unless otherwise stated	Between groups comparison – statistical test results and reported significance	Within group comparison – statistical test results and reported significance	Quality
		SAS – parent child relationship		Not reported	Not reported	-	Group x time interaction effect F[1,32] = 6.11, p<.05 Change score t[14] = 2.4, p<.05	Intervention group paired t test t[16] = 3.25, p<.01 Control group not reported but said to be ns	
		SAS total score		Not reported	Not reported	-	Change score t[14] = 2.62, p<.05		

PCIS Parent Child Interaction Scale
SAS Social Adjustment Scale – adjusted for self-report

Table 5.14: Costs data reported in non-RCT studies

Study	Intervention/control condition	Measure used	Year	Costs	Quality of overall study
Waldo et al, 1987	Mother and Children's parenting and early intervention project/None	Per capita cost of providing intervention	1987	$1200 per participant	18
Kendall and Peterson, 1996	Mental health services, including psychotherapy/None	Cost of using service	Not stated	Lowest fee for service is $10 per hour for individual and family therapy, and 5$ for group therapy. About 33% of clients not covered by insurance and pay between $10 and $20 per hour for services	9
Not given 2000 Emerson-Davis Family Development Center	Family residential development centre/None	Total budget	1999	$1,505,604	2
Papworth et al, 2001	Group meetings/None	Costs savings associated with reduction in GP visits		£720 per participant. Claimed to be enough to cover salary costs of member of staff to run the groups	29
		Annualized per person cost for services	1999	$19,33 or $53 a day This is said to be 75% of traditional New York City shelter and foster care programmes	
Not given 2002 Arkansas CARES	Residential treatment of dual diagnosis conditions, with intensive aftercare/None	Total annual budget	2003	$3.3m	2
		Cost of client and two children staying in intensive treatment community for 4-5m and receiving 12-18m of aftercare services	2003	$19,500 Is estimated that programme can treat 12 families for what it costs to imprison one mother and place three of her children in foster care	

Several of the studies did explicitly describe themselves as pilot or feasibility studies, but we have found little evidence that they ever progressed to formal evaluation with adequate control groups (see Appendix 3). The most that can be said of all but one of the studies, then, is that the interventions are associated with some changes in outcomes over time, but not that the intervention **caused** these changes. The one study that did have a 'control group' was so poorly reported that no claims for relative effectiveness could be made.

Further, as the results of the quality assessment suggests (Table 2.6) the studies were predominantly of poor quality overall, in terms of their reporting, external and internal validity and selection bias (where this was relevant). Only two studies (Bogard et al, 1999; Verdeli, 2004) scored a mean of 50 or over (out of 100) on the quality assessment tool used[17], and a further three (Brunette et al, 2004; Free et al, 1996; Pitman and Matthey, 2004) between 33 and 49.

Finally, most of the non-RCT studies reviewed were very small. As Table 2.3 showed, only one study (Bogard et al, 1999) involved more than 100 parents or families, and this included those who did not have MHPs as well as those who did. In all, 11 studies involved 25 or fewer parents or families.

Overall conclusions from the non-RCT studies reviewed

Given the limitations outlined above, there is little robust evidence to glean from the studies reviewed and synthesised in this chapter. In this final section, then, we confine ourselves to outcomes that were reported in more than two studies, where the studies had a mean quality score of more than 33 (out of 100). The five studies included here were:

- Bogard et al (1999) which explored the impact of shelters for homeless families on PMHPs.
- Brunette et al (2004) which explored the impact of integrated family treatment on parents with severe psychiatric difficulties.
- Free et al (1996) which explored the impact of psychotherapy on depressed mothers.
- Pitman and Matthey (2004) which explored the impact of a psycho-educational programme for children of parents with MHPs.
- Verdeli et al (2004) which explored the impact of interpersonal psychotherapy on mothers being treated for clinically diagnosed depression.

1. Impact on parental mental health problems

Three studies of slightly higher quality reported parental mental health as an 'outcome'. These were: Bogard et al (1999), Brunette et al (2004) and Verdeli et al (2004). Only Verdeli et al (2004) reported statistically significant improvement in parental mental health over time associated with the mothers' receipt of interpersonal psychotherapy.

Given the current evidence base for the effectiveness of various forms of psychotherapy for depressive symptoms (see, for example, King et al, 2000), the finding from Verdeli et al (2004) is hardly surprising. There is no obvious reason to suppose that parents would react to such interventions in a different way from any other adults. Indeed, given that many non-elderly adults **are** parents, one must assume that most, rigorous, controlled evaluations of psychotherapeutic interventions have included parents in their samples. However, without control groups, this study cannot tell us whether change over time would have taken place for these parents anyway, or whether the intervention studied was any better or worse than any other intervention or ‘usual care’.

2. Adherence to the intervention

Three studies of relatively higher quality reported adherence to the intervention being studied. These were Brunette et al (2004), Pitman and Matthey 2004), and Verdeli (2004). Drop-out rates in these better designed studies were still high – ranging between 12.5 per cent and 32 per cent.

3. Impact on aspects of children’s social functioning

Two studies of relatively higher quality reported impact on some aspect of children’s social functioning. Verdeli et al (2004) reported no significant change in the two measures of social functioning used for children whose mothers had received interpersonal psychotherapy. Free et al (1996) reported that children whose depressed mothers had received psychotherapy were more accurate in their recognition and reporting of ‘negative affect’ language but no more accurate in their recognition and reporting of ‘positive affect’ language, compared to children whose depressed mothers had not received psychotherapy or children whose mothers were not depressed. However, as reported earlier, this study was based on post-hoc analysis of results from a much larger, longitudinal study.

This further synthesis of outcomes reported by more than one of the slightly higher quality non-RCT studies does not seem to add anything to our earlier conclusion that there is little robust evidence to be gleaned from this element of this review.

Notes

1. The project team did not want to predefine the notion of accessibility, as part of the work of the review was to identify factors that affect or contribute to accessibility. However, aspects of service access covered by this review included physical, social, organisational, geographical/location, cultural and economic factors. Both users and professional views on access were examined. Similarly, it was not possible to pre-define acceptability, as part of the work of the review was to identify factors that affected or contributed to what makes a service acceptable. Users', family members' and professionals' views on acceptability were examined.

2. The words 'service' and 'intervention' are loosely defined and inconsistently used by practitioners and academics alike. The project team's understanding of these terms is that an intervention is a discrete activity that can be defined in terms of its methods and purpose (though the specificity of this definition varies from intervention to intervention). Services are typically made up of one or more interventions, which are not necessarily provided or delivered in an identical way to every user. As defined in the commissioning brief, interventions or services include those provided by children's, adults and family services which 'support children, whole families, parenting and/or couple relationships in families with children, where a parent already has an MHP' (SCIE, 2006: 4) and these may be provided by, among others, health, social services, education/early years and the voluntary sector. In addition, the review excludes all physical, pharmacological or physiological clinical interventions.

3. As in the SCIE commissioning brief (p.4) children were defined as: 'children 18 years or younger, some of whom will be "young carers"'.

4. For the purposes of this work parents were 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. The definition of 'mental health problem' was that laid down in the SCIE commissioning brief (p.4) and comprised '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 did **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). Further, apart from the additional searches carried out by the York team, no terms designed to identify material about parents with personality disorders were used in the searches. In the event, no papers about personality disorder were selected from these additional searches.

6. Outcomes were defined by the research team as anything that happens to a service user and/or family members as a result of any intervention or service which is reported by research. Clearly, the evidence on the outcomes of interventions or services were limited to the outcomes reported by researchers, and the way in which outcomes were measured or recorded. This may not, therefore, present a complete picture of the outcomes of services/interventions used by parents with MHPs and/or family members.

7. Structured enquiry included audits, inspections and other structured activity that was not research.

8. The protocol for this review stated that we would include all study types for this question. Once the material had been selected and read it became clear that studies that did not include any comparative data were of little use in examining the impact of interventions. The selection criteria for this question were consequently refined in relation to study type such that only RCTs or other, non-RCT comparative studies were included.

9. The quality criterion of double-blinded assessment is clearly not achievable in studies where the alternative to the intervention being evaluated is nothing or ‘usual care’. As in previous systematic reviews of models of care carried out by the York group (Parker et al, 2000; Parker et al, 2006) we therefore used a truncated version of the Jadad criteria.

10. ‘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).

11. These are just examples of possible support needs. The scope of the searches conducted for this review did not include perceived needs.

12. This could include access to other mental health services, if sought.

13. When all people randomized in an RCT are kept in the trial data set and analysed according to the group to which they were randomized (Shepperd et al, 1997).

14. Our rerunning of the chi-squared test (see Appendix 7), which examined the distribution of attachment types across all three groups, shows that certain cells were more important in influencing the statistically significant difference than were others. The much higher proportion of ‘secure’ children in the non-depressed control groups and the lower proportion of ‘secure’ children in the depressed intervention group, along with a much smaller proportion of ‘disorganised’ children in the non-depressed control group, contributed a very large part of the variation observed at baseline (see Table A7.1). As a corollary, the proportion of ‘secure’

children in the depressed control group was not as different from what might be expected as was the proportion of ‘secure’ children in the depressed intervention group. This is important, because it indicates that, while the overall comparison of the two depressed groups showed them to be ‘equivalent’ across the four attachment styles, the depressed control group, in fact, offered less potential for improvement than did the intervention group.

15. All the t-test values reported in the paper are negative, which suggests **reduction** in knowledge pre- and post-intervention. However, the mean values reported indicate an increase in knowledge, so we have assumed that the negative value ts are the result of a typographical error.

16. All the t-test values reported in the paper are negative, which suggests **reduction** in life skills pre- and post-intervention. However, the mean values reported indicate an increase in life skills, so we have assumed that the negative value ts are the result of a typographical error.

17. Although Downs and Black do not suggest that scores should be aggregated in this way.

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Total number of papers identified from R2Q1 papers’ reference lists as being possibly relevant	**126**
Total number of these papers already identified in systematic review searches	**81**
• SCIE searches	42
• SCIE + Database	29
• Potential Relevance searches	6
• Australian systematic review paper	2
• Epidemiology searches	1
• SCO searches	1
Total number of papers identified from R2Q1 papers’ reference lists as being possibly relevant but not identified by other searches	**45**

Review two question two

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Total number of papers identified on reference lists as being possibly relevant	**96**
Total number of these papers already identified in systematic review searches	**68**
• SCIE searches	**31**
• SCIE + Database	**26**
• Potential Relevance searches	**6**
• Australian searches	**4**
• SCO searches	**1**
Total number of papers identified on reference lists as being possibly relevant, not identified anywhere else	**28**