



REPORT

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Young people and mental health: a systematic review of research on barriers and facilitators

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A searchable database of the studies included in this review, alongside this report, is available on the EPPI-Centre website (<http://eppi.ioe.ac.uk>)*

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PREFACE

Who needs to read this report?

This systematic review has synthesised the research evidence to assess what is known about the barriers to, and facilitators of, good mental health amongst young people (aged 11 to 21), with a view to making recommendations about how their mental health can be promoted. There are many useful messages contained within the review for policy-makers, commissioners, practitioners, health care consumers (e.g. young people, parents) and researchers who have a remit to promote or conduct research on, mental health promotion amongst young people. In particular, the key messages of this review can help:

- policy-makers by highlighting where current policy relevant to promoting young people's mental health is supported by research evidence and where there are contradictions/gaps;
- health authorities and other services involved in delivering standard one¹ of the National Service Framework for Mental Health (DoH, 1999a) to examine the evidence-base for action within this population group;
- health and education partnerships involved in National Healthy Schools Standard to advise schools on which school-based interventions can be effective in promoting mental health (and which interventions are ineffective or harmful and which do not yet have evidence of effectiveness); and
- services to gain an insight into what young people think should be done to promote their mental health and thus support the NHS's commitment to involving the public in the development and delivery of services (DoH, 1999b)

Since part of the reviewing process involved assessing the amount and quality of the evidence available to services to help them promote mental health, this review also:

- outlines a future research agenda for promoting young people's mental health; and
- makes recommendations for how this research may best be conducted.

Mental health is a very broad term which encompasses a huge variety of states of being. Preventing mental health problems and promoting good mental health is necessarily part of the remit of a range of public services and their partners. Because of this, difficult decisions were taken to focus the review on particular areas in order to make conducting a systematic review within a specified period of time manageable. To ensure that this process still resulted in a useful review, the review was commissioned in two stages: a mapping stage to describe the characteristics (but not the findings) of all the research literature relevant to

¹ Standard one of the National Service Framework for Mental Health states that health and social services should "promote mental health for all, working with individuals and communities; combat discrimination against individuals and groups with mental health problems and promote their social inclusion" (DoH, 1999a:14)

mental health promotion; and an in-depth review stage which synthesised the findings of a sub-set of this literature. The results and key messages to come out of both of these stages are presented in this report. The sub-set of studies for in-depth review was chosen in consultation with the EPPI-Centre Steering Group, a group representing health promotion policy-makers, practitioners and researchers. The focus of the in-depth review was:

- the effectiveness of interventions concerned with the primary prevention of suicide and/or depression; the promotion of self-esteem and/or coping; and the promotion of mental health as a general concept
- the views of young people on what they think are the barriers to, and facilitators of, their mental health and on what should be done to promote their mental health

Therefore the review **does not** examine **in-depth**, evaluations of interventions which *specifically* aim to prevent eating disorders; anxiety; stress; or problem behaviour.

How to read this report

Because this review is a *systematic* review, and uses explicit and rigorous methods to synthesise the evidence in this topic area, the report is necessarily lengthy. Complexity and length have also been increased because the review synthesises evidence from 'qualitative' research together with experimental evaluations of interventions, something which traditional systematic reviews do usually not do. Some readers will be interested in the whole review to get a overall picture of, not only the findings of the review, but about how we came to those findings. Others will want to be directed to the parts most relevant to their needs. The following guide will help readers make these decisions.

All readers are advised to read the **executive summary**. This gives an overall picture of the findings of the review and ends with explicit recommendations for:

- the types of interventions which have been demonstrated (through high quality evaluations) to have positive effects for promoting mental health amongst young people (and the types which have NOT been shown to be effective);
- involving and listening to the views of young people in mental health promotion;
- the development of future mental health promotion (i.e. those interventions which look promising but which need to be developed and tested further; gaps in the kinds of interventions which have been evaluated); and
- how to best evaluate mental health promotion.

Taken together, these recommendations emphasise the need for different readers to work in partnership with each other to build on the current evidence-base. A fuller description of the recommendations, explaining clearly how they have been derived, are given in the section '**Conclusions and Recommendations**' at the end of the report.

The individual chapters flesh out in more detail the above sections. Readers who want:

- ***detailed information on effective interventions and how to implement them*** (e.g. practitioners, service commissioners, policy specialists) may be most interested in **chapter 5** (especially ‘findings from systematic reviews’ in section 5.1 and ‘which interventions are effective’ in section 5.2) and **chapter 7**. Chapter 5 details the types of interventions shown to be effective in high quality evaluations whilst chapter 7 illustrates whether/how these interventions match young people’s views on the barriers to, and facilitators of, their mental health.
- ***details of the views of young people on their mental health and how it might be promoted*** (e.g. practitioners, service commissioners, policy specialist, researchers) may be most interested in reading **chapter 6** (especially section 6.5) and **chapter 7**. Chapter 6 describes the findings of studies which elicit young people’s views, while chapter 7 compares young people’s views on mental health promotion to the kinds of strategies that have been evaluated.
- ***guidance on the kinds of interventions they should be developing and testing further and why*** in partnership with a range of stakeholders (e.g. practitioners, service commissioners, policy specialists, researchers, research commissioners) may be most interested in reading **chapter 7**.
- ***a discussion of how the findings of the review relate to current policy and practice in mental health promotion*** may be interested in reading **chapter 8**.
- ***to find examples of mental health promotion not covered in the in-depth review*** should read **chapter 3**.
- ***guidance on how to best to evaluate the effectiveness of mental health promotion*** may be most interested in section 8.6 of **chapter 8**.
- ***guidance on how best to involve young people in the development of mental health promotion*** may be most interested in reading section 8.7 of **chapter 8**.
- ***details on the amount and quality of research conducted on the topic of young people and mental health*** (e.g. researchers, research commissioners) may be most interested to read **Chapters 3, 5 and 6**.
- ***to know in detail about the methods used in this systematic review*** should read **chapter 2** and **chapter 4**. A reflection on the methods used in the review is also contained in chapter 8.

EXECUTIVE SUMMARY

This report presents a systematic review of the research literature pertaining to the barriers to, and facilitators of, good mental health amongst young people, especially those from socially excluded groups. This will provide practitioners, policy-makers and researchers with a summary of evidence to help them plan interventions for young people which are likely to be effective in promoting good mental health. The context of the review is the promotion of mental health in general, but with a specific focus on the prevention of suicide and self-harm, and associated depression, and the promotion of self-esteem and coping strategies. It is the first report in a series of reviews collating the evidence on the barriers to, and facilitators of, health behaviour change and attitudes to risk and risk-taking amongst young people. This series of reviews covers three topic areas: mental health; physical activity and healthy eating. An integrated report, due late 2001, will bring together the findings from the three areas.

Mental health promotion and the prevention of mental ill-health is high on the health policy agenda in the UK. Whilst promoting the mental health of young people is an important goal in its own right, young people are a particularly important group, as poor mental health has been linked to other behaviours which are damaging to health and to mental health problems in adulthood. The mental health of young people is compounded by material and social context, such that those at greatest risk belong to groups which are considered to be 'socially excluded'. While this has been known for some time, much less is known about how different social factors interact, and about where and how to intervene successfully.

Methods

This review differed from traditional systematic reviews of effectiveness as it included study types other than experimental evaluations of interventions. This meant developing ways of reviewing 'qualitative' studies and integrating their findings with the results of interventions research.

Literature searches were undertaken for studies examining barriers to, and facilitators of, good mental health amongst young people aged 11 to 21. These studies included evaluations of health promotion interventions examining outcomes ('outcome evaluations') and systematic reviews carried out in any country from around the world. Also included were evaluations of interventions looking at the processes involved ('process evaluations') and non-intervention research carried out in the UK. The review was restricted to studies in the English language and to those studies focused on the primary prevention of mental illness or the promotion of positive mental health. It was carried out in two stages: a mapping and quality screening exercise; and an in-depth review of particular sets of studies.

Results

Mapping and quality screening exercise

The searches developed for the report produced a substantial amount of potentially relevant literature - 11,638 citations. Of these, 345 studies met the inclusion criteria developed for the review, and were available within the

relevant time frame. All these studies were included in the mapping and quality screening exercise which consisted of 187 outcome or process evaluations, 133 reports of non-intervention research, and 25 systematic reviews. Somewhat less than half the studies (43%) focused on the prevention of mental ill-health. Their most common focus was the prevention of suicide or self-harm or behaviour problems; fewer studies focused on the prevention of depression, anxiety problems or eating disorders. The remaining studies (57%) were concerned with promoting positive mental health. These tended to adopt a general approach, dealing with a range of issues such as self-esteem and self-concept or coping skills. Around half (54%) of the studies focused on young people in general, with 32% examining mental health issues in socially excluded groups, and 14% focusing on young people considered to be 'at risk' for mental ill-health. The largest single group of barriers and facilitators focused upon in the studies were those at an individual level (e.g. psychological factors) (34%), with 30% focused on those at a community level (e.g. interpersonal and family factors) and 32% at the level of the broader society (e.g. socio-cultural or structural factors). Compared to the non-intervention research, studies evaluating interventions were much less likely to focus on structural factors (11% versus 20%) and were much more likely to focus on individual level factors (36% versus 19%). Most of the intervention studies were carried out in the USA; only 5% took place in the UK. Most (72%) were undertaken in educational settings. The quality of the studies was very variable. Half of the outcome evaluations (49%) were judged to have 'potentially sound' methodological attributes to be able to make reliable conclusions about effectiveness. The reporting of crucial details on sampling and sample characteristics within the process evaluations and non-intervention research ranged from 98% for reporting on the age of the sample to only 27% for ethnic group.

In-depth review: Systematic reviews of mental health promotion

Seven systematic reviews of effectiveness were included in the in-depth review. Four looked at the promotion of mental health in general, two at suicide prevention, and one at interventions to promote self-esteem. Two meta-analyses reported the methodological quality of the systematic reviews as generally good. The evidence from the seven systematic reviews about the effectiveness of mental health promotion was mixed. Some reviews came to positive conclusions, while others were more negative. Review authors concluded that interventions to promote positive self-esteem have been limited in their effectiveness; these are more likely to be effective if self-esteem is the main focus of the intervention, rather than just one component of a broad mental health initiative. The evidence for the prevention of suicide and self-harm is limited. There is some evidence that discussing suicide with young people may encourage some of them to consider it a viable option for resolving problems.

In-depth review: Outcome evaluations of mental health promotion

A total of 47 outcome evaluations fell within the scope of our in-depth review; 30 of these met our methodological inclusion criteria for 'potentially sound' studies; 16 had already been included in one or more of the seven good quality systematic reviews. Five of the remaining 14 'potentially sound' outcome evaluations met the review's criteria for soundness. Two studies focused on promoting self-esteem, two on preventing depression, and one on suicide prevention. Secondary education was the setting for four of the five

sound studies. The setting for one study was not described. The studies employed various types of intervention and used multiple delivery methods.

Synthesis of the results of these studies suggested limited effects for the promotion of self-esteem. A six week programme to teach young women how to recognise and restructure self-defeating thoughts was effective for improving knowledge about the technique. A course providing information and skill development for young people and their families to promote self-esteem was judged to have no effect on self-concept and to be unclear in its effects on measures of family adaptability and cohesion. The studies on depression prevention showed that knowledge-based sessions of short duration are not effective in improving long-term depressive symptoms, risk factors, knowledge, attitudes or intentions. The one outcome evaluation on suicide prevention was associated with increased knowledge about causes, symptoms and prevention of suicide in young people and their peers but not with improvements in stress, anxiety and hopelessness.

In-depth review: young people's views on mental health

The review included 12 studies of young people's views, carried out in the UK and published since 1990. A number of these claimed to have recruited young people from different social backgrounds, but few details were reported, including about methods of data collection and analysis. The studies contained some useful pointers to aspects of young people's perspectives on mental health that were not recorded in other types of studies. These include the inappropriateness of asking young people about mental health which young people tend to equate with mental illness (and so as a problem belonging to other people and not relevant to their own lives); young people's surprisingly sophisticated understandings of useful coping strategies; their wide range of concerns, from unhealthy school practices to environmental pollution and poverty; and the irrelevance of many traditional health promotion materials and approaches to young people's pragmatic, everyday worries and interests.

Synthesis across study types

A synthesis across study types found there to be some matches but also significant mismatches between, on the one hand, what young people say are the barriers to, and facilitators of, their mental health and, on the other, soundly evaluated interventions which address these barriers or build on these facilitators.

Effective interventions were identified which have addressed to some extent young people's concerns about teachers, parental divorce and conflict; bereavement; and peer rejection. Major gaps were the identification of effective intervention which addressed young people's concerns about workload; academic achievement and engagement in school; future employment/unemployment and financial security; having access to basic rights, resources and support; leisure facilities; dealing with loss of friends and family; violence and bullying; physical appearance. A further gap was the failure to identify effective interventions which built on talking to friends as a favoured coping strategy. These findings represent significant gaps for research and development around promoting young people's mental health. Several potentially relevant and high quality outcome evaluations identified for the descriptive mapping and quality screening, but not the included in the in-depth review, would be a good starting point for such research and development.

Conclusions

There is a large amount of literature available which is potentially informative on the subject of barriers to, and facilitators of, young people's mental health. Much of this is not directly relevant to policy and practice in the UK and is of poor methodological quality. For example, only about half the outcome evaluations found in the review were designed and reported in such a way that they can be viewed as potential sources of reliable evidence about the effectiveness of different approaches to promoting young people's mental health. This means that the pool of potentially informative studies is much smaller than it first appears, and careful scrutiny of the way studies have been carried out is needed before trusting their findings.

Very little of the available good quality research starts from the viewpoint of young people; much of it emphasises the individual rather than the wider society; and only a small number of studies are directly concerned with socially excluded groups.

On the methodological front, identifying reliable 'qualitative' studies and integrating the findings of these with the results of intervention research and systematic reviews is a complex exercise. This review represents one of the first attempts to do this. However, the challenge is worth the effort, since comparing the findings of different kinds of studies shows how different research designs can learn from one another, and which research approaches and topics might usefully be developed in future.

Whilst the evidence base is limited, and mainly based on the findings of research carried out in the USA, together with the findings of the views of young people in the UK, a number of specific conclusions and recommendations can be drawn, as follows.

Recommendations for current mental health promotion policy and practice

- The current evidence on whether, overall, the interventions which have been implemented and evaluated to promote young people's mental health or prevent their mental illness are effective is conflicting. There should be careful consideration about which interventions to implement or whether to intervene at all. It cannot be assumed that what is implemented will be effective.
- If the aim of programmes is to promote self-esteem, interventions need to focus *on* self-esteem rather than on a range of mental health issues.
- There is currently insufficient evidence to recommend school-based suicide prevention. It may be more appropriate for future school-based efforts to frame interventions in terms of helping young people cope with stress and anxiety generally.
- Efforts to prevent mental-illness or promote mental health should not rely on the presentation of information alone but should include skill development components using behavioural techniques which should be reinforced by support at different levels (e.g. classroom, school, home, community, society).

- Young people do not relate to medically or professionally defined concepts such as 'mental illness', 'depression' or 'positive mental health'. Interventions need to make sure that their content and presentation is relevant to the context of young people's everyday lives.

Recommendations for the future development and evaluation of mental health promotion

- Researchers, practitioners and young people need to work in partnerships to develop mental health promotion and rigorously evaluate its effectiveness and appropriateness.
- Young people's views should be the starting point of any future developments in mental health promotion. There needs to be recognition of the diversity of their views according to cultural, social and economic group.
- Interventions which aim to reduce school workload or help young people cope with their school work need to be evaluated further, building on interventions aiming to help young people cope with stress.
- Interventions which aim to improve social relations between teachers and young people have shown some promise but need to be improved and evaluated further.
- The effectiveness of teachers as intervention providers and schools as intervention settings needs to be compared to the effectiveness of other providers and other settings.
- Interventions which aim to modify structural aspects of the school need to be developed and evaluated.
- Interventions which aim to tackle the material and physical circumstances of young people's lives need to be developed and evaluated.
- Interventions which foster supportive relationships within families are promising but need to be improved and evaluated further. It will be important to include both young people and their parents in the development and planning of these.
- The feasibility of developing interventions which foster supportive relationships and facilitate the exchange of advice between friends and their wider peer groups needs to be explored.
- In line with the above, interventions which use 'peer counselling' need to be more rigorously evaluated and interventions to train adults in supportive communication and listening skills need to be developed and evaluated. This latter point fits in with young people's own recommendation that more resources should be put into services such as ChildLine.
- Interventions which aim to reduce depression or promote self-esteem through training in the use of pleasant activities on a daily basis and/or challenging self-defeating thoughts show some promise but need to be improved and evaluated further.

- Interventions which build on other coping strategies identified by young people need to be developed and evaluated.
- Future research should adopt a stronger focus on the mental health needs of young people who are socially excluded and ways to promote the mental health of these groups.

Recommendations for involving young people in the development of interventions

- Young people should always be consulted on matters concerning the promotion of their mental health.
- They should, therefore, be involved as equal stakeholders in future agenda-setting for mental health promotion.
- Researchers need to engage young people in the task of eliciting their views. It is recommended that methods are used which enable young people to express themselves in a manner in which they are most at ease, using lines of questioning and terms which are relevant to the context of their everyday lives.
- Researchers need to explicitly ask young people what they think could or should be done to promote their mental health.
- This review could be considered to be a resource to help practitioners plan and develop interventions in line with young people's views.

Recommendations for conducting future systematic reviews, evaluations of interventions and studies eliciting young people's views

- Future systematic reviews on mental health promotion should not attempt to cover all aspects of mental health. Mental health, like physical health, is a broad area and efforts to cover this breadth may result in an unsatisfactory review product.
- Future systematic reviews should consider using young people's views to help determine the scope of a review in terms of, for example, setting priority topic areas.
- Promising specific topic areas for future systematic reviews, identified as areas of concern by young people themselves, include violence, bullying and concerns about physical appearance and weight.
- Systematic reviews should attempt to provide as much detail as possible on the primary studies they have included in their review. To facilitate this, reviewers should use a standardised data extraction framework and should store the data they extract from each study in such a way that they are accessible for future review updates.
- Outcome evaluations should always attempt to conduct integral process evaluations.
- Outcome evaluations should, where possible, use the design of a randomised controlled trial in order to maximise chances of producing

reliable results. This includes use of this method to evaluate 'structural' or 'community-level' interventions.

- Key aspects of the methodology and results of outcome evaluations need to be reported in a detailed and consistent manner to promote confidence in their rigour. As a minimum benchmark of quality the following should always be reported: pre-test and post-test data for all participants as recruited into the study; enough data to establish the equivalence (or otherwise) of intervention and control groups; and the impact of the intervention for all outcomes targeted.

AIMS

This report is the first in a new series of reviews from the health promotion stream of work at the Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI-Centre)² at the Social Science Research Unit, Institute of Education, University of London. The review series is focused on three topic areas: mental health, physical activity, and healthy eating. This first report describes the findings of an extensive literature review concerned with young people and mental health. The overall aim of the report series is to collate the evidence on the barriers to, and facilitators of, health behaviour change and attitudes to risk and risk-taking amongst young people, especially those from socially excluded groups. This will provide practitioners, policy-makers and researchers with a summary of evidence to help them plan interventions for young people which are likely to be effective in bringing about sustainable behaviour change, and will also identify future research needs. The current report is accompanied by reviews in the areas of physical activity and healthy eating; and a composite report which brings together the findings from the three areas.

The overall series of reviews is guided by the following overarching research questions:

- What is known about the factors which promote or hinder young people's health behaviour change across a number of health topics/settings?
- How well do these factors explain the health behaviour/change of young people?
- Which factors best explain young people's attitude to risk-taking and the relationship between these and health behaviour/change?
- How can we use the conclusions of this research to improve the efficacy of health promotion interventions for young people ?
- What gaps in the research evidence exist, and how might these best be filled?

This series of reviews builds on previous work on systematic reviews of the effectiveness of health promotion (Oakley *et al.*, 1996; Peersman *et al.*, 1996, 1998, see also France-Dawson *et al.*, 1994; Oakley *et al.*, 1994a; Oakley and Fullerton 1994; Oakley *et al.*, 1994b; Oakley and Fullerton, 1995a; Oakley *et al.*, 1995b; Oakley *et al.*, 1995c; Oakley *et al.*, 1995d). The current series of reviews includes a wider range of study types than are normally included in systematic reviews of health promotion effectiveness. One of the central objectives of the reviews is to take further methodological work on identifying criteria for assessing the reliability of evidence from non-experimental studies. Here, the work carried out for the reviews builds on a previous descriptive mapping of health promotion research and young people (Peersman, 1996), and on previous attempts to include non-experimental studies in systematic

²The EPPI-Centre was previously known as the Centre for the Evaluation of Health Promotion and Social Interventions (EPI-Centre)

reviews (Harden *et al.*, 1999).

The aims of the review described in this report were:

1. To undertake a *systematic mapping* of research undertaken on the barriers to, and facilitators of, good mental health amongst young people, especially those from socially excluded groups.
2. To select a sub-set of studies to review *in-depth*.
3. To *synthesise* what is known from these studies about mental health barriers and facilitators amongst young people.
4. To identify gaps in existing research evidence.

This report describes work carried out in two stages: an overall mapping and quality screening of the literature (chapters 2 and 3) and an in-depth review of a subset of this literature (chapters 4, 5 and 6). Chapter 1 sets out the background to the report. The results of the in-depth review are brought together in a synthesis (chapter 7), an overall discussion is presented in chapter 8 and chapter 9 draws conclusions and makes recommendations.

1. BACKGROUND

Outline of Chapter

This chapter sets out the context for this systematic review by outlining a rationale for the importance of promoting young people's mental health; describing prevalence rates and factors associated with mental health problems; and summarising current UK policy relevant to promoting young people's mental health. In addition, it lays out the scope and the approach taken in this systematic review. This chapter will therefore be of interest to all readers of this report.

Key Messages

- *Mental health problems are a considerable cause of morbidity and mortality amongst young people. Mental health can also be seen as a 'resource' for reaching one's full potential. Promoting mental health may have the potential to not only help prevent mental illness but to deliver a wide range of health and social benefits.*
- *Research indicates that socially excluded groups or groups at risk of social exclusion may be at elevated risk for poor mental health.*
- *Research on the determinants of mental health and models of health promotion suggest the need to promote young people's mental health at three main levels: the individual (e.g. through promotion of self-esteem); the community (e.g. through social support); and society (e.g. through tackling social and material inequalities).*
- *Relevant UK policy requires services to promote mental health for all, but makes clear that services need to work within the broader government agenda of tackling social exclusion.*
- *Mental health is a broad term and research on the barriers to, and facilitators of, mental health is extensive. This review was therefore carried out in two-stages: a descriptive mapping and quality screening of all research identified to be relevant and an in-depth review of a sub-set of studies.*
- *The prevention of suicide and depression; the promotion of self-esteem and coping; a focus on young people's own views about the barriers to, and facilitators of, their mental health; and including studies of high methodological quality were identified as important criteria for in-depth review, in consultation with the commissioners and potential users of the review.*

1.1 Why promote young people's mental health?

Although precise rates of mental-ill health are difficult to calculate, it has been estimated that the overall prevalence of diagnosable mental health problems can be up to 25% at any one time amongst children and young people (Health Advisory Service, 1995; Mental Health Foundation, 1999). Taking the most conservative estimates, the children's mental health charity 'Young Mind's' has calculated that within a secondary school of 1000 pupils, these rates translate to 50 pupils being seriously depressed, between five and 10 girls affected by eating disorders, between 10 and 20 pupils with obsessive compulsive disorder and a further 100 suffering significant distress (Young Minds, 1999). The effects of mental health problems cannot be overstated: they create enormous distress and suffering for the young people and those who share their lives; they place increased demands on health, social, education and juvenile justice systems; and they increase the risk of continuing or additional mental health difficulties in adult life. The potential benefits of preventing mental health problems are therefore huge.

Mental health is being increasingly recognised as fundamental to concepts of health. Although there is no widely agreed definition of mental health, there is a general consensus for a shift away from viewing 'mental health' as 'mental illness' to thinking about mental health as also encapsulating the notion of 'positive mental health' or 'mental well-being' (e.g. Trent and Herron, 1999). This review takes such a broader approach to conceptualising mental health and uses the definition of mental health provided by the NHS Health Advisory Service (HAS) in their thematic review of child and adolescent mental health services,

"The components of mental health include the following capacities: the ability to develop psychologically, emotionally, intellectually and spiritually; the ability to initiate, develop and sustain mutually satisfying personal relationships; the ability to become aware of others and empathise with them; the ability to use psychological distress as a developmental process so that it does not hinder or impair further development" (HAS, 1995:15)

With this definition, good mental health does not only involve the absence of mental illness but can be seen as a resource for reaching one's full potential. Promotion of 'positive mental health' is part of what has been termed by some as 'public mental health' (e.g. Friedli, 1999). This directs focus onto the mental health needs of whole communities rather than those labelled as mentally ill. It is proposed that good mental health is a resource not only for individuals but for their communities and wider society.

Whilst promoting young people's mental health and preventing mental illness are important goals in their own right, they may also be a key strategy in the prevention of other health problems. There is increasing evidence to support a role for poor mental health in the aetiology and prognosis of physical illness. Studies have shown that emotional distress can lead to increased susceptibility to physical illnesses such as viral infections and cardiovascular disease and that social and emotional support can protect against premature death through preventing illness or aiding recovery (Stewart-Brown, 1998). For example, in a systematic review of prospective cohort studies Hemingway and Marmot (1999)

found evidence to support aetiological roles for social support, depression and anxiety, and work characteristics (e.g. low control over work) and prognostic roles for social support and depression in coronary heart disease. In addition, psychosocial factors have been proposed as playing a mediating role in the relation between mortality and income inequalities (e.g. Kawachi *et al.*, 1997; Marmot *et al.*, 1997; Marmot and Wilkinson, 2001). Although the majority of these studies have been conducted with adult samples, it seems plausible that preventing mental health problems before they occur and promoting emotional and social support, as well as tackling structural determinants of health, may also help to prevent physical illness amongst young people.

One of the reasons young people have been consistently identified as a key vulnerable group for health promotion (e.g. DoH, 1991; Gillies and McVey, 1996), is that a whole variety of health risk behaviours increasingly occur in the teenage years (Brannen *et al.*, 1994). In addition, young people are also facing potentially health-damaging social and economic conditions such as unemployment and low paid jobs, as they make the transition to adulthood (West and Sweeting, 1996). Although such clustering of health risks may not represent an enduring unhealthy lifestyle (Aggleton *et al.*, 1996), factors which lead young people to take multiple health risks are likely to be intertwined with general risk factors for mental health problems (e.g. unemployment) and/or barriers to positive mental health and well-being (e.g. lack of opportunity, social networks). In a mapping of health promotion research for young people in a number of different areas, Peersman (1996) concluded that different risk and health behaviours are significantly interlinked and that these tend to cluster amongst vulnerable young people at highest risk of adverse outcomes. These findings highlight the need to look in particular at these groups of young people. A related issue is whether mental health underlies risk taking in other health areas. For example, poor self-esteem and depression have been linked to alcoholism and drug abuse, and may be one influence on unsafe sexual behaviour. Thus, effective mental health interventions may well enhance health-related behaviours in other areas.

In summary, promoting young people's mental health has the potential to not only help prevent mental illness and all its associated social and financial costs, but to deliver a wide range of health and social benefits including "improved physical health, increased emotional resilience, greater social inclusion and participation and higher productivity" (DoH, 2001:72). The next section examines in more detail the prevalence of mental health problems amongst young people.

1.2 Patterns of mental health amongst young people

This review defines young people as individuals aged between 11 and 21. Although this is necessarily an arbitrary definition, considering the changing social and service definitions of this population group (HAS, 1995), this broad range is consistent with that used in the health promotion literature (e.g. Aggleton *et al.*, 1996; Peersman, 1996) and is able to include the blurred boundaries between 'childhood' and 'adolescence' and between 'adolescence' and 'adulthood'. Mental health problems vary by age. In a recent survey carried out for the Office for National Statistics the following prevalence rates were observed for those aged between five and 15: conduct disorders 5%; emotional disorders 4% (e.g. anxiety, depression); and hyperactivity 1% (Meltzer *et al.*,

2000). These rates were found to be slightly higher for those aged 11 to 15 who showed an overall rate of 13% for any disorder compared to 10% across the whole age range. Figures from the last National Psychiatric Morbidity Survey conducted in 1994, revealed the rates for any neurotic disorder to be 126 per thousand amongst 16 to 19 year olds and 166 per thousand in 20 to 24 year olds; for alcohol or drug dependence 167 and 189 per thousand in 16 to 19 and 20 to 24 year respectively; and for psychoses, 2 and 5 per thousand in 16 to 19 and 20 to 24 year respectively (Meltzer *et al.*, 1995). While severe mental illness rates such as schizophrenia and other psychotic disorders are low amongst young people, suicide has been identified as a major cause of mortality in this age group. Suicide rates in young men have shown an overall upward trend since the early 1970s and deliberate self-harm is increasing amongst young women (Kerfoot, 2000). In 1997, the number of suicides in the UK was 493 amongst 15 to 24 year olds, breaking down into 411 young men and 82 young women (WHO, 1999a).

Recent national surveys which examine indicators of potential psychological illness rather than rates of diagnosed mental disorders also suggest similar patterns of prevalence rates (McMunn *et al.*, 1998; Boreham and Tait, 1999). The Health of Young People in 1995 to 1997 revealed that the proportion of young people scoring highly on the GHQ12 (a scale designed to detect possible mental illness) rose from 10% amongst 13 to 15 year olds; to 15% amongst 16 to 19 year olds; and to 19% amongst 20 to 24 year olds (McMunn *et al.*, 1998). The proportion scoring highly on the GHQ12 was also noted to be approximately twice as high for young women as compared to young men across all age ranges. However, using the Strengths and Difficulties Questionnaire (a scale designed to detect behavioural, emotional or relationship difficulties), whilst more males aged 4-16 scored highly on measures of hyperactivity (17% compared to 12% of females), conduct problems (12% compared to 8%) and peer problems such as (16% compared to 11%), more young women scored highly on emotional symptoms (13% compared to 11% of males). Differences according to gender have also been noted by Boreham and Tait (1999), as part of the Health Survey for England 1998 (Erens and Primatesta, 1999). For example, more young men were classed as having a 'severe lack' of social support (19% compared to 12% of young women).

These figures reveal that the majority of mental health problems amongst young people are emotional or conduct disorders; and that there are differences according to age and gender. Hughes *et al.* (1994) found that by 'adolescence' problems such as substance abuse, psychotic disorders, eating disorders and suicidal behaviours begin to replace those which are predominantly developmental in origin. Rutter and Smith (1995), in an international comparative study, examined historical trends in psychosocial disorders amongst young people according to a number of factors, including gender, and found that rates for crime, suicide, and substance abuse were higher for young men, whilst rates for depression, eating disorders, and suicidal behaviours (rather than completed suicide) were higher for young women. However, there was also a trend towards converging rates for crime, substance abuse, depression, and suicidal behaviours. These differential patterns suggest that interventions to promote mental health may need to be tailored according to gender and age.

Differential patterns have also been described according to groups of young people who could be considered to be at risk for social exclusion. Meltzer *et al.* (2000) found that children and young people (aged 5 to 15) from families in social class V were three times more likely to have a mental health problem than those in class 1 (14% compared to 5%) and twice as likely as those in class II (14% compared to 7%). Similarly McMunn *et al.* (1998) found that the number of children and young people aged four to 16 showing signs of mental health problems increased from social class 1 to V. Calderwood and Tait (2001), as part of the Health Survey for England in 1999 which had a particular focus on the health of minority ethnic groups (Erens *et al.*, 2001), found that Bangladeshis, Pakistanis and Black Caribbean women and Indian women (aged 16 and above) were more likely to have a high GHQ12 (4 or more indicative of a possible psychiatric disorder) score than the general population. In addition, men and women of South Asian, Chinese and Black Caribbean origin were more likely than the general population to have a severe lack of social support across all ages groups including between the ages of 16 to 24. In a longitudinal study of the antecedents and sequelae of homelessness among young people aged 16 to 21, Craig *et al.* (1996), found that two-thirds of their homeless sample were suffering from a psychiatric disorder (compared to 25% in the control sample) and a third reported at least one suicide attempt (compared to 9% in the control sample).

This picture of prevalence rates and the impact of mental health on physical health underscores the importance of early intervention, prevention of mental health problems, and promotion of positive mental health amongst young people. It also begins to highlight potential risk factors which are associated with poor mental health amongst young people. These are examined in more detail in the next section.

1.3 What are the determinants of mental health amongst young people?

Whilst the exact causes of mental-ill health in individual cases are unknown, a number of risk and protective factors in children and young people have been identified which may influence the development of a mental health problem. Some of the risk factors are interrelated and reinforcing and it may be that the more factors a young person has the greater the probability of developing a problem. Based on the work of Rutter (e.g. Rutter and Smith, 1995) and others (e.g. Luthar and Zigler, 1991), the report of the Mental Health Foundation's inquiry into children's and young people's mental health classified risk and protective factors in terms of those within the individual, family and wider community (Mental Health Foundation, 1999:8).

Individual risk factors are proposed as including learning disability, physical illness, academic failure, low self-esteem; specific developmental delay; and communication problems. For example, in a prospective longitudinal study of the role of self-esteem in eating disorders, Button *et al.* (1996) found that low self-esteem amongst girls aged 11 to 12 predicted eating disorders and other psychological problems at ages 15 to 16; and in a meta-analysis of over 60 studies, Bennett (1994) found that children and adolescents with a medical condition were at an elevated risk of depression. Proposed individual protective factors include being female; good communication skills; being a planner;

believing in control; humour; religious faith; capacity to reflect; and higher intelligence (Mental Health Foundation, 1999).

Family risk factors include overt parental conflict; family breakdown; inconsistent or unclear discipline; hostile and rejecting relationships; failure to adapt to a child's changing needs; physical, sexual and/or emotional abuse, parental psychiatric disorder; criminality or substance addiction; death and loss (including loss of friendship). For example, in a meta-analysis of studies examining the relationship between parental divorce and children and young people's mental health, Amato and Keith (1991) concluded that there is evidence for a negative effect of family conflict rather than divorce per se. Protective factors proposed in the family include at least one good-parent child-relationship; affection; supervision, authoritative discipline; support for education; supportive marriage/absence of severe discord (Mental Health Foundation, 1999).

Risk factors proposed in the community include socio-economic disadvantage, homelessness; disaster; discrimination; other significant life events such as unemployment. In this latter category there has been a significant amount of research on the links between unemployment and mental health. In a review of research, Hammarstrom (1994) concluded the unemployed have a higher mortality rate, are more likely to experience minor psychological disturbances, and engage in higher levels of drug and alcohol consumption. Proposed protective factors have included factors such as wider support networks, access to sport and leisure amenities; high standard of living; schools with strong academic and non-academic opportunities; and good housing (Mental Health Foundation, 1999).

These findings have much intuitive appeal in terms of translating them into interventions to prevent mental health problems which either remove or decrease risk factors or foster protective factors. However, the evidence of risk and protective factors is produced mainly by observational studies which examine whether an association between the risk factor and a positive or negative mental health outcome exists. Although some studies also go on to consider and test whether this association reflects a causal link and how, there are clearly difficult problems in terms of establishing cause and effect in these studies and in understanding the causal pathways. As Harrington and Clarke (1998) point out, there is not yet a good understanding of the mechanisms that underlie the observed associations. They give the example of an observed association between deliberate self-harm and poverty and educational disadvantage, suggesting that we need to know much more about the association in order to develop potentially effective ways to intervene - for example, whether the effects of poverty are direct or indirect, or whether the observed association is a result of a third factor such as inequalities in standards of living.

Because of the difficulties outlined above, there are often conflicting and/or disparate hypotheses and findings in the literature about how risk and protective factors operate, making it difficult to use this evidence for the development of interventions. Systematic reviews and meta-analyses of observational studies can be helpful in making sense out of some of these conflicts. A good example of this is parental divorce and the meta-analysis referred to earlier. Whilst there are many alternative theories of how parental divorce affects young people's

mental health in a negative way, such as through parental absence or economic disadvantage, Amato and Keith (1991) conclude that the evidence supports a family conflict perspective. This suggests that *potentially* effective interventions to reduce the negative impact of divorce would be those which aim to reduce family conflict. It is important to note, however, that such interventions would then need to be rigorously evaluated to determine whether they were *actually* effective.

This section has highlighted the wide range of risk and protective factors which have been proposed from the statistical associations noted in observational data. Knowledge of these factors can be useful in helping to plan potentially effective mental health promotion. The next section examines a range of theoretical models of mental health promotion which can complement the above research in developing effective mental health promotion.

1.4 Models of mental health promotion

There are several models of mental health promotion within the literature. Common to all of these is the focus on the need to broaden action beyond the individual, to the community level (e.g. facilitating supportive networks) and the wider society (e.g. housing policy). Consistent with the shift from mental health being equated with mental illness, current frameworks for mental health promotion see the prevention of mental illness as only one part of its remit. Enhancing a sense of well-being or promoting 'positive mental health' is also seen as a key goal (DoH, 2001). These goals are part of what has been termed by some as 'public mental health' (e.g. Friedli, 1999) which directs focus onto the mental health needs of the whole population rather than individuals. In recognition of the importance of the physical and social environment to the mental health of individuals, the concept of the 'public mental health' also extends to enhancing the 'mental health' of organisations and communities with a view to fostering a 'mentally healthy society'.

Tilford *et al.* (1997) argue that there are three key factors which may mediate between mental health and the causes of mental-ill health: coping skills, self-esteem and social support. Hodgson *et al.* (1996) describe a similar model of mental health which conceptualises the individual as continually adapting to threatening or stressful life events. In this model, adaptation can be facilitated or inhibited at an individual level through, for example, self-esteem or coping skills, but also at a social level through families, communities and the environment. They thus define mental health promotion as:

“the enhancement of the capacity of individuals, families, groups or communities to strengthen or support positive emotional, cognitive and related experiences” (Hodgson *et al.*, 1996: 56)

A report by the Health Education Authority (HEA) sets out a framework for mental health promotion and outlines 'promoting' and 'demoting' factors (HEA, 1997). These factors are classified in terms of 'emotional resilience'; 'citizenship'; and 'healthy structures'. 'Emotional resilience' is defined as relating to "how people feel about themselves, the interpretation of events and people's ability to cope with stressful or adverse circumstances" and includes "self-esteem, coping and life skills and opportunities to make choices and exercise control over one's life" (p8). 'Citizenship' is defined as "a positive sense of

belonging and participating in society' and includes "social support, strong social networks, a sense of integration and social inclusion" (p7). 'Healthy structures', including social, economic and cultural variables are defined as providing "a basic framework for developing and maintaining positive mental health" (p7). 'Promoting' and 'demoting' factors for positive mental health may arise and interact from each of these three areas. According to this framework, mental health promotion should work at three levels to reduce demoting factors and increase promoting factors by strengthening individuals (e.g. fostering coping and life skills); strengthening communities (e.g. developing support networks, improving neighbourhood environments, anti-bullying strategies); and reducing structural barriers to mental health (e.g. reducing discrimination; facilitating access to meaningful employment).

Three levels of action are also proposed by McDonald and O'Hara (1996): the micro level; the meso level (which refers to groupings such as the family and peer groups); and the macro level (which refers to wider systems which can impact on people's lives such as governments, formal religions and large and influential companies). Action at these levels should work to reduce what they refer to as 'elements' that undermine mental health (e.g. social alienation, stress; emotional abuse) and those which promote it (e.g. environmental quality, self-esteem, social participation).

Looking beyond individual interventions to developing more embracing structural initiatives may be aided by the application of the concept of social capital within health promotion. Developed by Putnam (1993) social capital is a model which represents prosperity engineered through the development of healthy neighbourhoods and social networks. The four main tenets are: community networks; civic engagement/participation in the community networks; local identity, solidarity, and equality within the community; and trust developed through norms of reciprocity. Trust and altruism seem to be the most important concepts, as people perform activities which help others with no immediate reward, but in the belief that in the longer term they or their families will benefit. It is only recently that suggestions have been made that the model could be developed to bring about improvements in health. Campbell *et al.* (1999) studied the extent to which the concept can be applied to the design of community based health promotion interventions. Interviews and focus groups were conducted in two communities in a socio-economically disadvantaged town in the UK, one characterised by relatively high levels of health, the other with poor health status. The concepts of trust and perceived citizen power were prominent in the former, whilst concepts of local identity and local community facilities featured significantly in the latter. It is suggested that some of the concepts are more relevant to health promotion than others and that more work needs to be done to investigate the appropriateness of the model to the goal of improving physical as well as mental health.

There is a debate about how health promotion can be distinguished from other aspects of healthcare. A distinction is often made between primary prevention, treatment and other forms of prevention (secondary and tertiary). This distinction has been used in recent systematic reviews of mental health promotion (e.g. Nicholas and Broadstock, 1999). Primary prevention within the context of mental health in the current review is defined as "any initiative directed at young people who do not have an established diagnosis of a mental health condition" (Nicholas and Broadstock, 1999:2). Primary prevention can be

further divided into 'universal' interventions which target all individuals, 'selective' interventions which target those at increased risk and 'indicated' interventions targeted at those showing early signs of a mental illness (Mrazek and Haggerty, 1994).

In summary, models of mental health promotion highlight the range of possible interventions which could promote mental health and provide a framework for developing them. The promotion of young people's mental health should therefore be the concern of a range of agencies (e.g. health authorities, local authorities, local education authorities) and can be undertaken by a range of individuals in a number of different settings such as doctors, nurses, teachers, parents and peers, as well as health promotion practitioners.

1.5 Current policy framework for promoting young people's mental health

The promotion of good mental health and the prevention of mental illness has been given a high priority within the health policy agenda in the UK. Mental health is one of the five priorities for action set out in 'Our Healthier Nation' (DoH, 1998a) which discusses the aim of reducing the risk from chronic and preventable disease and the promotion of positive health across all population groups, including young people. 'Saving Lives', which came out a year later (DoH, 1999c), set specific targets for these areas. For mental health, the target is to reduce the death rate from suicide and undetermined injury by at least a fifth by 2010 (DoH, 1999c). As part of a strategy for reaching this goal, the Department of Health (England) has published a National Service Framework for Mental Health (NSFMH) (DoH, 1999a). This sets seven national standards. Most emphasise the importance of improving service provision and treatment for those with mental health problems. However, standard one is for health and social services (and their partner organisations such as schools and local authorities) to "promote mental health for all, working with individuals and communities; combat discrimination against individuals and groups with mental health problems and promote their social inclusion" (DoH, 1999a:14).

This means that the promotion of mental health is no longer an optional remit for health and social services and performance targets for local services have been set (DoH, 2001). By March 2002, local services need to have developed and agreed an evidence-based mental health promotion strategy based on a local needs assessment. The NSFMH and the subsequent guide to implementing it (DoH, 2001) state that this should include an outline of the action to be taken to promote mental health in specific settings; a consideration of what will be done across whole populations, for individuals at risk (e.g. the unemployed, young single parents, people experiencing divorce or stress at work) and vulnerable groups (e.g. victims of child abuse, people who sleep rough or are in prison, black and minority ethnic groups); and plans for reducing discrimination and promoting social inclusion of those with mental health problems. It is important to highlight that the NSFMH is intended to cover adults of working age only. A separate programme of work on developing child and adolescent services for the treatment of mental health problems is being undertaken. However, in relation to promoting mental health, the NSFMH does encompass the needs of young people, particularly through its emphasis on action in settings such as schools and local communities and on vulnerable groups or those who are most at risk.

Many parts of this policy initiative have been informed by and reinforce the principles embodied in wider government health policies. These include the importance of meaningful public engagement in the planning and delivery of public services (e.g. DoH, 1999b); the commitment to basing interventions on evidence of effectiveness and appropriateness in order to deliver the highest quality of care (e.g. DoH, 1998b); and a commitment to tackling, in a 'joined up' way, the material and social conditions leading to inequalities in health and other areas (e.g. Acheson, 1998; Social Exclusion Unit, 2001). In relation to the first two of these issues, local strategies for mental health promotion must be developed in consultation with those who may receive or use such services and they must be evidence based. In relation to the latter, the NSFMH has a clear remit for health authorities to work within the broader government agenda of tackling social exclusion, particularly in relation to standard one. This is in recognition that mental health problems can arise from the adverse factors associated with social exclusion and that they can be a cause of social exclusion. The recommendations of the Acheson report (Acheson, 1998), which has given much of the impetus to the social exclusion agenda, highlights the extent of action needed to tackle health inequalities across governmental sectors. This is to be achieved through building healthy communities, provision of better housing, promotion of better educational attainment, improvement in employment opportunities, reduction of crime, and better public infrastructures (e.g. improved and affordable transport). For achieving standard one, this will mean that health authorities will have to forge new ways of working with partner organisations as the promotion of mental health for all goes far beyond the responsibility of one agency (DoH, 1999a).

A vision for what local services might do to promote mental health is outlined in the NSFMH. It gives examples of effective interventions (some of which are based on systematic reviews and randomised controlled trials) and suggests service models with examples of good practice. Concerning whole populations, it suggests that action should be focused through initiatives such as healthy schools, workplaces and neighbourhoods. Examples of good practice relevant to young people are an adult mentoring programme for school pupils; and supporting young people at risk of social exclusion through outreach projects offering psychological treatment. For individuals at risk, those responsible for health and social care need to encourage them to make contact with formal services or other sources of help such as self-help groups. Although no examples of good practice specifically focused on young people are given, home visiting schemes for first time mothers and a befriending scheme may be relevant. For vulnerable individuals, health and social care communities are encouraged to identify particular groups and promote their mental health through other programmes which aim to promote social inclusion. Examples of good practice are a project aiming to meet the needs of Asian women; an integrated approach to mental health and homelessness to increase their access to services; and promoting mental health in prisons through anti-bullying strategies, physical exercise and contact with friends and family. Again these examples are not specifically focused on young people but could be relevant. For combatting discrimination and social exclusion, local services need to promote social inclusion in accordance with the approach set out in 'Saving Lives' such as improving education to increase opportunities for all, reducing unemployment and tackling discrimination.

These examples highlight how those involved in the implementation of the NSFMMH can link in with, and be supported by, a broad range of other government policy initiatives. Indeed, the implementation guide specifically advises local teams to undertake a mapping of other initiatives on-going in their area which aim to promote mental health or aim to tackle those factors which can give rise to mental health problems (DoH, 2001). Initiatives which are directly relevant to promoting young people's mental health include the Healthy Schools Programme, run jointly by the Department of Health and the Department for Education and Skills (DfES), and the new guidance for the Personal, Social and Health Education (PSHE) curriculum from the DfES. The National Healthy School Standard component of the Healthy Schools Programme for example includes a standard for a whole school approach to promoting the emotional health and well-being of staff and pupils. The new guidance for PSHE aims to give it greater status within the curriculum so that it can achieve its aim of helping young people lead confident, healthy and responsible lives as individuals and members of society.

Other initiatives which are not explicitly framed in terms of promoting mental health are those which focus on tackling social exclusion amongst young people. These include those which aim to:

- raise academic achievement for all young people by reducing the barriers to learning, in particular for socially excluded young people or those at risk of social exclusion (e.g. Education Action Zones; Excellence in Cities; and Learning Mentors Scheme set up by the Department for Education and Skills (DfES)).
- support young people in making the transition from compulsory schooling to further and higher education or work (e.g. Education Maintenance Allowance; Connexions Service; New Deal for Young People (DfES)).
- increase facilities and opportunities to take part in out of school activities such as sports and creative practices through regeneration of community resources (e.g. Creative Partnerships and A Space for Sports and Arts from the Department of Culture, Media and Sport (DCMS); and New Deal for Communities from the Department of Transport, Local Government and the Regions (DTLR)).
- support young people leaving care and those at risk of becoming homeless (e.g. Quality Protects from the DoH and the Rough Sleepers Initiative from the Social Exclusion Unit).
- co-ordinate policy, services and funding to reduce the risk of social exclusion amongst children and young people aged 0 to 19 (e.g. The Children's Fund and the Children and Young People's Unit set up within the DfES by the Cabinet Office).

Such a broad approach to promoting mental health is echoed in a recent report by the Mental Health Foundation which makes specific policy recommendations for young people (MHF, 1999). The Foundation recommends a mental health promotion strategy which emphasises the need for universal health promotion linked to targeted services for those at risk, alongside policies to reduce social

inequalities. 'Universal' services would consist of several strands including: support for parents (e.g. parenting support and education programmes, particularly at key transitions in a young person's life); promoting mental health at school (e.g. appointing a mental health co-ordinator; peer support schemes in every school; promoting PHSE; supporting staff; promotion of home-school links); and providing more out of school activities which promote emotional and social skills (e.g. arts and sports).

Putting mental health promotion policy into practice means implementing effective interventions for, and with, young people. A key part of this process involves examining and synthesising the evidence base. This means finding and synthesising primary and secondary research evidence on barriers to, and facilitators of, mental health, including what works to promote mental health or prevent mental ill-health. The next section of this report describes our approach to synthesising this evidence-base.

1.6 Approach taken in this review

This review has a number of distinctive features which make it different, not only to ordinary (non-systematic) reviews of the literature, but also to traditional systematic reviews of effectiveness. This section lays out the general principles adopted in the review in terms of: a framework for conceptualising barriers to, and facilitators of, good mental health; the rationale for the methods used in the review (including our 'novel' attempt to integrate the findings from experimental research and observational and 'qualitative' research); the two-stage process by which the review was carried out (descriptive mapping followed by in-depth review); and defining a sub-set of studies for in-depth review.

Barriers and facilitators: a conceptual framework

For the purposes of this review, we are using the terms 'barriers' and 'facilitators' to refer to factors which either promote or hinder good mental health amongst young people. Research findings about the barriers to, and facilitators of, good mental health amongst young people can help in the development of effective intervention strategies. Interventions can aim to modify or remove barriers and use or build upon existing facilitators. Building on the commonalities in models of health promotion and frameworks for classifying determinants of health and mental health identified above, we have categorised barriers and facilitators according to whether they reside at three levels: the *individual* (e.g. coping and life skills); in relationships with other people within the different *communities* which individuals may belong to (e.g. social support networks, family relationships, schools); and *society* (e.g. discrimination, social class). Such a framework also fits in with the strategies outlined for improving mental health outlined in 'Saving Lives' (DoH, 1999), which emphasises what individuals can do, what communities can do and what the governments can do.

These three levels of the individual, community and society, also fit in with various definitions and models of health promotion which incorporate the determinants of health in general and how it may be promoted (e.g. Green and Kreuter, 1991; Hawe *et al.*, 1990; Tones and Tilford, 1994). For example, Tones and Tilford (1994) emphasise environmental influences, (e.g. cultural, socio-economic and physical), individual choice and lifestyle and the provision of

health services (p 6-7). Social networks and support at the community level feature as important influences in a model of the dynamics of self-empowerment also outlined in Tones and Tilford (1994:26). Similarly Hawe *et al.* (1990), in their framework for assessing the factors associated with health problems or behaviour to aid in planning health promotion programmes, emphasise factors which can be classified according to whether they reside at the individual (e.g. attitudes, knowledge), community (e.g. role models, social support) or society level (e.g. policies on health and equity; health services). As Lister-Sharp *et al.* (1999) note, an increased understanding of the determinants of health and health behaviours has led to the recognition that health promotion needs to develop multi-faceted approaches which tackle barriers and foster facilitators at all levels.

We have made further distinctions at each of these levels to capture different aspects of the three broad groups of factors. *Individual* barriers and facilitators have been broken down into 'psychological factors' which cover those arising out of the cognitive and emotional states and the personality attributes of an individual (e.g. knowledge, attitudes, coping and life skills); 'physical factors' which cover the physical health status or attributes of an individual (e.g. disability, physical fitness); and 'life event factors' which may place extreme demands on the individual (e.g. bereavement, moving schools). *Community* barriers and facilitators refer to the social networks in which the individual lives, including within schools. These have been broken down into 'family factors' (e.g. parental conflict, parental love and affection) which cover those arising out of parental and sibling relationships and 'interpersonal factors' which cover those arising from other social relationships, such as with teachers or peers (e.g. social support from friends, role modelling). *Society* barriers and facilitators refer to the wider social world in which individuals and communities reside. These have been broken down into 'socio-cultural factors' referring to social and cultural identities (e.g. experiencing or overcoming discrimination on the grounds of sex or ethnicity) and 'structural factors' which cover those arising from the environmental, political, financial and legal context of individuals and communities (e.g. material resources, employment).

The inter-relationship between the three levels clearly needs to be acknowledged. For example, barriers and facilitators arising out of individual psychological factors may be dependent on an individual's interpersonal relationships or status in society. Similarly, social support may be fostered by changes to structural factors at the society level, but also by strengthening individual social skills at the individual level.

Review methods: being systematic

A systematic review is *a piece of research* which uses certain methods in order to produce valid and reliable results. The tasks involved in systematic reviewing, from applying inclusion criteria and extracting data to critical appraisal, are all liable to bias. The main ways in which bias can be minimised involve: trying to identify as much as possible of all the relevant research which exists; using standardised coding procedures, ideally applied independently by more than one reviewer; and assessing the methodological quality of the studies such that conclusions and recommendations are based on the most rigorous studies (Mulrow and Oxman, 1997; NHS Centre for Reviews and Dissemination, 1996). Explicit reporting of how the review was conducted allows others to assess

potential sources of bias in the review and thus the validity of its findings (Peersman *et al.*, 2001). This review adopts such principles. For example, all studies at each stage of the review were coded using standardised keywording and data extraction forms. The data extraction and quality assessment of the majority of primary studies included in the in-depth review were done by two reviewers independently. Results were compared and disagreements resolved through discussion. Such discussion is important not only for resolving oversights, but also for clarifying important conceptual definitions.

As noted above, a systematic review aims to synthesise only those studies which are judged to have been carried out in such a way that their conclusions are reliable. There is currently much debate about the use of randomised controlled trials (RCTs) to evaluate the effectiveness of health promotion and other social or 'behavioural' interventions (see e.g. Macdonald, 1997; Oakley, 1998; Oakley and Fullerton, 1994; Stephenson and Imrie 1998). This debate is part of a wider discussion about what constitutes 'evidence' in relation to both social and healthcare interventions. However, it is generally agreed that well-designed prospective experimental studies, which include RCTs, provide a range of good quality data which increase the validity of inferences about which 'treatments' or interventions work (Kleijnen *et al.*, 1997; Sibbald and Roland, 1998). Furthermore, including an integral process evaluation in trials can provide information on how and why interventions work (or not). This review is conducted on the basis of these principles, but also recognises the need to develop an understanding of the role of observational research and process evaluations in evidence-based health promotion. The following section describes how these other types of research have been included in this review.

Review methods: integrating different study types

This review differs from traditional systematic reviews of effectiveness in two main ways. Firstly, the review question was concerned with identifying barriers to, and facilitators of, good mental health rather than the question of 'which interventions are effective?'. We hypothesised that barriers and facilitators could be identified in the following ways: through examination of interventions shown by research to be effective in promoting young people's mental health (i.e. which barriers did they aim to reduce/remove? which facilitators did they build upon/show synergy with?); and through examination of research which did not aim to evaluate specific interventions, but rather to describe which factors influence young people's mental health in a positive or negative way. We identified three different types of particular interest within this latter category: studies which examine what factors are *associated* with mental health (e.g. those which examine a range of different factors to see which ones relate to or are correlated with mental health); studies which attempt to *explain* how factors relate to mental health (e.g. those which examine which factors may directly impact upon mental health and which factors play a mediating role); and those which examine *young people's views* about what affects their own mental health.

This links into the second way this review differs from traditional effectiveness reviews - we needed to include a range of study types. Good quality research studies evaluating interventions were used to identify effective and ineffective interventions and the barriers and facilitators which they aimed to remove/build upon (e.g. well conducted and reported randomised or non-randomised

controlled trials), but other types of studies (including study types which generate 'qualitative' data) were also used to identify the barriers to, and facilitators of, good mental health. The former type of research provides guidance primarily on 'what works?', whilst the latter yields to recommendations for future research and development in terms of developing *potentially* effective interventions which then need to be rigorously evaluated. In addition, we anticipated that by integrating different study types, we would be able to explore issues of how/why interventions might be effective by highlighting matches and mismatches between what kinds of interventions get evaluated and the kinds of factors which are thought to influence mental health identified by more 'descriptive' research.

Thus this review includes two main types of research evidence: intervention research evaluating the effectiveness of interventions to promote mental health/prevent mental illness; and 'non-intervention research' which describes factors influencing young people's mental health in negative or positive ways without introducing and evaluating an intervention. Few systematic reviews have attempted to synthesise evidence from both intervention and non-intervention research: most have been restricted to experimental outcome evaluations. Thus integrating the findings from both presents a challenge (Egger *et al.*, 1998; Light and Pillemer, 1984). For example, whilst there is considerable consensus about the quality criteria intervention studies need to meet for them to produce reliable answers to questions of effectiveness, there is little consensus about how to judge the quality of non-intervention research (including 'qualitative research') or which questions it can reliably answer (Oakley, 2000).

While all the methods used in the review follow the methodological principles for carrying out systematic reviews outlined above, the review also uses specific methods for integrating different study designs which have previously not been documented. It builds on recent work by Oakley (2000) and Rogers *et al.* (1997) in developing a set of possible quality criteria for judging the soundness of the methods used in 'qualitative' studies. It also carries further attempts to integrate experimental studies with observational and qualitative studies in systematic reviews of effectiveness carried out at the EPPI-Centre. This work includes two systematic reviews which aimed to integrate studies evaluating processes as well as outcome evaluations in the area of smoking cessation for pregnant women (Oliver *et al.*, 1999a, see also Oliver, 2001) and peer-delivered health promotion for young people (Harden *et al.*, 1999b; see also Harden *et al.*, 1999c).

Stages of the review

This review was carried out in two stages: a descriptive mapping and quality screening exercise of all studies meeting the scope of the review and an in-depth review of the quality and findings of a sub-set of these studies. The rationale for this is outlined below.

Previous systematic reviews within health promotion carried out at the EPPI-Centre and elsewhere have uncovered large amounts of research to be considered for inclusion (e.g. Peersman *et al.*, 1998; Tilford *et al.*, 1997). This is partly as a result of improvements in searching techniques (e.g. Harden *et al.*, 1999a). However, another important reason is that the questions of interest to

health promotion tend to be very broad and encompass a wide-range of possible interventions (e.g. what is the effectiveness of sexual health promotion?); and/or health topics (e.g. what is the effectiveness of peer-delivered health promotion?); and/or outcomes (e.g. what are their effects on knowledge, attitudes, behaviour, environmental changes?). Many systematic reviews in other areas of healthcare address much narrower questions, for example, focusing on the effects of one intervention on one particular outcome. Whilst this ensures that the reviewer's tasks are manageable within given time and resource constraints, it also means that it is much more difficult to piece together the results of narrow reviews to illuminate broader questions (Oliver *et al.*, 1999b). There is therefore a dilemma in balancing the need for reviews of health promotion to address broad questions against the need to ensure the workload is manageable.

In their work on methodological issues in systematic reviews of effectiveness within health promotion, Peersman *et al.* (1999a) propose a solution to this dilemma in the form of a two-stage commissioning process. Stage one involves identifying and describing relevant studies so as to produce a map of the kinds of research that have been done. Stage two is a detailed review of studies. This ideally follows discussion between researchers, commissioners and potential users of the review to determine the criteria for choosing which studies to include.

Defining a sub-set of studies for in-depth review

Following the two-stage process outlined above, we presented the steering group with a variety of options for choosing a sub-set of studies for in-depth review and asked for their comments. This section outlines the options chosen and their rationale. A more detailed account of the specific criteria used to select a sub-set of studies is given in chapter 4. It is important to note that, although we had to restrict the focus of our in-depth review to particular areas of mental health and to particular groups of studies, this does not mean that other areas of mental health or other groups of studies were ignored. Furthermore, because we have systematically searched and catalogued this research, we have a bibliography which is available for examination in-depth by others in the future.

(i) Identifying a priority area of mental health

Mental health is an extremely broad area, encompassing topics as diverse as violence and crime; eating disorders; and depression. We therefore began the review with a very broad definition of mental health and aimed to map descriptively and quality screen the literature we found through our systematic searching to ascertain which areas of mental health have been researched and in what ways. Several options for the in-depth review were presented to the EPPI-Centre steering group which focused on different ranges of mental health topics and/or groups of young people. The prevention of suicide, associated depression and the promotion of positive self-esteem were subsequently chosen as the focus for the in-depth review for several reasons. The mapping exercise identified these three inter-related areas as those in which there has been a significant amount of research activity. These areas are high in the current UK health promotion policy agenda. Suicide prevention is a key priority area for mental health promotion in the UK at the present time. Numerous

prospective cohort and retrospective case control studies have shown a link between suicide/self-harm and depression (e.g. Kerfoot *et al.*, 1996). The relatively high prevalence of depression and depressive symptoms amongst both the general population and young people in the UK has been well documented (e.g. Harrington and Clark, 1998). A number of factors may underlie the existence of depression, including low self-esteem and coping.

(ii) Prioritising young people's views alongside high quality experimental studies of effectiveness

As indicated above, the review aimed to include a wide range of study types. Consistent with previous systematic reviews of effectiveness within health promotion and other areas of healthcare, we proposed to review in-depth only those intervention studies which were capable of potentially providing reliable conclusions about effectiveness. For non-intervention research we proposed to review in-depth only studies which directly examined what young people themselves perceived to be the barriers to, and facilitators of, their mental health. This type of research traditionally makes a contribution to 'needs assessment'. 'Need', defined by Hawe *et al.* (1990:17), is "those states, conditions or factors . . . which, if absent prevent people from achieving the optimum of physical, mental and social well-being". In assessing need, priority areas are determined and an analysis of the health problem is undertaken (Hawe *et al.*, 1990). Although needs can be assessed through a variety of different ways, including seeking expert opinion ('normative' need); reviewing epidemiological data and/or use of services ('expressed' need and 'comparative' need), increasing importance has been attached to assessing 'felt' need (based on what people themselves say). A key factor in this is the current emphasis within health promotion on the importance of empowerment and working in partnership with the intended recipients and users of health promotion, whether they are individuals, communities or organisations (Ewles and Simnett, 1995; Green and Kreuter, 1991; Hawe *et al.*, 1990; Tannahill, 1990; WHO, 1999b).

Ewles and Simnett (1995:79) identify several wider trends which emphasise the need to put the views of the 'users' or 'recipients' of health promotion at the centre of health promotion planning and development. These include the growth of the consumer movement since the 1960s; the movement towards client-centred approaches; and the increasing use of professional and lay partnerships. In the context of children and young people, giving a voice to these traditionally silenced groups in matters which affect their lives is enshrined in the UN convention on the Rights of the Child (1990) (Alderson, 2000). Hennessy (1999:153) summarises several other reasons why the views of children and young people are important: they have a great deal of valuable information about themselves to contribute; what they say can help in understanding the effects of interventions which aim to improve some aspect of their lives; giving them the opportunity to take part in decision-making can allow them a sense of ownership over their lives; and consulting and taking their views into account lets them know that they are valued and respected.

These principles are echoed in recommendations made for the planning and development of health promotion interventions which are most likely to be effective and relevant for young people (Brannen *et al.*, 1994; Moore and Kindness, 1998; Peersman, 1996; Schucksmith and Hendry, 1998). In this

context, not only is listening to young people an ethical imperative and a rights issue, it is only by taking into account young people's own views about their health needs and the factors which influence their health that the most effective and appropriate strategies for promoting health will be developed.

Synthesising what is known about young people's own beliefs, ideas and experiences on how their mental well-being can be threatened or maintained, complements (and may sometimes contradict) what is known from mainly 'expert-driven' research about mental health barriers and facilitators.

(iii) Avoiding duplication of effort

A number of previous systematic reviews which cover young people have been carried out on the effectiveness of interventions to promote mental health. In the interests of avoiding duplication of effort and managing resources effectively, it seemed sensible to only review in detail outcome evaluations which had not already been included in high quality previous systematic reviews.

2. MAPPING EXERCISE: METHODS

Outline of Chapter

This chapter describes the methods used in the first stage of the review: the mapping and quality screening of the mental health promotion literature. This was conducted in three stages:

- (i) developing relevant inclusion and exclusion criteria;*
- (ii) identification of relevant studies and;*
- (iii) classification of these studies.*

This chapter of the report describes these stages in detail. The criteria developed meant that the research described in the rest of the report covers three categories of studies published in English:

- ***evaluations of health promotion interventions** aimed primarily at promoting positive mental health or preventing mental ill-health among young people (intervention studies);*
- ***other types of studies** (cohort studies, case control studies and surveys) examining the relationship between young people's mental health and various aspects of their lives at the individual, community and societal level and/or reporting on young people's views directly (non-intervention studies);*
- *and **systematic reviews** of primary studies.*

The evaluation studies include both outcome and process evaluations. While outcome evaluations carried out in any country and systematic reviews synthesising such research are included in the report, we restricted other types of study to those reporting UK research. Essentially these three types of research were considered to be useful for informing the development, implementation and evaluation of mental health promotion.

*This chapter is relevant to all audiences as it describes in detail the 'basic' scope of the review. **But this chapter will be of particular interest to:***

- ***any readers** who want to evaluate in detail how this stage of the review was conducted in order to assess the reliability and validity of the review's findings.*
- ***researchers or others** interested in carrying out systematic reviews to understand how a mapping and initial quality screening exercise can be conducted. **This chapter may be skipped** by readers who are primarily interested in the findings of the review.*

2.1 Inclusion and exclusion criteria

In order to be considered relevant to this mapping a report had either to: i) report the results of a *systematic review* within the scope of mental health promotion for young people; or ii) evaluate a health promotion intervention aimed at promoting mental health or preventing mental ill-health (*intervention studies*); or iii) identify how, or the extent to which, various aspects of young people's lives were associated with or predicted their mental health or ill-health, and/or report directly on their views (*non-intervention studies*).

It was clear from the early stages of literature searching that the volume of potentially relevant studies would be substantial. A decision was therefore taken on criteria which would reduce this to a quantity which would be manageable within the time we had for the review, while still addressing the purposes for which it was commissioned.

Reports needed to pass four rounds of exclusion criteria to be included in the descriptive mapping.

Round one: exclusion on the grounds of scope

There were three 'scope' criteria. Studies were excluded if:

(i) The study's focus, or main focus, was NOT mental health. Studies were excluded when they had several outcome measures of interest and the majority were unrelated to mental health. Several studies of interventions aimed mainly at improving educational achievement fell into this category.

(ii) The study did NOT focus on young people. Studies were excluded when they focused on the general population. They were also excluded when the mean age of participants was less than 11 or more than 21. An exception to this was made for systematic reviews which covered older age groups but included a clear section on young people.

(iii) The study was NOT about the prevention of mental illness or promotion of mental health or about the barriers and facilitators of good mental health. Intervention studies were excluded if they were aimed at populations which had already experienced serious mental ill-health. These problems were defined for the purposes of the study as a clinical diagnosis of mental illness following referral, or self-harm, suicide or breakdown, or being attendant/resident at the study start in a facility that specialises in work with people labeled as mentally ill. Non-intervention studies were excluded if they focused on these populations without examining the factors that might have led to or helped avoid serious mental ill-health in the first place.

Round two: exclusion on the grounds of study type

There were ten 'study type' exclusion criteria. Studies were excluded if they were any of the following: (i) editorials, commentaries or book reviews; (ii) policy documents; (iii) surveys solely reporting the prevalence or incidence of mental illness; (iv) non-systematic reviews; (v) non evaluated interventions; (vi) surveys examining a range of health-related behaviours (only some of which are about

mental health); (vii) resources; (viii) bibliographies; (ix) theoretical or methodological studies only; or (x) single-case studies.

Round 3: exclusion on the grounds of location of study

There were two criteria for this round. Studies were excluded if they described:

- (i) a process evaluation NOT carried out in the UK
- (ii) a non-intervention study (cohort study; case control study; cross-sectional survey) NOT carried out in the UK.

Round 4: exclusion on the grounds of language of the report

Only those outcome or process evaluations written in the English language were included. Unfortunately, we had insufficient resources to translate reports published in other languages.

2.2 Identification of relevant studies

Different sources of published and unpublished research literature were searched to locate any reports describing research on the barriers to, and facilitators of, mental health in young people. The aim of the literature search was to locate a wide variety of research dealing with three broad areas: i) *mental health* (for example, well-being, psychological adaptation), factors known to be closely related to, or 'mediators' of, mental health (e.g. self-esteem, self-concept, coping skills) or *mental ill-health* (e.g. anxiety, self-harm, anorexia); ii) generic and specific *determinants* of mental health or illness (e.g. resilience, risk factors, life change events, unemployment) or the *promotion* of positive health or *prevention* of ill-health (i.e. health promotion, primary prevention); and iii) *young people*.

Searches were conducted on commercially available electronic databases (Medline, EMBASE, PsycLIT, ERIC, the Social Science Citation Index), specialised bibliographic registers (BiblioMap, held by the EPPI-Centre, HealthPromis, held by the Health Development Agency (England) and Health Promotion Library Scotland (HPLS)). Journal articles, held by the Health Education Board for Scotland and databases of reviews of effectiveness (the Cochrane Database of systematic reviews and DARE, the Database of Abstracts of Reviews of Effectiveness, held by the Centre for Reviews and Dissemination at the University of York). The Health Development Agency's project databases, the 'Our Healthier Nation' projects website, REGARD, held by the Economic and Social Research Council and the National Research Register, run by the Department of Health were used to track down reports of unpublished research. The searches covered the full range of publication years available in each database, up to September 1999.

For Medline, EMBASE, PsycLIT, ERIC and the Social Science Citation Index, highly sensitive search strategies were developed using combinations of controlled vocabulary and free-text terms restricted to the title or abstract fields. A wide range of terms for mental health, ill-health or mediators of mental health or ill-health (e.g. SOCIAL-ADJUSTMENT, SELF-CONCEPT, ANXIETY, empower*, mental disorder*) were combined first with health promotion terms or general or specific terms for determinants of mental health or ill-health (e.g. Health-Promotion; BEHAVIOR MODIFICATION, AT-RISK-POPULATIONS,

SOCIOCULTURAL-FACTORS, vulnerability, POVERTY) and then with terms for young people (e.g. ADOLESCENT, teenager*, young adult*, youth). The PsycLit search also included a combination of controlled terms to denote mental health promotion (e.g. PRIMARY-MENTAL-HEALTH-PREVENTION) with terms for young people. The specialised registers were searched with a combination of terms for mental health with terms for young people. (See Appendix A for the full details of the terms used in these search strategies.) All citations identified by the above searches were downloaded into a ProCite database using BiblioLink data-transfer software. They were scanned for relevance as to whether they met this study's inclusion criteria.

2.3 Classification of relevant studies

Full reports were obtained and first classified according to a standardised keywording system developed by the EPPI-Centre (Peersman and Oliver, 1997). This classifies reports in terms of the type of study (e.g. outcome evaluation, survey, case control study); the country where the study was carried out; the health focus of the study; the study population; and, for reports describing or evaluating interventions, the intervention site, intervention provider and intervention type.

In order to gain a richer description of the research literature relevant to the promotion of mental health and the prevention of mental ill-health in young people, reports were then classified according to an additional standardised keywording system, developed for the purposes of this mapping. This keywording system (details of which can be obtained from the EPPI-Centre on request) classified reports in terms of their mental health topic area and characteristics of young people under study, their research design and methodological attributes.

Mental health topic and characteristics of young people

The report's topic and the characteristics of young people included were first described in terms of the focus on different indicators or mediators of mental health or ill-health (for example, suicide, coping, self-esteem), its reference to barriers to, or facilitators of, mental health, grouped into broad categories at three levels: the individual (psychological factors; life events; and physical factors); community (family factors and interpersonal factors); and society (socio-cultural factors and structural factors), and the population under study (e.g. unemployed, homeless, other socially excluded group; aged 11-15, aged >18).

Research design

Outcome evaluations were described according to whether they employed the design of a randomised controlled trial (RCT), a non-randomised trial, or a one group pre-test and post-test design.

Process evaluations were described in terms of the processes of interest (the intervention's implementation and/or its acceptability, and/or explaining why an intervention might have been successful or unsuccessful).

Non-intervention research (cohort studies; case control studies; cross-sectional surveys) were described according to whether they aimed to identify factors

which are linked with mental health/illness, identify how specified factors relate to mental illness, or ask young people for their own views on mental health. Non-intervention research and process evaluations were described according to whether they used qualitative and/or quantitative measures, were cross-sectional or longitudinal in design; and were prospective or retrospective in design.

Systematic reviews were described according to whether they focused mainly on outcome evaluations (addressing questions of effectiveness) or on non-intervention research (asking other research questions).

Methodological attributes

The presence or absence of specified methodological attributes was recorded for each report. One set of attributes was described for outcome evaluations, another set for process evaluations and non-intervention studies and a third set for systematic reviews.

Keywords were applied to outcome evaluations to note the presence or absence of: i) a control group; ii) any pre-test data; iii) any post-test data. If reports described controlled trials but did not mention random allocation, it was noted whether study groups were equivalent at baseline. Outcome evaluations were then further described as potentially 'sound' or 'not sound'. An outcome evaluation with random allocation to groups was described as potentially sound only if it reported both pre- and post-test data. Outcome evaluations that did not report random allocation were only described as potentially 'sound' if, in addition to the above, they also had groups that were equivalent at baseline. All other outcome evaluations were described as 'not sound'. We realise these are fairly crude classifications of how studies were reported rather than how they may actually have been carried out, but it was important to have a workable strategy for classifying a very large volume of research literature in a short time.

For each process evaluation and non-intervention study (which included studies examining young people's views) a record was made of whether the following were reported, not reported, or unclear: i) the number of people participating in the study; ii) their age range; iii) their gender mix; iv) socio-economic background; v) the ethnic make-up of the study population. For process evaluations and for non-intervention studies aiming to represent a specific population, a record was made of: i) the proportion of the original population in the final sample; and ii) characteristics of possible non-responders. For longitudinal studies only, the reporting was noted of: i) the number of those recruited and lost to the study; and ii) any characteristics of individuals lost to the study.

Methodological attributes of systematic reviews were also described in some detail. Keywords here noted whether or not reports: i) presented the review's aims; ii) provided information on the methods and sources used to retrieve studies; iii) described the use of explicit guidelines for determining which material was included or excluded from the review; iv) described standardized methods for extracting data from included studies; v) described undertaking an assessment of the methodological validity of included studies; vi) proposed specific directives for new research initiatives. In addition, each report's analysis and presentation of data was described as one or more of the following: i) studies weighted (authors based recommendations/conclusions only upon

those studies which meet some minimum quality criteria); ii) meta-analysis (authors used meta-analysis to pool data from individual studies); studies summarised (authors gave a description of and integrate the individual studies included in the review using text and/or a table).

3. MAPPING EXERCISE: RESULTS

Outline of Chapter

This chapter describes the findings of the mapping and quality screening of the research literature relevant to mental health promotion amongst young people. It presents:

- *the content focus of the research (e.g. mental health topic; details of the young people studied; barriers and facilitators addressed; characteristics of interventions studies)*
- *the methodological characteristics of the studies (e.g. study design; research question addressed; methods)*
- *gaps in the literature where further research is required*

These results were used to help identify a sub-set of studies to review in-depth.

Because it gives an overview of relevant research it will be useful as a resource. A searchable database of the studies identified for this review is available on-line at <http://eppi.ioe.ac.uk>. The chapter will be of interest to:*

- ***researchers or commissioners** of research wishing to set an agenda for future inquiry, or considering conducting a similar mapping exercise;*
- ***practitioners, policy specialists and health care consumers** who are interested in the types of research conducted, but not concerned with specific details, they may find it useful to read the summary and discussion at the end of the chapter;*
- *those **who want to follow up references to specific types of studies not included in the in-depth review** (e.g. evaluated interventions aimed at preventing eating disorders and conducted in the UK).*

Key Messages

There has been a considerable amount of research activity in this area and a wide range of study types have been used to examine barriers to, and facilitators of, good mental health amongst young people.

- *For studies focused on preventing mental ill-health, the most common focus was suicide or self-harm or behaviour problems. Fewer studies focused on depression, anxiety problems or eating disorders.*
- *Studies focused on the promotion of positive mental health tended to adopt a general approach dealing with a range of issues such as self-esteem/self-concept or coping skills.*
- *Only a third of the studies found focused on socially excluded groups or those at risk of social exclusion (e.g. homeless; young parents). Sixteen per-cent focused on young people considered to be at risk for mental ill-health.*

**Available from November 2001.*

- *A higher proportion of intervention studies than other types of research focused on modifying individual level psychological factors. Intervention studies were also much less likely than non-intervention studies to examine barriers and facilitators at the level of society.*
- *Most intervention studies were carried out in the USA. Only 5% were from the UK. Most were outcome evaluations with or without integral process evaluations. Three-quarters of these were controlled trials with random or non-random allocation.*
- *Only 12% of the non-intervention studies asked young people for their own views.*
- *We identified 13 potentially systematic reviews of the effectiveness of interventions to prevent mental ill-health or promote positive mental health. The majority of reviews made policy and practice recommendations, although the methods used to conduct them were of variable quality.*

3.1 Identification of relevant studies

Our search strategies yielded 11,638 citations. From their abstracts or titles 948 of these were deemed to meet the inclusion criteria laid out in chapter 2. Most citations were excluded because they described non-intervention studies conducted outside the UK; were not concerned with primary prevention of mental ill-health or promotion of positive mental health in young people or described non-systematic reviews.

The processes involved in this initial screening are shown in table 1.

Table 1: Literature flow

Total citations	11,638
Met inclusion criteria	948
Could not be located/not available in time	249
Full reports available	699
Did not meet inclusion criteria	354
Available for inclusion in this report	345

Full reports were obtained for 699 (74%) of the 948 citations within the time scale for the review. Once full reports had been obtained, a further 354 were found not to meet the inclusion criteria, leaving a total of 345 studies. Of the 249 reports we were unable to collect in the time available, some could not be found (e.g. the wrong reference details had been cited on bibliographic databases; letters written to contacts were not answered). The remaining reports had not arrived from the British Library at the time of writing, despite having been on order for several months.

Table 2 shows the productiveness of the different search strategies.

Table 2: Number and per cent of mental health studies found within different bibliographic sources (N=345)

Bibliographic Source	N	%
'Commercial' bibliographic databases	241	70
Specialised bibliographic registers	93	27
Personal contact	11	3

Most studies were found on commercially available bibliographic databases (70%). The most productive of these were PsycLIT and Medline which found 40% (n=140) and 15% (n=51) of all studies respectively. An additional 22% of studies were found by searching on specialised registers. The most productive of these was BiblioMap which found 17% (n=58) of all studies. The remaining studies were identified through personal contact with other researchers and organisations.

3.2 Classification of studies

Study type

As outlined in the previous chapter, we only included those study types which would be relevant to our review questions: intervention studies (outcome evaluations or process evaluations), non-intervention studies (cohort studies; case control studies; cross-sectional surveys) and systematic reviews. Table 3 shows the distribution of the 345 studies according to these study types.

Table 3: Distribution of mental health studies according to study type (N=345)

	N	%
Intervention studies	187	54
Outcome evaluations	185	53
<i>Outcome evaluations only</i>	149	
<i>Outcome and process evaluations</i>	36	
Process only evaluations	2	1
Non-intervention research	133	39
Cohort study	17	5
Case Control Study	23	7
Survey	93	27
Systematic review	25	7

Over half the studies we identified were classified as 'intervention research' (54%). Nearly all were outcome evaluations (53%), either outcome only evaluations (43%) or outcome evaluations with integral process evaluations (10%). Only a tiny proportion of studies were process only evaluations (1%).

Just over a third (39%) of the studies were classified as non-intervention research. Most of these were cross-sectional surveys with smaller proportions of cohort and case control studies. Systematic reviews made up the remainder of the studies identified (7%). These either focused on the effectiveness of interventions (e.g. Tilford *et al.*, 1997) or offered other types of overview (e.g. a meta-analysis by Kling *et al.*, 1999 examining the relationship between gender and self-esteem).

The smaller proportion of non-intervention studies identified probably reflects the inclusion criteria employed in this review (studies carried out in the UK only) rather than the status of research on mental health and young people.

Mental health focus

Studies were coded according to the main aspect of mental health or ill-health on which they focused. Table 4 shows the mental health topics covered by the studies. The topics have been grouped according to whether they focused on the prevention of specific disorders or problems or aspects of positive mental health.

Table 4: Number and proportion of studies according to mental health focus (N=345)

	N	%
Prevention of specific disorders/problems	148	43
Anxiety	10	3
Behaviour problems	31	9
Depression	19	6
Eating disorders	22	6
Post-traumatic stress disorder	2	1
Self-harm/suicide	46	13
Stress	18	5
Promotion of positive mental health	197	57
Coping	20	6
General mental health	115	33
Mental health services	6	2
Self-concept	22	6
Self-esteem	29	8
Supportive relationships	5	2

Just over half of the studies focused on promoting or maintaining good mental health (57%) and just under a half focused on preventing mental ill-health

(43%). Examples of studies to illustrate each of the different mental health topics are given below.

The largest single group of studies examined suicide or self-harm (13%). Examples of these were evaluations of interventions designed to increase knowledge about how to respond to a suicidal peer (e.g. Abbey *et al.*, 1989; Davidson and Range, 1999); some designed to reduce suicidal or self-destructive behaviours (e.g. Rudd *et al.*, 1996; Shaffer *et al.*, 1990); and some implemented in schools after the suicide of a classmate (Hazell and Lewin, 1993). Most of the non-intervention research on this topic examined patterns of suicide rates (e.g. Hawton *et al.*, 1995, 1999) and the characteristics of young people who attempt or commit suicide (e.g. Wannan and Fombonne, 1998; Kingsbury, 1994; Kingsbury *et al.*, 1999). Many used data collected as a routine part of clinical or social care. A significant proportion also examined behaviour problems (9%). Interventions targeted specific behaviour problems such as violence (e.g. Bosworth *et al.*, 1998; Sacco and Twemlow, 1997), the prevention of early drop-out from school (e.g. Bry and George, 1980; Sinclair *et al.*, 1998) or drug abuse (e.g. Barrett and White, 1991; Eggert *et al.*, 1990). Most of the non-intervention research on this topic examined the social and psychological characteristics of young people displaying behaviour problems (e.g. Hagell and Newburn, 1996), whilst one examined the effects of bullying (Sharp, 1996).

Fewer studies examined depression, eating disorders or stress (6%, 6% and 5% respectively). Examples of these from the intervention studies included interventions for young people thought to be at increased risk for developing depressive disorders (e.g. Beardslee *et al.*, 1997; Clarke *et al.*, 1995) as well as those which are aimed at young people in general (e.g. use of a board game to reduce irrational beliefs and thinking amongst high school students evaluated by Wilde, 1994); classroom-based interventions to prevent eating disorders which focused on promoting healthy eating and physical activity as opposed to dieting, countering the social and cultural pressures to be thin (e.g. Buddeberg *et al.*, 1998; Paxton, 1993). Interventions which aimed to reduce stress included some specifically targeted at helping young people deal with the stressors arising from physical illness (Boardway *et al.*, 1993), teaching relaxation skills in the classroom (e.g. de Anda, 1998; Hains and Ellman, 1994) and reducing the stress involved in making transitions to secondary education (Schinke *et al.*, 1987).

Non-intervention research on these topics focused mainly on levels of depression in particular groups of young people such as those who are unemployed (e.g. Branthwaite and Garcia, 1985); predictors of eating disorders or problems in young women (e.g. Button *et al.*, 1996; Waller *et al.*, 1992); and levels of stress (e.g. Bagley and Mallick, 1995). Even fewer studies examined anxiety or post-traumatic stress disorder (3% and 1% respectively). Intervention studies here included those aiming to prevent anxiety problems by focusing on reducing specific anxieties such as interpersonal relations (Warren *et al.*, 1984) or public speaking apprehension (Ayres *et al.*, 1995; Wehr and Kaufman, 1987); some targeted young people at high risk for developing anxiety disorders (e.g. Dadds *et al.*, 1997). Two studies focused on post-traumatic stress disorder; one examined gender differences in traumatic stress reactions (Curle and Williams, 1996), and one looked at the prevention of post-traumatic stress disorder in young people exposed to the 1988 earthquake in Armenia (Goenjian *et al.*, 1997).

The largest proportion of studies in table 4 focused on positive mental health were classified as examining mental health in general (33%). These included studies examining specific aspects of positive mental health (e.g. self-esteem/self-concept and coping skills), and those using global assessments or measures of mental health or well-being. The intervention studies in this group included several aiming to promote awareness of mental health issues (e.g. Parry-Langden, 1997; Rahman *et al.*, 1998); others were aimed at promoting 'well-being' and 'adjustment' in the face of adverse or developmental life events such as divorce or the transition to young adulthood (e.g. Lamothe *et al.*, 1995; Walton *et al.*, 1999); some targeted more than one specific aspect of positive mental health such as a community-based peer-led counselling group to foster coping skills and social support evaluated by Carty (1993) and an intervention aimed at promoting career maturity and self-concept evaluated by Pavlak and Kammer (1985). A small number of non-intervention studies in this category used qualitative approaches to data collection, for example an interview-based study examining young people's attitudes to, and views on, mental health and illness (Armstrong *et al.*, 1998). Most were larger scale studies using standardised health status questionnaires or mental health checklists. Sweeting and West (1995), for example, used a combination of interviews and postal questionnaires in a three year follow up of 908 15 year olds, examining the relationship between family culture, structure and socio-demographic variables and self-esteem, and a variety of measures of psychological and physical well-being.

A significant proportion of positive mental health studies shown in table 4 focused on self-esteem, self-concept or coping (8%, 6% and 6% respectively); fewer studies examined supportive relationships (2%) or mental health services (2%). Studies specifically focused on promoting self-esteem or self-concept included 'one-off' interventions such as the rehearsal or provision of positive evaluations of the self (Bekanan *et al.*, 1975; Philpot and Bamburg, 1996), sustained interventions involving the whole family in developing family structures to promote self-esteem (Bredehoft and Hey, 1985; Jurich and Collins, 1996), interventions focused on fostering a sense of cultural identity (e.g. Fertman and Chubb, 1992; Ghee *et al.*, 1997), educational interventions promoting alternative modes of learning (Nichols and Utesch, 1998; Smith *et al.*, 1982), interventions to develop social skills (Spence and Spence, 1980; Wanat, 1983) and 'summer camp' programmes (e.g. Nowicki and Barnes, 1973; Rohrbacher, 1973). Examples of non-intervention research focused on self-esteem or self-concept included those which examined gender differences (e.g. Wilgenbusch and Merrell, 1999) and those looking at levels of self-esteem among particular groups of young people (e.g. Breakwell, 1985).

Examples of interventions which aimed to foster supportive relationships included the development of community-wide support for young pregnant women (D'Andrea, 1994), and a friendship club for Yugoslavian refugees (Davis, 1998). An example of an intervention focused on mental health services was a study which examined the feasibility of a health promotion clinic within primary care to explore the mental health concerns of young people and identify those at high risk of depressive disorder (Westman and Elena, 1996).

Young people studied

Table 5 shows the findings of the mapping exercise in terms of the age range of populations included in different studies. The largest proportion fell into the age range 11-18 (33%). This reflects the dominance of school-based studies. Fewer studies focused on young people aged 16 and over (19%) than on young people younger than 16 (28%). Substantial proportions of studies focused on the whole age range of young people included in this mapping (13%).

Table 5: Number and proportion of studies according to age range (N=345)

	N	%
Under 16 only	95	28
16 and over only	66	19
11-18	113	33
11-21	46	13
Not specified	25	7

Table 6 shows the population group involved in the 345 studies which met the inclusion criteria for the mapping exercise. The table is broken down into three broad population groups: socially excluded; 'at risk' for developing mental health problems; and young people in general. For the socially excluded groups, the table shows further how many of the interventions were for particular socially excluded groups. In the interests of simplicity, we have made each category mutually exclusive and fixed. However, this masks the fact that many young people are likely to belong to more than one socially excluded group, and that their membership of one group is not fixed over time. For example, young people who are pregnant or members of an ethnic minority may also be living on low incomes.

Most studies were concerned with young people in general (54%). A third examined mental health amongst groups of young people who could be considered to be from a socially excluded group (32%). Most of the research concerned with socially excluded young people used samples identified with mental illness or belonging to a particular ethnic minority (both 5%). In line with this study's focus on primary prevention, the first of these categories included two kinds of study: evaluations of interventions that included young people who were identified as having mental health problems after a study's start and non-intervention studies that examined circumstances prior to the appearance of mental health promotion. 'Other' excluded groups were young people living in care (Levinson and Minty, 1992); refugees (Davis, 1998); and young people living in poverty (e.g. Miller, 1993). Four studies focused on more than one socially excluded group.

Studies classified as focusing on groups of young people considered to be 'at risk' (14%) included some which described the young people simply as 'high risk' or 'at risk' with no information provided on why they had been categorised in this way (e.g. Andrews *et al.*, 1995; Forman *et al.*, 1990), and others examining groups of young people thought to be 'at risk' by virtue of a

personal, family or societal characteristic such as school failure (e.g. Stevens and Pihl, 1982), having divorced parents (e.g. Walton *et al.*, 1999) and making a life transition (e.g. Felner *et al.*, 1993).

Table 6: Number and proportion of studies according to target population group (N=345)

	N	%
Socially excluded groups	111	32
Excluded from school/education	4	1
Ethnic minority	17	5
Homeless	6	2
Identified with mental illness/mental health problem	18	5
Learning disabilities	7	2
Low-income	6	2
Physical illness/disability	12	4
Pregnant/young parents	8	2
Unemployed	14	4
Young offenders	10	3
Other excluded group	5	1
Multiple excluded groups	4	1
'At risk' group	49	14
Young people in general	185	54

The intervention studies were much less likely than the non-intervention studies to focus on socially excluded populations (25% compared with 47%) (not shown in table). This difference was seen in particular for unemployed young people (none of the intervention studies focused on this group of young people whilst 10% of the non-intervention studies did).

Examples of the intervention studies which focused on young people excluded from school included the prevention of future drop-out by improving academic and vocational skills (e.g. Amster and Lazarus, 1982; Daugherty and Compton, 1996) and prevention of mental health problems among drop-outs (e.g. Eggert *et al.*, 1995; Trotter and Jones, 1998). Examples of the intervention studies which focused on young people from an ethnic minority were those which involved culturally tailored intervention strategies (e.g. a community-based social skills training programme for violence prevention amongst African-American youth evaluated by Banks and Hogue, 1997) and those which were school or community based strategies using peer and community leaders (e.g. Royse, 1998; Wiist *et al.*, 1996). Only one intervention focused on homeless young people. This was a study examining the effectiveness of intensive case management in which young homeless

people in Seattle were given increased access to specialist mental health services (Cauce *et al.*, 1994). Studies looking at young people who had been labelled as showing signs of mental ill-health included school-based interventions for those showing symptoms of depression and anxiety (e.g. Jaycox *et al.*, 1994; Warren *et al.*, 1984). There was a wide range of interventions for young people with physical and/or learning disabilities, from summer camps, vocational training and school drop-out prevention, to peer tutoring aiming to foster personal development, life skills and self-esteem/self-concept (e.g. Brannan *et al.*, 1996; Lazerson *et al.*, 1988; Sinclair *et al.*, 1998). Those focused specifically on young people on a low-income/from a low income family included an intervention using written materials to improve the self-concept of young females (Miller, 1993) and one aiming to improve communication skills (Ayres *et al.*, 1995). Those targeted at young people with a chronic physical illness such as diabetes aimed to develop general skills to cope with the stresses and demands of the illness (e.g. Coupey *et al.*, 1991; Hagglund *et al.*, 1996).

Interventions aiming to promote the mental health of young pregnant women included school-based interventions for coping and effective parenting skills (e.g. Emmons and Nystul, 1994; Schinke *et al.*, 1986), aerobic exercise classes (Koniak-Griffin, 1994) and increased access to social support within the community (D'Andrea, 1994). Interventions implemented with young offenders included programmes aimed promoting future vocational opportunities (Pavlak and Kammer, 1985) and the development of social skills (Spence and Spence, 1980; Vail and Nest, 1992).

Most of the non-intervention studies looked at young people who were either identified as being mentally ill or having problem behaviour, were unemployed, physically ill or disabled. The studies in the first of these categories mainly looked for factors predictive of depression, suicide or self-harm. Hollis (1996), for example, used a case-control design to compare the family relationship problems of 284 children or young people who had attended the Maudsley hospital in London as a result of suicidal behaviour with those of 3,054 non-suicidal controls.

The relatively high proportion of studies focused on unemployed young people is of particular interest, since none of the UK intervention studies targeted an intervention at this group. Most of this research was conducted in the 1980s. Examples of non-intervention studies in this category include five longitudinal studies on the links between employment status and psychological well-being (Banks and Jackson 1982 ; Donovan *et al.*, 1986; Jackson *et al.*, 1983; Mean Patterson, 1997; Montgomery *et al.*, 1996).

Which barriers and facilitators did the studies focus on ?

Table 7 shows types of mental health barriers and facilitators. There were a total of 585 factors mentioned in the 345 studies. The largest group of factors examined were those at the individual-level, in particular 'psychological' factors (29%). Such factors included knowledge, attitudes, decision-making and problem-solving skills and particular psychological 'traits', 'personality characteristics' or 'ways of responding' such as coping styles or locus of control. Fewer factors were examined looking at factors at the community level such as family characteristics (12%) or interpersonal relationships (18%). Similarly, fewer factors were examined which focus on the role of wider

society in mental health ('socio-cultural', 16%; 'structural', 16%). A minority of barriers and facilitators examined in the studies were classified as 'life event' factors or 'physical factors' at the individual level (3% and >1% respectively). Those which focused on 'life events' tended to examine the impact on mental health of divorce or bereavement and how young people can cope with these life events. Studies classified as focusing on physical factors mostly evaluated the effects of physical activity.

Table 7: Barriers and facilitators (N=585) examined in the studies (N=345)

	N	%
Individual	197	34
Life event factors	20	3
Physical factors	4	>1
Psychological factors	173	30
Community	174	30
Family factors	71	12
Interpersonal factors	103	18
Society	182	32
Socio-cultural factors	91	16
Structural factors	91	16
Unfocused/unspecified factors	32	6

Non-intervention studies were much more likely than intervention research to examine structural factors than non-intervention research (20% versus 11%) and much less likely to examine individual level 'psychological' factors (19% versus 36%) (not shown in table). In part, this reflects the greater degree of interest in non-intervention studies in the potential effects of unemployment on mental health. Most of the non-intervention studies focused on 'structural' factors examined the effects of young people's unemployment or that of their parents (an example of the latter is given by Monck *et al.*, 1994a, 1994b). At the individual level, examples from the intervention studies which focused on 'psychological' barriers or facilitators included: the development of decision-making and problem-solving skills to enable young people to make more realistic appraisals of their lives (e.g. Baker *et al.*, 1983); increasing awareness and knowledge of mental illness and changing attitudes towards mental ill-health (e.g. Clarke *et al.*, 1993); teaching coping skills to deal with stressful situations or negative life events (e.g. Forman *et al.*, 1990); the exploration of emotion in a group counselling context to facilitate the expression of emotion (e.g. Bayer, 1986); and teaching relaxation skills to combat stress (e.g. Kahn *et al.*, 1990). Interventions focused on life events included helping young people cope with possible negative life events, for example, parental divorce, accidents or disasters. Those classified as targeting physical factors used physical activity or training in relaxation skills to promote positive mental health (e.g. Boyd and Hrycaiko, 1997).

At the community level, studies focused on ‘family’ factors covered some which included the whole family in intervention activities (e.g. Beardslee *et al.*, 1997; Bredehoft and Hey, 1985), some which included family support as one component of an intervention (e.g. Andrews *et al.*, 1995), and others which taught young people skills to communicate with their families or helped them to cope with a family member in crisis (e.g. Brondino *et al.*, 1989; Heiney and Lesesne, 1996). Interventions targeting ‘interpersonal’ factors included building social support networks (e.g. Lamothe *et al.*, 1995) and developing social skills to facilitate better interpersonal relationships (e.g. Margalit, 1995). At the wider society level, examples of interventions which focused on ‘socio-cultural’ factors included intervention programmes aiming to foster positive cultural identities (e.g. Cherry *et al.*, 1998) and those exploring cultural representations of women (e.g. in magazines and the media) in the context of the prevention of eating disorders (e.g. Buddeberg *et al.*, 1998). Interventions targeting ‘structural’ factors were those providing increased access to resources or services (e.g. Cauce *et al.*, 1994; Gittman and Cassata, 1994), environmental modification (Felner *et al.*, 1993; Wiist *et al.*, 1996) and legislation or regulation (e.g. Sacco and Twemlow, 1997).

3.3 Characteristics of intervention studies

This section discusses the substantive and methodological characteristics specific to the 187 intervention studies which were among the 345 studies identified from initial searches.

Country in which studies were conducted

Table 8 shows the number and proportion of the 187 intervention studies according to the country in which the intervention was implemented.

Table 8: Number and proportion of intervention studies according to country in which the intervention was implemented (N=187)

	N	%
USA	150	80
UK	9	5
Canada	10	5
Australia/New Zealand	5	3
Rest of Europe*	7	4
Rest of world**	6	3

* Finland, Italy, Sweden, Switzerland, Yugoslavia

** Jamaica, Israel, Pakistan, India

Most of the intervention studies were carried out in the USA (80%). Studies from the UK and Canada each made up 5%. The smallest proportion of reports came from Australia and New Zealand (3%), the rest of Europe (4%) and other individual countries around the world (3%). These figures may reflect bias within the bibliographic sources searched towards studies published within North America and the UK; there is also clearly likely to be a

bias as a result of our inclusion criteria restricting studies to those written in the English language only.

Intervention site

Table 9 shows the settings in which the interventions were implemented in the 187 intervention studies.

Table 9: Number and proportion of intervention studies according to intervention site (N=187)

	N	%
Community	22	12
Correctional institution/Residential care	4	2
Educational setting	135	72
Health care setting	5	3
Home	3	2
Mass media	3	2
Multiple sites	7	3
Unspecified	8	4

Most interventions were delivered in educational settings (72%), in particular within secondary education (n=116, 62% - not shown in table). This means that most mental health promotion interventions were classroom-based, although some did involve intervention programmes using a whole-school approach, for example, by implementing mental health promoting school policies (e.g. Felner *et al.*, 1993).

A smaller proportion of interventions were delivered in community sites (12%). These included a peer counselling programme implemented in a youth centre (Carty, 1991), a church-based intervention for the peers of a young person who had committed suicide (Sandor *et al.*, 1994) and two interventions implemented in US African-American communities (Banks and Hogue, 1997; Ghee *et al.*, 1997). A minority of interventions were implemented in a health care setting (3%), within correctional institutions (2%), the home (2%) and using mass media (3%). These included a stress management training programme for young people with diabetes (Boardway *et al.*, 1993), a careers guidance programme for young offenders (Pavlak and Kammer, 1985) and a mass media campaign aimed at raising awareness of mental health issues in young men (Ritchie, 1999).

Intervention provider

Table 10 shows the range of intervention providers involved in delivering mental health promotion. As each intervention could involve more than one provider the intervention studies covered a total of 240 providers.

Table 10: Intervention providers (N=240) described in the intervention studies (N=187)

	N	%
Community worker	22	9
Counsellor	23	10
Health professional	23	10
Peer	31	13
Psychologist	23	10
Researcher	14	6
Social worker	8	3
Teacher	51	21
Other	18	7
Unspecified	27	11

The biggest single category of providers was teachers (21%), reflecting the fact that most interventions were implemented in school settings. Those interventions delivered by teachers were more likely to be concerned with the promotion of positive mental health than with preventing specific mental health problems. Not surprisingly substantial numbers of interventions were delivered by professional groups traditionally associated with providing mental health services (counsellors made up 10% of all providers, health professionals 10%, and psychologists 10%). Young people themselves made up 13% of those delivering interventions. Many of these involved peer counselling services in which peers are trained to respond to, and provide support for, young people presenting with particular problems (e.g. Hahn and LeCapitaine, 1990) or peer-tutoring projects (e.g. Lazerson *et al.*, 1988). Other providers included computers (e.g. a violence prevention curriculum evaluated by Bosworth *et al.*, 1998), parents (in conjunction with other providers), church leaders, aerobic instructors and residential workers. Interestingly, only one intervention was delivered by an individual described as a health educator or a health promotion practitioner (Caplan *et al.*, 1992).

3.4 Methodological attributes of intervention studies

Outcome evaluations

Of the total number of intervention studies identified (N=187), 185 were outcome evaluations (see table 3 in section 3.1). Table 11 shows the design of these studies. Three-quarters of all the outcome evaluations employed a control group, and were either randomised controlled trials (RCTs) or non-randomised controlled trials.

Using the classification described earlier (equivalent intervention and control groups, pre- and post-test data), half the 185 outcome evaluations were judged to be 'potentially sound' (n=90, 49%) and half as 'not sound' (n=95,51%)

Table 11: Number and proportion of outcome evaluations according to design (N=185)

	N	%
Controlled trial	138	75
Randomised controlled trial	68	37
Non-randomised controlled trial	70	38
One group pre- and post-test	47	25

Only seven of the 185 outcome evaluations were carried out in the UK (Carter *et al.*, 1997; Charlton, 1986; Farnham and Mutrie, 1997; Gibbs and Bunyan, 1997; Parry-Langdon, 1997; Ritchie, 1999; Simmons and Parsons, 1983). Two of these were classified as ‘potentially sound’ (Charlton, 1986; Parry-Langdon, 1997).

Process evaluations

We identified a total of 38 process evaluations (see table 3 in section 3.1). Thirty-six of these were ‘attached’ to outcome evaluations, that is the studies were concerned with evaluating both intervention processes and outcomes. There were two process only evaluations, both conducted in the UK (Seaton, 1996; Westman and Elena, 1996). The process evaluations were classified according to which intervention processes they evaluated. Two-thirds (n=25, 66%) examined the acceptability of the intervention to young people. For example Parry-Langdon (1997) examined the views of young people aged 16-19 on a video designed to raise awareness of mental health promotion and to reduce the stigma of mental illness; Nelson (1987) sought students' views on what they liked most and least about a school-based suicide prevention curriculum implemented in a US high school. Nearly half examined the processes involved in the implementation of the intervention (n=18, 47%). For example, Rice and Meyer (1994) evaluated the degree to which a suicide prevention programme for US high school students had been implemented according to the programme manual. A few process evaluations examined both acceptability and implementation processes (n=8, 22%).

Tables 12 and 13 show some of the methodological attributes of the 38 process evaluations.

Most of the process evaluations used cross-sectional designs (87%) and collected quantitative data only (68%). A variety of methods, such as self-completion questionnaires, observation, case studies and interviews were used.

Table 12: Number and proportion of process evaluations according to methodological attributes (N=38)

	N	%
Study design		
Cross sectional	33	87
Longitudinal	5	13
Total	38	100

Table 12: Number and proportion of process evaluations according to methodological attributes (N=38) **cont'd**

Type of data collected		
Qualitative	6	16
Quantitative	26	68
Qualitative and quantitative	6	16
Total	37	100

Table 13 shows that the quality of the reporting in the process evaluations varied enormously. Whilst three-quarters (79%) reported the number of young people in their sample, fewer reported on age or sex (66% and 55% respectively). A minority of process evaluations described the ethnicity of the sample (26%), and socio-economic background (16%). Only 24% provided a response rate. Only one study provided any details on those young people who chose not to take part in the study. This lack of information is a problem when it comes to the reliability of study findings.

Table 13: Number and proportion of process evaluations reporting sample characteristics (N=38)

Reported	N	%
Sample number	30	79
Age	25	66
Sex	21	55
Ethnic group	10	26
Socio-economic background	6	16
Response rate	9	24
Non-responders' details	1	3

3.5 Methodological attributes of non-intervention studies

This section looks at the 133 studies classified as UK-based non-intervention studies. These included 17 cohort studies, 23 case control studies, and 93 cross-sectional surveys. As with the process evaluations described in the previous section, there are general problems with small, non-representative samples and poor reporting of participant details.

Table 14 shows the research question and method of data collection. Half the research questions in the non-intervention studies concerned the links between mental illness and other factors (47%). Slightly less than half (41%) were explanatory questions about how or to what extent specified factors might relate to mental illness. The former set of studies, arguably, produce findings that are of most use at the earlier stages of examining an aspect of mental health. Many of the explanatory studies used multivariate analysis to examine interrelationships among several potential factors, aiming to provide a more complete picture of what aspects of young people's lives might be the

most important with regard to their mental health. An example of a large-scale study of this sort is Chase Lansdale *et al.* (1995). An example of an approach using qualitative data to build up an explanatory picture of mental health is the study by Doyle *et al.* (1994), which examines the perceptions of 65 young disabled people from various ethnic backgrounds about the effects on well-being of various aspects of their lives, including services, family structure and support, academic achievement and employment.

A much smaller proportion of the research questions in table 14 (12%) were about young people's own views on mental health.

Table 14: Number and proportion of non-intervention studies according to their research question and approach to collecting data (N=133)

	N	%
Research question		
Association	63	47
Explanatory	54	41
Young people's views	16	12
Data collection		
Qualitative	17	13
Quantitative	99	74
Qualitative and quantitative	17	13

Most of the data collected in the non-intervention studies were quantitative only (74%), using self-completion questionnaires and semi-structured interviews. In 17 cases data were collected using qualitative methods, usually through semi-structured or in-depth interviews. While there were examples where the study was of a broad population of young people (e.g. Bowen, 1997; Williamson and Cullingford, 1998), most of the 13 qualitative studies involved socially excluded groups. These include three studies that purposefully targeted young people from minority ethnic groups (Ahmad *et al.*, 1994; Doyle *et al.*, 1994; Kingsbury, 1994), two studying unemployed young people (Breakwell, 1985; Mean Patterson, 1997), two involving young people with mental health problems or in residential care (Swaffer and Hollin, 1997; Wannan and Fombonne, 1998) one that surveyed young people with learning difficulties (Norwich, 1997) and another of young, homeless people (Hirst, 1996).

Table 15 gives similar information for the non-intervention research as for the process evaluations earlier. It shows considerable variability in the reporting of sample number and demographic characteristics. All except two of the studies reported the number of young people in their sample, and a large proportion reported on their samples' age and sex (98% and 93% respectively). Only a minority of non-intervention studies reported on ethnicity (27%) or socio-economic background (40%).

Table 15: Number and proportion of non-intervention studies reporting sample characteristics (N=133)

Reported	N	%
Sample number	131	99
Age	130	98
Sex	124	93
Ethnic group	36	27
Socio-economic background	53	40

Table 16 gives information about response and drop out rates. Again, this table illustrates the variability in the quality of reporting of basic information. About a third of the studies (36%) reported a response rate for their sample, and under a fifth (17%) provided any details on those young people who chose not to part in the study. Although this figure is higher than those described for process evaluations (3%) (see table 13), the non-intervention studies' level of reporting often makes it extremely difficult to assess whether their results or conclusions are representative of the group of young people from whom the samples were drawn.

Table 16: The reporting of information about response and drop out in the non-intervention studies (N=133)

Response rate	N	%
Reported	48	36
Not reported or unclear	71	53
Inapplicable	14	11
Details of non-responders		
Reported	23	17
Not reported or unclear	93	70
Inapplicable	17	13
Drop-out rate		
Reported	20	15
Not reported or unclear	1	1
Inapplicable	112	84
Details of drop-outs		
Reported	12	9
Not reported or unclear	9	7
Inapplicable	112	84

Drop-out rates were reported in 20 of the 21 studies where this methodological aspect was relevant. Almost half these studies (n=9) failed to give any detail about those known to have dropped out. This makes it difficult to assess the extent of any bias due to differences between those dropping out and staying in.

3.6 Characteristics and methodological attributes of (potential) systematic reviews

A total of 25 reports of potential systematic reviews were identified. These described a total of 21 separate reviews as some reviews were reported in more than one publication. These 21 reviews were classified as either reviews of effectiveness (n=13) or reviews of non-intervention research which were not concerned with effectiveness (n=8). There was a great deal of variation in the methods and reporting of these reviews, but they included some well-designed and potentially useful studies.

Reviews of effectiveness

Of the 13 reviews of effectiveness, seven covered a range of mental health issues and mental health in general (Durlak and Wells, 1997; Hodgson and Abassi, 1995; Hosman and Veltman, 1994; Nicholas and Broadstock, 1999; Scott and Warner, 1975; Tilford *et al.*, 1997; Walker and Townsend, 1998); three examining interventions to prevent suicide (Hider, 1998; Mazza, 1997; Ploeg *et al.*, 1999), one an intervention designed to enhance self-esteem (Haney and Durlak, 1998), one looking at stress prevention (Maag and Kotlash, 1994); and one the effectiveness of adventure education (Hattie *et al.*, 1997). The number of primary studies included in the reviews ranged from eight to 300, spanning a publication period from 1968 to 1999. Data analysis was primarily by narrative synthesis, although in three cases meta-analysis was used (Durlak and Wells, 1997; Haney and Durlak, 1998; Hattie *et al.*, 1997). Six reviews focused on young people only (Hider, 1998; Mazza, 1997; Nicholas and Broadstock, 1999; Ploeg *et al.*, 1999; Scott and Warner, 1975; Walker and Townsend, 1998), whilst the remaining reviews focused on adults and/or older people and children as well as young people.

Table 17: Methodological attributes of the effectiveness reviews (N=13)

	Stated	Not stated/unclear
Aims	13 (100%)	0 (100%)
Search strategy	7 (54%)	6 (46%)
Inclusion criteria	9 (69%)	4 (31%)
Quality assessment	6 (46%)	7 (54%)
Standard data extraction	4 (30%)	9 (70%)
Future research/practice directives	12 (92%)	1 (8%)

Table 17 presents data on the methodological attributes of the reviews. All the reviews reported their aims, half (54%) provided details of the search strategy

used, two thirds (69%) details of the inclusion criteria employed and just under half (46%) details on the methods used to assess the quality of the primary studies. Use of a standardised data extraction tool was reported in a third (30%) of the studies. Most (92%) of the reviews provided recommendations for research and practice.

Reviews of effectiveness judged to meet a minimum quality standard were assessed in detail, and are discussed in chapter 5.

Reviews of non-intervention research

There were eight reviews of non-intervention research. These focused on different mental health areas: factors associated with suicide (Anderson, 1999); gender differences in self-concept (Wilgenbursch and Merrell, 1999); gender differences in self-esteem (Kling *et al.*, 1999); parental divorce and well-being (Amato and Keith, 1991); depression amongst young people with physical illness (Bennett, 1994); issues in somatization (Campo and Fritsch, 1994); a review of coping research (Rosella, 1994); and mental health in general amongst homeless young people (Slegers *et al.*, 1998). The number of primary studies included varied from 18 to 184, with publications ranging in date from 1957 to 1998. Data synthesis was primarily in narrative form (sometimes augmented with data tables), although four reviews conducted meta-analysis (Amato and Keith, 1991; Bennett, 1994; Kling *et al.*, 1999; Wilgenbursch and Merrell, 1999). Table 18 shows that the methodological quality of the reviews was variable. All stated their aims, search strategy and inclusion criteria. However, there was little evidence of quality assessment and none reported use of standardised data extraction methods. As with the reviews of effectiveness, most provided recommendations for research and practice.

Table 18: Methodological quality of the reviews of non-intervention research (N=8)

	Stated	Not stated/unclear
Aims	8 (100%)	0 (0%)
Search strategy	8 (100%)	0 (0%)
Inclusion criteria	8 (100%)	0 (0%)
Quality assessment	1 (12%)	7 (88%)
Standard data extraction	0 (0%)	8 (100%)
Future directives	7 (88%)	1 (12%)

3.7 Summary and Discussion

The main findings of this mapping and quality assessment exercise are as follows:

* There has been a considerable amount of research activity in the area of mental health and young people. Searches produced 11,638 citations, of which 345 met the inclusion criteria developed for the mapping exercise and were available for inclusion within the time frame of this review.

- * Questions about potential barriers to, and facilitators of, mental health have been addressed in a wide range of study types. The studies included 187 outcome or process evaluations, 17 cohort studies, 23 case control studies, 93 surveys and 25 reports of 21 separate potentially systematic reviews.
- * The focus on preventing mental ill-health and promoting positive mental health was split relatively evenly, both for intervention and non-intervention studies. Just under half (43%) focused on the prevention of mental ill-health.
- * For studies focused on preventing mental ill-health, the most common focus was suicide or self-harm or behaviour problems (13% and 9% respectively). Fewer studies focused on depression, anxiety problems or eating disorders.
- * Studies focused on the promotion of positive mental health tended to adopt a general approach dealing with a range of issues such as self-esteem/self-concept or coping skills.
- * Just over half of all the studies were concerned with young people in general; a third focused on socially excluded groups, in particular those from ethnic minorities or with mental health problems. A further 16% focused on young people considered to be at risk for mental ill-health. The proportions of studies focusing on these populations differed between intervention and non-intervention studies, with a bigger proportion of non-intervention studies looking at socially excluded groups (47% compared with 25% for intervention studies).
- * Most barriers and facilitators examined in the studies were at an individual level (34%), in particular psychological barriers and facilitators such as coping or decision-making skills, although substantial proportions were also classified at the community level (30%) and wider society level (32%). The proportions of different types of barriers and facilitators differed between intervention and non-intervention studies, with a higher proportion of intervention studies focused on modifying individual level psychological factors (36%, compared with 19% for non-intervention studies). Intervention studies were also less likely to attempt to modify barriers and facilitators at the level of society than non-intervention studies (11% compared with 20% for non-intervention studies).
- * Most intervention studies were carried out in the USA; 5% were from the UK. Most were outcome evaluations: we only identified two process only evaluations. Seventy five per cent were controlled trials (37% randomised, 38% non-randomised). Half of these were classified as being potentially methodologically sound.
- * Of the non-intervention studies, less than half (47%) sought to identify the predictors and mechanisms which may affect mental health. Only 12% asked young people for their own views.
- * The reporting of crucial information about the samples used in the non-intervention research was highly variable. While nearly all studies reported sample number (99%), age (98%) and sex (93%), few reported details on

ethnic group (27%) or socio-economic background (40%). Also, few studies provided a response rate (36%).

* We located a substantial number of reports of potentially systematic reviews. Thirteen reported on reviews of the effectiveness of interventions to prevent mental ill-health or promote positive mental health.

* On the whole, the reviews reported their aims, search strategies, inclusion criteria and methods of appraising study quality. Fewer, however, reported standardised methods of data extraction. Most presented their results in a narrative format rather than meta-analysis.

* The majority of reviews made policy and practice recommendations, though the evidence-base was often weak.

Although this mapping exercise has uncovered a considerable amount of research activity in the area of mental health and young people, it has also highlighted a number of important gaps and deficiencies. Firstly, much less attention has been paid to mental health problems such as mood disorders (e.g. anxiety and depression) and eating disorders than to suicide or behaviour problems. This is consistent with the findings of a recent systematic review of early interventions to prevent mental ill-health (Nicholas and Broadstock, 1999). As a result of this imbalance, intervention programmes which are aimed at the prevention of conduct disorders, such as problem behaviour or drug abuse, may well be more advanced in terms of likely programme effectiveness.

Secondly, although we found a number of studies which focused on young people from socially excluded groups, the majority of studies have targeted young people in general. As in other areas of health promotion research with young people, this tends to reinforce the assumption that they are a homogenous group and obscures the importance of tailoring interventions to the needs of specific groups according to differences in, for example, class, gender, ethnicity and social inclusion/exclusion (Moore and Kindness, 1998; Peersman, 1996).

Thirdly, there seems to be a relatively small number of interventions that aim to manipulate structural or socio-cultural factors. Most of the interventions targeted factors pertaining to the individual. Current UK health promotion policy expresses a clear commitment to tackling the material and structural factors impinging on people's health, but there would appear, at the present time, to be little evidence as to the most effective ways to do this. Some interesting differences emerged between the intervention and non-intervention studies in this respect. A larger proportion of UK non-intervention than intervention research focused on socially excluded groups. For example, whilst a number of studies investigated the mental health of unemployed young people, none of the intervention studies focused on this group. Furthermore, within the non-intervention studies there was a more even split between the proportion which targeted different barriers and facilitators (e.g. 'psychological', 'interpersonal', 'socio-cultural') whereas in the intervention studies the focus was much more towards psychological factors.

Fourthly, although our mapping exercise identified a number of systematic reviews of mental health promotion, some caution needs to be exercised in

accepting the conclusions of these reviews uncritically. Although the systematic reviews of effectiveness varied considerably in their mental health focus, several reviews have been carried out in very similar topic areas. Nine reviews looked across a broad range of mental health topics and four focused on suicide. Despite such similarities, there were huge differences between these reviews in the number of studies they identified. Although some of these differences could be accounted for in terms of the different time span of the reviews and the specific focus of each review (e.g. focus on 'early' interventions in one review, emphasis on suicide prevention in primary care in another) there was an enormous difference between the number of studies included in similar reviews. For example, Hodgson and Abassi (1995) and Tilford *et al.* (1997) both had a broad remit to focus on any intervention which aimed to promote any aspect of mental health or prevent any kind of mental illness (except psychotic disorders). They both focused on all age groups and both only included randomised or quasi-randomised controlled trials. However, the Tilford *et al.* review found 32 more studies than the Hodgson review.

Considering the large number of studies found in our mapping exercise, the comprehensiveness of the searches for these reviews is seriously called into question. For example, the Tilford *et al.* (1997) review, which had very similar inclusion and exclusion criteria to our mapping exercise, identified 10 studies focused specifically on young people. These were all trials published between 1984 and 1994. For the same period, our search strategies found 96 trials. This leads to the possibility that the conclusions and recommendations about promoting mental health drawn by Tilford *et al.* (1997) may have been different had they found more of the existing trials. A study by Peersman *et al.* (1999b) suggest that the methods used to conduct systematic reviews of effectiveness in health promotion do impact on their conclusions. They found that less sensitive searches (which identify a lower number of studies) reduces the possibility of reviewers being able to detect clear patterns for effective and ineffective interventions.

Fifthly, the methodological quality of the studies was variable. Only half of the outcome evaluations displayed characteristics which would enable them to generate potentially reliable results about the effectiveness of interventions. In addition, there was a significant lack of outcome evaluations found in the UK as compared to the USA. This is emerging as a consistent finding across a number of recent systematic reviews conducted in the UK of a variety of health promotion topics (e.g. Peersman *et al.*, 1996, 1998; Shepherd *et al.*, 1999). The fact that the majority of trials of health promotion and other public health initiatives are conducted in the USA is also a dominant finding in systematic reviews conducted in other countries. For example, Nicholas and Broadstock (1999), in a review funded by the New Zealand Health Technology Assessment Programme, found few evaluated interventions to promote mental health conducted in New Zealand and those that did exist were of poor methodological quality.

As with the intervention studies, the quality of reporting in the non-intervention studies was highly variable, especially with respect to reporting details of the sample used within the study. This has important implications for the generalisability of the findings from these studies.

Since the literature we accessed was all published in English, we do not know how our conclusions might differ had we been able to find and include

unpublished material, and had we had the resources to search for, and translate, studies written in other languages.

The mapping exercise presented a number of challenges.

The size of the literature

A great deal of time was spent screening the 11,638 abstracts identified through searches. Despite quite restrictive exclusion criteria, we were left with a large number of abstracts for which the full text was required before a decision regarding its inclusion/exclusion could be made. This necessitated extensive visits to libraries and requests for inter-library loans.

The difficulty of defining mental health

The distinction between positive mental health and prevention of mental ill-health was not always clear cut. For example, a study which was explicitly aiming to prevent depression but evaluated an intervention which was very much about fostering positive self-esteem or developing coping skills would have been classified as a study aiming to prevent depression. The way we classified studies according to their mental health focus was very much dependent on the way the authors described the context and the aims of their study. Thus, the distinction between whether a study was focused on mental ill-health or positive mental health may say more about authors' professional identities (e.g. being a clinical or a health psychologist) than any real distinction about what was being studied.

The breadth of mental health

The scope of the mapping was deliberately broad at the start of the review in order to avoid focusing solely on mental ill-health as a medically defined problem, for example, including problem behaviour that may more frequently be the remit of social services. As a result, we found we had to deal with literature from a wide range of professional disciplines, including medicine, psychology, social work, and education as well as health promotion.

The wide range of study methodologies covered within one exercise

Unlike many literature reviews, the mapping exercise described in this report included many different research designs and styles of reporting 'evidence'. A wide range of expertise had to be called on to develop the keywording strategy for this mapping and to apply it to the literature found. Little previous work exists to guide the development of methodological assessment of non-intervention studies in particular, and a framework had to be developed quickly which was able to distinguish in a valid and useful way between different study types and pertinent methodological attributes. Different study types required different sets of keywords, which increased the complexity of the process. The work described in this chapter of the report has thus been extremely valuable on a methodological as well as a substantive level, in that it has taken forward the challenge of classifying and assessing a wide range of research evidence.

The next two chapters of the report details the findings of the sub-set of studies which went on to be reviewed in-depth. How we got from this mapping stage to the in-depth is described in the first of these chapters.

4. IN-DEPTH REVIEW: METHODS

Outline of Chapter

This chapter describes the methods used in the in-depth review and the process used to select studies. It explains how the results of the mapping exercise were considered, together with suggestions made by the project's funding body and steering group to:

- ***prioritise the mental health focus** of the in-depth review (primary prevention of suicide and depression, promotion of self-esteem)*
- ***select the most appropriate study types** to include (high quality outcome evaluations, systematic reviews, studies examining young people's views).*

The inclusion criteria, data extraction and quality assessment methods specific to each study type are then described in turn.

The chapter will be of interest to:

- ***any readers** who want to evaluate in detail how this stage of the review was conducted in order to assess the reliability and validity of the reviews findings.*
- ***researchers or others** interested in how the results of a mapping and quality screening exercise can be applied within a systematic review, and of different study types which can be included in a systematic review.*
- ***policy specialists, practitioners and health care consumers** who may find section 4.1 of most interest since this describes how different sources/stakeholders had an input into defining the most appropriate and relevant literature to review in-depth.*

4.1 From mapping the literature to in-depth review: refining the scope

The mapping exercise identified areas of mental health in which there had been the greatest and the least amount of research activity. This provided ideas for the most appropriate topic areas and types of study to include in the in-depth review. We also took advice on how to focus the in-depth review from the EPPI-Centre's Steering Group and from the project's funders. We decided to choose the topic area of prevention of suicide/self-harm, as this represents one of the biggest bodies of literature identified by the mapping and is currently a policy priority area. However, solely focusing on suicide/self-harm might exclude studies covering their likely determinants; for example, some studies have shown a link between suicide/self-harm and depression. A further reason for extending the topic in this way is that there is a high incidence of depression amongst young people in the UK. Depression may be caused by low self-esteem or a poor coping skills. Thus we decided to include studies on depression, self-esteem and coping. Studies which had been classified as 'general mental health' were also considered to be relevant

if they addressed issues pertinent to the prevention of suicide/self-harm, and associated depression and self-esteem.

We also needed to make a decision about which study designs to include. This was also done in consultation with the Steering Group. We have included systematic reviews of the effectiveness of interventions aiming to prevent suicide/self-harm or depression and interventions aiming to promote, self-esteem and/or coping, which were of an appropriate methodological standard. In the interests of avoiding duplication of effort and managing resources effectively, it seemed sensible only to review in detail outcome evaluations which had not already been included in good quality reviews. This is a strategy used by other health promotion reviewers (NHS Centre for Reviews and Dissemination, 1996). A further decision was only to review those additional outcome evaluations which were judged potentially sound, that is, they included a control group, reported pre- and post-intervention data and, if not randomised, demonstrated equivalence between groups at pre-intervention. Other studies concerned with young people's views about mental health were also included in our in-depth review.

All the studies included in the in-depth review were about young people aged 11 to 21 years, the prevention of poor mental health or the promotion of positive mental health, and published in English. Non-intervention studies and process evaluations were restricted to UK studies.

The in-depth review thus considered:

a) systematic reviews, outcome and process evaluations focused on

- * suicide
- * self-harm
- * self-esteem
- * depression
- * coping
- * general mental health; and

b) systematic reviews, process evaluations and non-intervention research focused on young people's views.

The remainder of this chapter describes for each study type in turn the process of inclusion and exclusion of studies, data extraction and quality assessment.

4.2 Systematic reviews

Inclusion and exclusion criteria

In order to be included in the in-depth review, a review had to:-

(i) be about a topic which matched the revised inclusion criteria above (reviews of outcome/process evaluations focusing on the promotion of general mental health, coping, and/or self-esteem, or the prevention of depression and suicide and self-harm; reviews of non-intervention research had to have assessed the views of young people about mental health);

(ii) have described its inclusion criteria and search strategy, and based its recommendations wholly or partly on primary studies which had employed control or comparison groups ('minimum' criterion of methodological quality).

Data extraction and quality assessment

Data were extracted from included reports using a standardised template (available on request from the EPPI-Centre). Details abstracted included the nature and characteristics of the intervention, the target group, outcome measures (where relevant), and results.

The methodological attributes of each review were assessed according to the comprehensiveness of the sources used for literature searching; the criteria used to assess quality of primary studies; the application of quality assessment and inclusion criteria; and the methods used to analyse study data. Reviewers also added their own comments regarding the overall methodological characteristics of the review. This process was based on the criteria employed by the NHS Centre for Reviews and Dissemination for assessing studies included in the Database of Abstracts of Reviews of Effectiveness (DARE).

4.3 Outcome and process evaluations

The second type of research to be considered for in-depth review was evidence from outcome and/or process evaluations of interventions to improve young people's mental health. Outcome and process evaluations were assessed using inclusion criteria, data extraction, and quality assessment.

Inclusion and exclusion criteria

As with the systematic reviews, all available outcome and process evaluations were first assessed to determine if their main focus was self-esteem, depression, suicide or self-harm, or coping. During this process it was found that some of the studies relevant to the promotion of self-esteem were framed within a context not directly related to the prevention of suicide and self-harm. Some examined self-esteem specifically in relation to academic achievement, or investigated the link between self-esteem and drug use or crime. It was decided that a study which focused on self-esteem could only be included if it was framed within a relevant context. Studies examining self-esteem in the context of general mental well-being, or depression, or suicide were included.

A check was made of all included systematic reviews, to determine if any outcome evaluations had already been reviewed. Outcome evaluations were then screened using the methodological inclusion criteria for the in-depth review: use of a comparison or control group; reporting of pre-test and post-test data, and if a non-randomised trial, equivalent baseline measures.

All outcome evaluations meeting these criteria and not already reviewed in an included review went on to the data extraction and quality assessment phase of the review. The process evaluations which were 'attached' to these outcome evaluations also went on to the data extraction phase of the review.

Data extraction and quality assessment

A standardised data extraction framework was used, the EPPI-Centre's 'Review Guidelines' (Peersman *et al.*, 1997). These guidelines enabled reviewers to extract data on the development and content of the intervention evaluated, the design and results of the outcome evaluation, details of any integral process evaluation and data on the methodological quality of the outcome evaluation. Data were entered onto a specialised computer database (EPIC).

These procedures and the criteria used for assessing methodological quality are the same as those described in previous EPPI-Centre reviews (e.g. Oakley *et al.*, 1996; Peersman *et al.*, 1996; Peersman *et al.*, 1998), including our two early reports on the methodology of sexual health interventions (Oakley and Fullerton, 1995a, Oakley *et al.*, 1995b). Eight methodological qualities were looked for:

1. Clear definition of the *aims* of the intervention.
2. A description of the study design and content of the intervention sufficiently detailed to allow *replication*.
3. Use of *random allocation* to the different groups including to the control or comparison group(s).
4. Provision of data on *numbers of participants* recruited to each condition.
5. Provision of *pre-intervention data* for *all* individuals in each group. (An exception was made for those studies using the Solomon four-group design (Campbell and Stanley, 1966). In this design, intervention and control/comparison groups are further randomised to receive pre-intervention surveys or not. This means that the usual range of pre-intervention data is not available for half the participants in each group.)
6. Provision of *post-intervention data* for each group.
7. *Attrition* reported for each group.
8. *Findings reported for each outcome measure* indicated in the aims of the study.

Following the procedures used in other EPPI-Centre reviews, and building on other work (Loevinsohn 1990; Oakley and Fullerton 1995a; McDonald *et al.*, 1992), 'core' criteria from the above list were selected in order to divide the outcome evaluations into two broad groups: 'sound' and 'not sound'. 'Sound' outcome evaluations were those deemed to meet the four criteria of:

1. Employing a control/comparison group equivalent to the intervention group on socio-demographic and outcome variables.
2. Providing pre-intervention data for all individuals/groups as recruited into the evaluation.
3. Providing post-intervention data for all individuals/groups.

4. Reporting on all outcomes.

'Sound' outcome evaluations were considered to show sufficient methodological qualities to be able to generate potentially reliable results about the effectiveness of health promotion interventions.

4.4 Non-intervention studies examining young people's views

The third type of research to be considered for in-depth review were those studies aimed to elicit young people's own views about mental health. Knowledge of young people's own views is essential for the development of relevant, acceptable and potentially effective policies and practices aiming to promote their health/prevent ill-health, yet is often overlooked in favour of 'expert' views or research findings which have not been derived from gathering the views of young people themselves.

Inclusion and exclusion criteria

In order to be classified as reporting young people's views, a study had to: (i) examine young people's attitudes, opinions, beliefs, feelings, understanding or experiences, rather than their health status, behaviour or factual knowledge about mental health issues; (ii) access views about: young people's definitions of and/or ideas about mental health, their ideas about factors influencing their own or other young people's mental health and about ways of promoting this; (iii) privilege young people's views: studies had to present young people's views directly as data that are valuable and interesting in themselves, rather than as a route to generating variables to be tested in a predictive or causal model (e.g. measuring a range of attitudes or experiences to see whether/how these predict mental health status).

Studies published before 1990 were excluded in order to maximise the relevance of the review findings to current policy issues.

These inclusion and exclusion criteria differed from those for outcome evaluations and systematic reviews in that we did not restrict inclusion of studies according to their mental health focus.

Identification of additional reports

As already described in the chapters 2 and 3 of this report, a number of identifying studies for this review involved searching a number of different bibliographic sources, as well as using personal contacts. Despite this extensive search strategy, we found that we had only identified a handful of relevant studies. Although this may have reflected the paucity of available studies, we decided to make a special effort to try to locate more studies. We therefore asked all authors of the studies we had found so far whether they themselves had conducted other similar studies or whether they knew of other relevant studies. We contacted organisations involved in commissioning, undertaking or cataloguing research on young people (the Health Development Agency (HDA); Joseph Rowntree Foundation; Mental Health Foundation; Mentality; the National Children's Bureau; the Trust for the Study of Adolescence; Young Minds; and the Who Cares Trust). We also obtained

potentially relevant references cited in already identified reports and contacted key members of the EPPI-Centre Steering Group with a special interest in young people and health promotion. These contacts resulted in the identification of a number of additional studies.

Data extraction and quality assessment

All studies meeting the above inclusion criteria were examined in-depth. A standardised data extraction and quality assessment framework was used. This was adapted from the EPPI-Centre's review guidelines for assessing outcome and process evaluations. It was piloted in a previous EPPI-Centre review of peer-delivered health promotion for young people (Harden *et al.*, 1999a). The criteria proposed by four research groups to assess the validity and reliability of 'qualitative' research, presented in Oakley (2000), were 'amalgamated' based on their commonalities (Boulton *et al.*, 1996; Cobb and Hagemaster, 1987; Mays and Pope, 1995; Medical Sociology Group, 1996). These four sets of quality criteria were found to converge on seven 'themes' which related to the different stages of the research process: theoretical framework and or background to the study; formulation of aims or research questions; context of the research; the sample; methodology; analysis of data; and interpretation of data. For each of these seven themes the most commonly used criteria across the four sets was used.

These criteria were modified slightly for the current review. The 'analysis of data by more than one researcher' criterion, which aimed to provide an assessment of the reliability and validity of data analysis, was changed to a more general statement of whether any attempts had been made to establish the reliability/validity of data analysis. This was in recognition of the fact that there are many different ways in which researchers can attempt to establish the reliability and validity of data analysis within qualitative research.

Each study was thus assessed according to the following seven quality criteria:

(i) **Explicit account of theoretical framework and/ or inclusion of a literature review.** Did the report provide an explanation of, and justification for, the focus of the study and the methods used? This question was intended to assess whether the research had demonstrated how it was informed by, or linked to, an existing body of knowledge.

(ii) **Clearly stated aims and objectives:** Did the report explicitly and clearly state the aims of the study?

(iii) **A clear description of context:** Did the report adequately describe the specific circumstances under which the research was developed, carried out and completed?

(iv) **A clear description of sample:** Did the report provide adequate details of the sample used in the study including details of sampling and recruitment? This should include presentation of socio-demographic data and data on any other salient factors so that an assessment of who was included and excluded from the research could be made to aid interpretation and judgements about the validity and generalisability of the findings.

(v) ***A clear description of methodology, including data collection and data analysis methods:*** Did the report provide an adequate description of the methods used in the study including its overall research framework, methods used to collect data and methods of data analysis? This question assessed how the methods used shaped the findings of the study, again to aid interpretation and judgements about the validity and generalisability of findings.

(vi) ***Evidence of attempts made to establish the reliability and validity of data analysis:*** Researchers needed to show that some attempt had been made to assess the validity and reliability of the data analysis.

(vii) ***The inclusion of sufficient original data to mediate between data and interpretation:*** Did the report present sufficient data in the form of, for example, data tables, direct quotations from interviews or focus groups, or data from observations, to enable the reader to see that the results and conclusions were grounded in the data? Could a clear path be identified between the data and the interpretation and conclusions?

The 'quality' criteria were considered to represent the first step to generating a way of assessing the validity and reliability (or 'trustworthiness') of the results and conclusions of research which aims to answer questions other than effectiveness. Essentially they provide a framework which makes it possible to assess whether enough information has been provided in order to judge whether the framework of the study, context, sample, methodology, data analysis and data interpretation used within the research took into account or, at least, made explicit, any possible alternative explanations for the results shown and/or conclusion drawn. In this respect, the quality assessment of non-intervention research differs from the methodological quality assessment of the outcome evaluations that is also described in this report. The criteria applied to non-intervention research were **not** used to generate a sub-set of studies from which 'reliable' conclusions could be drawn. Rather, the aim was to provide the reader with a synthesis, within an explicit framework of methodological quality, of the findings of the studies examining young people's views and their implications for what they tell us about barriers to, and facilitators of, good mental health amongst young people and the development of interventions to promote young people's mental health.

5. IN-DEPTH REVIEW: RESULTS OF INTERVENTION STUDIES

Outline of Chapter

This chapter presents the results of the data extraction and critical appraisal of the intervention studies included in the in-depth review.

- *Section 5.1 considers the systematic reviews in terms of characteristics and methodology, and their substantive findings. Structured summaries describing the reviews are presented according to each topic.*
- *The findings from the outcome and their associated process evaluations follow in Section 5.2. Structured summaries according to each topic are presented on the sub-set of outcome evaluations considered to be methodologically sound*

This chapter will be of interest to:

- *practitioners, policy specialists, health care consumers and others who are interested in the ‘findings of the systematic reviews’ (section 5.1) and ‘which interventions are effective?’ (section 5.2).*
- *researchers who will find useful the description of the characteristics and methodological attributes of the included systematic reviews and outcome/process evaluations; the description of the methodology of the outcome/process evaluations will be of particular interest as it highlights the areas in which evaluation might be improved in future.*

Key Messages

- *Seven systematic reviews of effectiveness were included, each varying in scope, methods, and number of included studies. Four focused on a variety of mental health topics; one specifically on self-esteem; and two on suicide prevention.*
- *Conclusions of the reviews about the effectiveness of mental health promotion were mixed and sometimes contradictory. All reviews recommended more research of higher quality.*
- *Clearer conclusions were: insufficient evidence to recommend universal school-based suicide prevention (some have been shown to be harmful); primary prevention programmes can vary in their impact.*
- *One review concluded that interventions which focus specifically on promoting self-esteem have a greater impact than less focused interventions; another review concluded that self-esteem should be promoted through a ‘whole school approach’.*
- *Fourteen potentially high quality outcome evaluations were included. Five of these were judged to be methodologically sound. Two focused on self-esteem; two on depression; and one on suicide. Most were*

implemented in secondary education and all were based in the USA. They employed various types of intervention using multiple delivery methods.

- *Clearest findings were:
*a six week programme to teach young women how to recognise and restructure self-defeating thoughts was effective for improving knowledge about the technique.
* knowledge-based sessions of short duration were not effective in improving long-term depressive symptoms, risk factors, knowledge, attitudes or intentions.
* a suicide curriculum providing information about suicide and depression was not effective for knowledge stress, anxiety and hopelessness.*

Very few outcome evaluations conducted integral process evaluations. Young people were rarely consulted for their views on intervention development or impact.

5.1 Evidence from systematic reviews

As discussed in chapter 3, the mapping exercise identified 25 reports of potentially systematic reviews - 21 separate studies. Thirteen were reviews of effectiveness, and eight reviews of other types of research. Six reviews of effectiveness, and all the reviews of non-intervention research were excluded after applying the full inclusion criteria. Seven reviews remained to undergo full data extraction and critical appraisal. The excluded reviews of effectiveness were rejected on methodological grounds, mostly due to conclusions and recommendations not based on findings from controlled studies (Hattie *et al.*, 1997; Mazza, 1997; Scott and Warner, 1975; Walker and Townsend, 1998), no statement of search strategy (Hosman and Veltman, 1994; Mazza, 1997), or no inclusion criteria stated (Mazza, 1997). The reviews of non-intervention research were excluded because none of them examined the views of young people on perceived barriers to, and facilitators of, mental health (for details of what these reviews did do see chapter 3).

Characteristics and methodological attributes of the included systematic reviews

There was huge variability in the number of primary studies included in the reviews, from nine to 177 as table 19 shows. Four reviews looked at the promotion of mental health in general, two examined suicide prevention and one focused on interventions to promote self-efficacy and self-concept. Whilst all of the reviews considered young people, two were reviews of interventions targeting all ages, with specific sections for different age groups (Tilford *et al.*, 1997; Hodgson and Abassi 1995). Most of the interventions discussed in the reviews were delivered in the USA (data not shown in table).

Data analysis was mainly qualitative and findings were presented within conceptual or categorical frameworks. For example, Hodgson and Abassi, (1995) developed a framework of interventions applied within a developmental stage (e.g. school-based programmes targeting all young people of a given age), and interventions directed at children/young people considered to be at

high risk. In contrast, Nicholas and Broadstock (1999) presented their findings according to mental health topic areas (e.g. depression, eating disorders, violence prevention). Two reviews conducted meta-analysis (Durlak and Wells, 1997; Haney and Durlak, 1998).

Table 19: Characteristics of included systematic reviews of effectiveness (N=7)

	Target group	Type of intervention	Number of studies included	Publication dates of included studies	Data analysis
General mental health					
Durlak and Wells (1997)	Children and young people	Mostly in schools, varied content, methods and media	177*	up to 1997	Meta-analysis
Hodgson and Abassi (1995)	Young people	Varied content, methods and media. Inc. assertiveness, social skills, drug and alcohol education	40	Not stated	Narrative synthesis
Nicholas and Broadstock (1999)	Young people	Early intervention; varied content, methods and media	35	1995-1999	Narrative synthesis
Tilford <i>et al.</i> (1997)	General population	Varied content, methods and media	72**	1982-1994	Narrative synthesis
Self-esteem/self-concept					
Haney and Durlak (1998)	Children and young people	Varied content, methods and media	102	up to 1992	Meta-analysis
Suicide prevention					
Hider (1998)	Young people	Provided by primary care professionals in school settings	16	1988-1998	Narrative synthesis
Ploeg <i>et al.</i> (1996; 1999)	Young people	School-based, education and general coping skills training	9	1980-1995	Narrative synthesis

* Only 13% of these studies involved young people over the age of 1

**Only 10 studies included young people

Table 20 shows that the methodological quality of the systematic reviews was generally good. All stated their aims, search strategy, inclusion criteria, and provided directives for future research and practice. Only one study failed to provide any details about critical appraisal of primary studies, and

two did not state whether standardised data extraction had been used. Further details of the reviews' methodology can be found in Appendix B.

Table 20: Methodological attributes of the included systematic reviews of effectiveness (N=7)

Attribute	Stated	Not stated/unclear
Aims	7 (100%)	-
Search strategy	7 (100%)	-
Inclusion criteria	7 (100%)	-
Quality assessment	6 (85%)	1 (15%)
Standard data extraction	5 (70%)	2 (30%)
Future directives	7 (100%)	-

Findings of the systematic reviews

The evidence from systematic reviews regarding the effectiveness of mental health promotion is mixed. Some reviews came to very positive, yet vague conclusions, merely stating that mental health promotion can be efficacious. Others were more explicit in their findings and outlined specific components as being effective or ineffective, together with likely explanations.

Both Tilford *et al.* (1997) and Hodgson and Abassi (1995) concluded that, overall, mental health promotion interventions are effective. Similarly, Durlak and Wells (1997) found that most types of primary prevention interventions produced statistically significant benefits to young people, with their meta-analysis detecting medium to large effect sizes. However, Nicholas and Broadstock (1999) argued that mental health interventions are limited in their effectiveness, particularly in promoting behaviour change. They suggest that research into interventions aimed at preventing use of drugs and conduct disorders is more advanced than research into anxiety and eating disorders.

Interventions to promote positive self-esteem have been limited in their effectiveness. The meta-analysis by Haney and Durlak (1998) generated a modest effect size of 0.27 (values of 0.2 are considered small in size; about 0.5 are considered medium; about 0.8 are considered large). Interventions were more likely to be effective if self-esteem was the main focus, rather than if it was just one component of a broad mental health initiative. Sub-group analysis found that reported effectiveness was generally higher in randomised trials as compared with non-randomised studies, and interventions which used theory to guide their development generated larger effects than those that were not theory-based. The five studies included in the review by Tilford *et al.* (1997) had mixed results. Two detected no effect on self-esteem, whilst three identified moderate increases as a result of intervention.

The evidence for the prevention of suicide and self-harm was also limited. Most of the school-based studies reviewed by Ploeg *et al.* (1996; 1999) were rated methodologically weak to moderate. Positive effects on suicide

potential, depression, stress and anger were identified, but effects on knowledge and attitudes towards suicide were small. Furthermore, harmful effects were identified, particularly affecting young men. Similarly, Hider (1998) found that there were few controlled evaluations of school-based suicide prevention, particularly those provided by primary care practitioners. Again, harmful effects were reported, including the arousal of feelings of hopelessness and legitimisation of suicide as a solution to problems. Current evidence does not support universal school-based suicide prevention programmes, except possibly for high risk groups when health professionals are involved.

The results of the systematic reviews are presented in greater detail below.

General mental health

A meta-analysis of primary prevention programmes for children and young people was conducted by **Durlak and Wells (1997)**. One hundred and seventy seven studies were included, most of which were RCTs. A further 50 were added in a later update (**Durlak, 1998**) but were not subjected to meta-analysis. Most studies were conducted in schools, followed by hospital settings, and were delivered by mental health professionals. Around half the interventions were very broad. The mean age of participants was nine years, with only 13% of studies involving young people over the age of 13. The average follow-up period for outcome measurement was 47 weeks. Mean effect sizes were calculated and weighted, and results presented according to three main categories: 'environment centred interventions' (e.g. in schools), 'transition programs' (e.g. school entry), and 'person-centred programs' (e.g. interpersonal problem-solving).

Most types of primary prevention programmes were described as having statistically significant positive effects on a range of mental health outcomes, with mean effect sizes ranging from 0.24 to 0.93. Most interventions significantly reduced problems (e.g. anxiety, depression), significantly increased competencies (e.g. social skills), and affected functioning in multiple adjustment domains (e.g. internal and external symptoms, academic achievements, cognitive processes). The authors conclude that on average, the participants in primary prevention programmes surpasses the performance of 59 to 82% of those in a control group.

The 15 'environment centred interventions' in school settings were associated with a mean effect size of 0.35. These were generally studies which aimed to modify the psychosocial aspects of the classroom by promoting supportive relationships between students and teachers, social skill development, and young people's cognitive development and behavioural adjustment. For example, teacher training to encourage supportive and reinforcing contacts between teachers and students was effective in reducing aggressive behaviour in boys and self-destructive behaviour in girls (Hawkins *et al.*, 1991). A high school intervention to modify classroom curricula, student ability, and teacher-student relationships and to promote parental involvement in school activities produced benefits in terms of scholastic achievement, absenteeism, and school drop-out. A school wide intervention at teacher, administrator, mental health professional and parental level was effective at reducing serious behaviour problems, and improving students' sense of personal competence (Comer, 1985).

Environment centred programmes which involved parent training (n=10) were less effective (Effect Size=0.16). These included initiatives to 'educate' parents about child development.

All the 'transition programs' were associated with significant positive outcomes. The five interventions providing support to young first time mothers were effective (mean Effect Size=0.87), as were the 26 interventions addressing anxiety associated with medical and dental procedures (mean Effect Size=0.46). The seven interventions focusing on helping children and young people through a period of parental divorce (mostly brief group based interventions) were less effective (mean Effect Size=0.36). Programmes to help young people during school entry (n=8) had a similar level of effectiveness (mean Effect Size=0.39).

The 'person centred strategies' were categorised as studies examining affective education (to increase children's awareness and expression of feelings, n=46), and interpersonal problem-solving (n=18). Affective education and problem-solving programmes were more effective with younger children aged 2 to 7 years than older students aged 7 to 11 years. The remaining person centred strategies (n=42) comprised a diverse range of interventions including assertiveness training, modification of irrational beliefs and enhancement of self-esteem. These were sub-divided into studies employing behavioural techniques (modelling, role-playing, feedback and reinforcement, n=26) and non-behavioural techniques (counselling, discussion, n=16). The former were significantly more effective than the latter (mean Effect Size=0.49 and 0.25 respectively).

This review made good use of unpublished material, including dissertation abstracts. The main shortcomings were that primary studies were not subjected to critical appraisal, and the rationale was not described for the conceptual categories used to present the results.

General mental health promotion was the focus of the review by **Hodgson and Abassi (1995)** also published in **Hodgson et al. (1996)**. The review covered interventions applicable to the general population, with a section dealing with initiatives aimed at young people. These were sub-classified into 'effective programmes applied universally within a developmental stage' (e.g. all young people of a particular age; n=8), and 'programmes directed at school age children within high risk groups' (e.g. children of divorced parents; n=4). Content of the interventions was mixed, including social skill development, assertiveness, drug and alcohol prevention, and bereavement. Most of the programmes were conducted in the USA.

The assertiveness training programme (Rotherham *et al.*, 1982) implemented in California was effective at improving social competence, whilst the Seattle Social Development Project (Hawkins *et al.*, 1992) delivered in a classroom setting (with parental involvement at home) included elements of an interpersonal cognitive problem-solving approach, and was associated with less delinquent behaviour, alcohol use and greater family involvement. Another US study, the 10 week Positive Youth Development Programme (Caplan *et al.*, 1992), was effective for conflict resolution skills, and lower rates of self reported alcohol use. A social skills training intervention was evaluated with children (aged 11 years) who had low peer acceptance and 'deficient' conversation skills (Bierman, 1986). The

intervention, combined elements of role-playing and social skills training, and was found to be effective at improving peer responsiveness and conversational skills. Sandler *et al.*, (1992) reported that a family bereavement intervention as effective for reducing children's depression and conduct disorder. An intervention to help children of divorced parents was effective for reducing learning problems, shyness, and social competence (Pedro-Carroll *et al.*, 1986).

Several of the studies reviewed aimed to prevent use of drugs and alcohol through use of education (Ellickson and Bell, 1990; Hansen and Graham, 1991) and through education combined with skills training in social influence resistance (Pentz *et al.*, 1989). These were generally associated with reductions in substance use, in one case sustained up to two years.

The overall conclusion of the review was that mental health promotion interventions can be effective and that intervention provided between the ages of 6 to 16 can enhance coping with negative feelings, the development of social skills and good peer relationships. However, it is difficult to put the results of this review into context, as information was not provided on the studies which were rejected on grounds of quality or ineffectiveness. Only studies with demonstrated effectiveness were included; the magnitude and characteristics of ineffective interventions are unknown. The authors report only limited details regarding methodological attributes, such as the application of inclusion criteria and assessment of primary studies.

Nicholas and Broadstock (1999) conducted a review of early interventions for preventing mental illness in young people, as a report for the New Zealand Health Technology Assessment Programme. As with the Hodgson review described above, the interventions varied greatly in duration, content and methods.

Of the three studies included of young people at high risk for depression, two were methodologically weak. The strongest study suggested that classroom-based skills development interventions can be effective. A Swedish community-wide public health intervention provided activities to reduce depression, suicidal thoughts, bullying, and drug and alcohol use and to increase satisfaction with school and life. Greater benefits were identified in the community which received these activities, in comparison to communities which did not (Berg-Kelly *et al.*, 1997). An eight session school-based coping skills group intervention decreased depressive symptoms in both the study and control groups, although the effects were most pronounced for females in the study group (Lamb *et al.*, 1998).

Four studies in this review were classed as focusing on mental health in general. The interventions were described by the reviewers as disparate and limited in their effectiveness. A group based intervention on communication and social skills used peer counselling of 14 to 17 year olds with an on-going physical health condition. The intervention was spread over 12 90-minute sessions, and was reported as improving self-esteem and mental health status (Bauman *et al.*, 1997), with effects sustained at 18 month follow-up. An outdoor community based intervention to develop social skills, self-esteem, and family functioning in low and medium risk juvenile offenders improved personal goals, self-esteem and coping skills, and decreased anti-social behaviour, although this effect disappeared after two years

(Deschenes and Greenwood, 1998). Lamothe *et al.*, (1995) found that a social support group intervention improved social support and adjustment to university life in university students aged 17-20 years (although one of the groups was dropped from the analysis for poor attendance).

The authors of the review suggested that intervention before mental health complications arise is more advanced in the areas of substance abuse and conduct disorders, than for mood, anxiety and eating disorders.

The general conclusion of this review was that mental health interventions are limited in their effectiveness, particularly in promoting behaviour change. However, it is not clear whether this is due to a lack of good quality studies (particularly with adequate follow-up), and/or because modest improvements would be expected from young people who are in relatively good mental health. Without long term follow-up it is not possible to fully assess the effects of early intervention. Although this was a comprehensive review in terms of methodology, only studies published within a narrow time frame were included.

In a review for the UK Health Education Authority, **Tilford *et al.* (1997)** assessed mental health promotion interventions for the general population. The review included interventions in educational and community settings but excluded those provided as part of mental health specialist services (e.g. by clinical and educational psychologists).

Ten studies focusing on young people were included, at least seven of which addressed self-esteem and self-concept. School health education for substance abuse, self-esteem and stress intervention (Bonagurao *et al.*, 1988) had no apparent influence on health behaviours, esteem and stress. The 'Personal Empowerment Program' (Fertman and Chubb, 1992) also detected no significant differences between groups in self-esteem, or locus of control. Modest increases in self-esteem were detected by the 'Teen Parenting Program' (Marshall *et al.*, 1991), a cognitive stress reduction programme (Hains and Szyjakowski, 1990) and an aerobic exercise during pregnancy intervention (Koniak-Griffin, 1994). Malgady *et al.* (1990) evaluated a role modelling intervention for young Puerto Ricans, which was partially effective for improving self-concept. An Australian outward bound training intervention was effective for self-concept and locus of control (Marsh *et al.*, 1986).

One school-based study focused on coping with distress and self-harm was found to be effective at reducing suicide potential (Klingman and Hochdorf, 1993). This 12 week programme, based on a three phase intervention model of education and training, was also effective for increasing knowledge of suicide and of available sources of help.

The authors of the review concluded that the self-concept and self-esteem needs of young people should be met through the whole curriculum as well as through specialist activities in personal, social and health education.

Self-esteem

The review by **Haney and Durlak (1998)** considered studies whose main focus was the promotion of self-esteem and self-concept. Interventions

aiming to treat the mental health sequelae of poor self-esteem were also included. The review encompassed studies with a more general scope, so long as these had a component dealing with self-esteem and self-concept. Whilst self-esteem and self-concept were the primary outcome measures, other outcomes (e.g. overt behaviour, personality functioning and academic performance) were also covered. A total of 102 studies (120 interventions) published prior to 1992 were included, summarised quantitatively with the calculation of mean effect sizes. The interventions varied in structure and media, ranging from affective education to social skills training. The duration of the interventions varied from one to 95 sessions (average=16 sessions), and approximately half were school-based.

The weighted mean effect size for all interventions was 0.27: a 'modest' impact on self-esteem and self-concept. Average effect sizes were significantly higher for studies which had self-esteem/self-concept as their main focus. Non-randomised studies yielded lower effects, whilst interventions based on a specific theory yielded higher effects than those based on researcher-generated hypotheses or with no stated rationale.

This review suggests that interventions with a primary focus on promoting self-esteem and self-concept are more effective than broader, more general interventions.

Suicide prevention

Youth suicide prevention interventions by primary healthcare professionals were the subject of the review by **Hider (1998)** for the New Zealand Health Technology Assessment Programme. Outcomes included suicide, attempted suicide or suicide ideation. The review included 300 primary studies covering prevention and treatment and non-intervention research. Despite the focus on primary care, some of the studies were conducted in schools by school personnel, GPs or nurses. Data were analysed qualitatively, in terms of conclusions and specific strengths and weaknesses.

The review found few controlled evaluations of school-based suicide prevention. Those provided by school personnel did not achieve consistent improvement in young people's attitudes towards suicide. Some harmful effects were reported, including the arousal of feelings of hopelessness, and acceptance of suicide as a potential solution to problems. Very few studies have evaluated impact on actual suicide behaviour and ideation. Results have shown ineffectiveness or contradictory outcomes.

A number of school-based interventions were included in the review. A programme consisting of skill building sessions targeting children of divorced parents improved adjustment, behaviour and reduced anxiety (Pedro-Carroll *et al.*, 1985). An intervention based on cognitive behaviour therapy showed significant improvements in children at risk of depression (Gilham *et al.*, 1995; Jaycox *et al.*, 1994). Kahn *et al.* (1990) found that school-based cognitive behaviour therapy and relaxation therapy significantly improved depressive symptoms. The provision of family support, skills training and referrals targeting children of divorced parents reduced anxiety and depression (Pless *et al.* 1994). In the study by Ellickson and McGuigan, (1993) an intervention targeting youth at risk of substance abuse reduced drug use initially but the effect disappeared at 6 year follow-up. The

intervention by Emshoff (1989), aimed at children of substance abusers, improved coping and social skills. A suicide prevention intervention which involved training the parents of young people with behaviour problems lowered rates of conduct problems (Strayhorn and Weidman, 1991).

The authors of the review concluded that there is insufficient evidence to recommend universal school-based, suicide prevention programmes except when these have involve health professionals and/or are applied to high risk groups and/or high risk behaviour.

Ploeg *et al.* (1996; 1999) reviewed the literature on school-based suicide prevention programmes as part of the Ontario Effective Public Health Practice Project. Outcomes included knowledge, attitudes and intentions towards suicide, mental health status, and health risk behaviours. The interventions included were broadly classed as education and general coping skills training, provided by teachers, counsellors and social workers. Nine studies were included, seven of which were conducted in the US. Studies were analysed qualitatively according to outcomes.

Beneficial effects were detected for suicide potential, depression, perceived stress, and anger, but limited effects were found for knowledge and attitudes and some harmful effects were identified. Young men were more likely than young women to experience harmful effects.

A series of small group discussion classes on effective coping and mental health increased the number of students telling adults about a suicidal peer, and the use of 'suicide vignettes' led to young women expressing greater concern about the situation than young men (Kalafat and Gagliano, 1996). A series of student workshops on inner experiences and, life difficulties related to suicide and coping led to significantly decreased suicidal tendencies and improved coping, but not to reduced hopelessness (Orbach and Bar-Joseph, 1993). Another intervention consisting of information and discussion about suicide improved attitudes about suicide, and increased the likelihood of students telling someone else about a suicidal peer, using mental health services and talking to others but did not decrease the number of students using suicide as a possible solution for (Ciffone, 1993). An intervention focusing on suicide-related knowledge and coping skills significantly improved such knowledge, reduced hopelessness, improved suicide attitudes, and reduced 'maladaptive' coping for young women but increased hopelessness, maladaptive coping and worsened suicide attitudes for young men (Overholser *et al.*, 1989). A series of classes emphasizing suicidal symptoms, support networks and problem solving showed some effectiveness in improving knowledge and attitudes about suicide, sources of help, and likelihood of help-seeking behaviours but no difference in the incidence of suicide attempts (Shaffer *et al.*, 1990; 1991; Vieland *et al.*, 1991).

The authors of this review concluded that, overall, there is insufficient evidence to support school-based curriculum prevention programmes for young people. They suggested that narrowly focused interventions may be less effective than comprehensive, multi-strategy programmes addressing high risk behaviour. It should be noted that interventions were only included if they fell within the scope of public health practice in Canada, so its findings in this review may not be generalisable to other countries.

5.2 Evidence from outcome and process evaluations

A total of 47 outcome evaluations fell within the scope of our in-depth review. These focused on suicide, depression, self-esteem or coping. Thus of the 47, 30 met our methodological inclusion criteria (comparison or control group, pre- and post- test data reported, and for non-randomised trials, baseline measures equivalent), and were deemed to be potentially sound. Since, 16 of these had already been included in one or more of the good quality systematic reviews these were not assessed further (Appendix C lists these 16 outcome evaluations according to the reviews in which they were included). The remaining 14 'potentially sound' outcome evaluations went on to be fully reviewed.

Characteristics of included outcome evaluations

All 14 outcome evaluations were published in peer reviewed journals. Most (86%) were published after 1990. A total of 12 (85%) of these studies were conducted in the USA; the remaining two were carried out in Canada and Israel. The 14 studies focused on different aspects of mental health. Table 21 shows the mental health focus, intervention setting, provider and the type of interventions evaluated. All the studies were of young people ranging in ages from 11 to 21, although a small number of studies also included children and adults in a family therapy situation, undergraduate students aged over 21, and participants aged over 21.

Table 21 shows the mental health focus, the setting in which the interventions was implemented and who provided the intervention for the outcome evaluations. As each intervention could have more than one setting and provider, the outcome evaluations covered a total of 16 settings and 20 providers. Most interventions aimed to improve self-esteem or develop coping skills, and were implemented in educational settings. A range of providers delivered the interventions: teachers or lecturers were the most popular followed by community workers, counsellors, and psychologists. Two of the studies employed a self-implemented intervention in the form of workbooks or diaries.

The most frequently employed type of intervention were information or education and practical skill development (not shown in table). Studies could employ more than one type of intervention. For example, advice or counselling might be used in combination with information provision.

Only three (21%) of the interventions focused on specific groups of young people (not shown in table). Philpot and Bamburg (1996) conducted their study with a group of undergraduates who scored low in self-esteem. The focus of a study by Felner *et al.* (1993) was to improve the transition for young people from middle to junior high school. LaFromboise and Howard Pitney (1995) evaluated a suicide prevention programme targeting Native Americans from the Zuni community. The remaining 11 outcome evaluations (79%) were directed toward young people in general.

Table 21: Mental health focus (N=14), intervention setting (N=16) and intervention provider (N=20) in mental health promotion outcome evaluations: All outcome evaluations (N=14)

Mental Health Focus (N=14)	N	%
Self-esteem	5	35
Coping	4	28
Depression	3	21
Suicide	2	14
Intervention Setting (N=16)	N	%
Community	3	19
Primary education	1	6
Secondary education	8	50
Tertiary education	1	6
Home	1	6
Not stated	2	13
Intervention Provider (N=20)	N	%
Teacher / lecture	7	35
Community worker	2	10
Counsellor	2	10
Psychologist	2	10
Community (adult volunteer)	1	5
Peer	1	5
Researcher	1	5
Social worker	1	5
Not stated	3	15

Development of mental health promotion interventions and their evaluations

When examining the reasons why interventions are effective or ineffective, it is important to look at how they were developed; why certain interventions were chosen to be implemented and, how and why the content and delivery method were selected. Mental health promotion interventions can be developed in response to 'comparative' need (need determined from examining services provided to one population and inferring need in another), 'expressed' need (need determined by examining a population's use of services), 'felt' need (need identified by the population or others), or 'normative' need (need determined by experts in the topic of interest). The rationale for an intervention in this group of studies was most often 'normative' need (n=11).

Interventions based on input from the young people or others (such as parents or community leaders), occurred in two studies. Carty (1991) identified a group of young people who met with a local theologian and psychologist to discuss young people's needs in the community. In the study by LaFromboise and Howard Pitney (1995), community leaders identified a need to intervene in response to the high suicide rate among Native American young people. One intervention was based on 'comparative' need. Teaching relaxation response appeared to be a successful intervention in adults and was therefore evaluated in young people (Benson *et al.*, 1994). Finally, two outcome evaluations were not based on needs assessment, but rather on the rationale that no previous research existed on the topic (Sandor *et al.*, 1994; Bredehoft and Hey, 1985).

Interventions were piloted in five of the 14 studies. Three of these were piloted with samples of young people (Beardslee *et al.*, 1997; Bredehoft and Hey, 1985; Walker *et al.*, 1994). Two outcome evaluations were piloted with students identified as high risk (Felner *et al.*, 1993), and with Grade 11 students during the previous academic year (LaFromboise and Howard Pitney, 1995).

Table 22 shows those involved in the development of the interventions.

Table 22. Persons involved in intervention development (N=17): All outcome evaluations (N=14)

Persons involved in intervention development	N	%
Evaluator	6	35
Other (community members or organisation, study author)	4	24
Young people	1	6
Intervention provider	1	6
Not stated	5	29

As interventions could be developed by more than one group of people, the outcome evaluations covered 17 intervention developers. About a third of the interventions were developed by the evaluators alone (35%). Young people were involved in only one of the studies (Carty, 1991). Around a quarter of those involved were neither the evaluators nor the young people (24%). These others were described as the authors (Bredehoft and Hey, 1985), a local theologian and psychologist (Carty, 1991), community leaders (LaFromboise and Howard Pitney, 1995), and a School District (Silbert and Berry, 1991). One study (Bredehoft and Hey, 1985), involved parents in the development of the intervention, as they were to receive the intervention in conjunction with young people. In one study the intervention provider, church youth leaders, helped to develop the intervention (Sandor *et al.*, 1994).

Almost two thirds of the outcome evaluations (n=9, 64%) did not indicate who determined the processes and outcomes to be evaluated. Processes were evaluated in eight (57%) of the 14 studies. Two studies looked at the acceptability of the intervention (Benson *et al.*, 1994; Beardslee *et al.*, 1997). Five studies evaluated implementation of the intervention (Walker *et al.*, 1994; Silbert and Berry, 1991; Beardslee *et al.*, 1997; LaFromboise and Howard Pitney, 1995 Clarke *et al.*, 1993). Haldeman and Baker (1992) examined the confidence of participants in the programme before participation. Barriers to, and facilitators of, developing or delivering the intervention were rarely identified. Only two

studies (14%) mentioned specific barriers, including cultural taboos of suicide (LaFromboise and Howard Pitney, 1995) and the unexpected suicide of a participant (Sandor *et al.*, 1994). Facilitators were mentioned in two of the studies (14%), and included low cost, greater teacher job satisfaction, minimal disruption to host setting (Felner *et al.*, 1993), and involving the community in intervention development (LaFromboise and Howard Pitney, 1995).

The use of theoretical models to guide intervention development varied. Use of any theoretical model was undescribed or unclear in nine of the 14 included studies (64%). The remaining studies used a combination of cognitive (28%), ecological (7%), psychodynamic (7%) and social learning theories (7%). Cognitive theory emphasises the causal role of cognition in the development of behaviour, including problem behaviour. Ecological models focus attention on the influence of social factors, such as external stressors (e.g. poverty, life events), societal values, and developmental factors. Psychodynamic theory stresses the importance of early life experiences on the development of personality. Social learning theory combines respondent, operant and cognitive and observational learning to assert that human beings do not respond to stimuli, but interpret them. The key intervention derived from this theory is modelling (e.g. skills training).

Methodological quality of the included outcome evaluations

A final stage is to assess the quality of the outcome evaluations used to assess intervention effectiveness. Table 23 shows the data from this quality assessment. Nearly all studies (93%) reported numbers assigned to intervention and control groups and described the impact of the intervention for all outcomes (86%) as defined in the aims of the study. Aims were clearly stated in a majority (78%) of the studies. Over half of the studies (64%) stated random allocation of participants to treatment and control conditions, provided post-intervention data on outcomes (64%), and described the intervention and evaluation in enough detail for it to be replicable (64%). Only about a third of the included studies described the attrition of participants from the study (36%) or equivalence of intervention and control groups (29%). About a fifth provided pre-intervention data (21%).

Table 23. Number and proportion of included outcome evaluations: All outcome evaluations (N=14)

Methodological quality	N	%
Numbers assigned to treatment and control groups reported	13	93
Impact of intervention reported for all outcomes	12	86
Aims clearly stated	11	78
Random allocation	9	64
Intervention and evaluation described enough to be replicable	9	64
Post-intervention data reported	9	64
Attrition rates reported	5	36
Equivalent control or comparison group	4	29
Pre-intervention data reported	3	21

As noted earlier, there were four criteria for classifying a study as 'sound'. These are highlighted in table 23. Five of the fourteen studies were deemed methodologically sound (Bredehoft and Hey, 1985; Clarke *et al.*, 1993, which described two outcome evaluations; Haldeman and Baker, 1992; and Silbert and Berry, 1991). The remaining nine outcome evaluations were not judged to be sound because of non-equivalence of treatment and control groups/lack of description of equivalence (N=9, 100%), or because pre-intervention data were not reported for all participants (n=7, 78%).

Part of our reviewing process consisted of comparing the claims to effectiveness made by the authors of outcome evaluations with those derived from the review process, bearing in mind the need for methodological soundness as a base for establishing effectiveness. Table 24 shows authors' assessments of the effect of interventions according to reviewers' judgments of methodological quality. This table shows that authors' conclusions about effect were unreliable for 80% of the interventions claimed to be effective and 71% of the interventions claimed to be partly effective (i.e. effective for some outcomes/some groups, ineffective for others). No interventions were judged to be harmful.

Table 24. Authors' assessment of intervention effectiveness compared to reviewers' judgement of methodological quality: All outcome evaluations (N=14)

Authors' assessment of the effect of interventions N(%)	Reviewers' judgement on methodological quality of the outcome evaluation		
	Sound	Not sound	Total
Effective	1 (20%)	4 (80%)	5 (100%)
Partly effective (effective for some outcomes, ineffective for others)	2 (29%)	5 (71%)	7 (100%)
Ineffective	2 (100%)	0 (0%)	2 (100%)

Measurement of outcomes some time after the intervention can provide an indication of the ability of the intervention to maintain desired changes in behaviour, or health status, or proxy measures, such as knowledge, over time. Outcomes were measured immediately after the intervention in six (43%) of the 14 studies. Follow-up evaluation of outcomes was most often conducted fairly soon after the intervention, with six studies (43%) listing measurement up to three months, and three studies (21%) listing measurement between three and six months. Only one study (7%) measured outcomes at between six and 12 months; in one study (7%) this took place between one and two years.

Which interventions are effective?

All five sound studies were trials; four were RCTs. No clear pattern emerges for effectiveness based on the type of mental health promotion focus, the type of intervention provided or the person providing the intervention.

The following section describes the five sound outcome evaluations. (See Appendices D and E for more details.)

Descriptions of sound outcome evaluations (N=5)

Two of the five studies focused on promoting self-esteem, two studies aimed to prevent depression and one study was about suicide prevention. Secondary education was the setting for four of the five sound studies. The setting for one study was not described. Teachers or lecturers were the intervention providers in three studies. One study used teachers and a ‘trained facilitator’. Interventions were provided by a counsellor and a psychologist in the remaining two studies. For each sound study, a variety of intervention types were employed, using multiple methods of delivery, as listed in table 25.

No study used one intervention type alone, nor did evaluators use just one method of delivering the intervention. This may explain the variable effectiveness cited for each intervention. Different combinations of interventions may have differing effectiveness.

Table 25: Intervention type and medium: All sound outcome evaluations (N=5)

Intervention types	Bredehoft	Clarke 1	Clarke 2	Haldeman	Silbert
Advice/counselling				✓	
Increased access to resources					✓
Increased access to services		✓		✓	
Information / education	✓	✓	✓	✓	✓
Parent training	✓		✓		
Practical skill development	✓		✓	✓	
Total number of intervention types	3	2	3	4	2
Intervention delivery methods	Bredehoft	Clarke 1	Clarke 2	Haldeman	Silbert
Discussion group	✓	✓	✓		✓
Practising practical skill	✓		✓	✓	
Presentation / lecture	✓	✓	✓		✓
Printed materials				✓	✓
Role-play				✓	
Theatre / film / video / slides		✓	✓		✓
Total number of delivery methods	3	3	4	3	4

Self-esteem

Two studies evaluated interventions to improve self-esteem in young people. One intervention was directed at improving self-esteem in young people and their parents, and the other targeted self-esteem improvement in young women.

Bredehoft and Hey (1985) evaluated an intervention directed at young people aged 11 to 19 and their parents. This was designed to teach and improve self-esteem, family cohesion and flexibility, and conflict resolution within families. The authors described considerable input from many parents over the four year development of this intervention. Volunteer families were randomly allocated to the intervention group, or to a control group which received no intervention. Participating parents were described as being 'highly educated, holding professional occupations, and from an upper income bracket' (Bredehoft and Hey, 1985:413). Groups were reported as being equivalent on measures of socioeconomic status. The researcher who was a psychologist and a trained facilitator provided parents and young people with information and skill development training during eight two-hour structured course curriculum sessions presented twice weekly.

The intervention consisted of information provision and training and used discussion group sessions, presentations and practice sessions. It had a number of goals: to build positive self-esteem through modelling; to help each other to give positive, clear messages; to respond constructively to criticism; to accept responsibility for own self-esteem by making needs known; and to offer encouragement to children at different ages. Individuals within families were assessed prior to the intervention or control condition and immediately afterward, on measures of knowledge (recognition of family conflict), self-concept, and family adaptability and family cohesion.

The authors concluded that the intervention was effective for mothers' recognition of family conflict and amount of empathy and lower amount of dissonance with their husbands, and that young people in the intervention group perceived less family dissonance and less dissonance with fathers than young people in the control group. It was ineffective at changing self-concept, but effective for fathers' perceptions of family adaptability and cohesion. Reviewers concluded that the evaluation showed no effect of the intervention on self-concept, and was unclear in its effect on knowledge and family cohesion and adaptability.

In this study, recruitment was not described other than to indicate that participants were volunteer families. Incomplete information provided on those who dropped out makes it impossible to know if those families differed systematically from the families remaining in the study. In addition, the intervention aimed to improve self-esteem within families, yet this was not measured as an outcome.

Haldeman and Baker (1992) evaluated a programme designed to improve self-esteem through cognitive self-instruction training in young women aged 16 - 19 at a private boarding school in rural Pennsylvania. All juniors and seniors at the school were informed of the study, and those who volunteered were randomly allocated to receive either the intervention or a control condition.

The intervention consisted of six weekly 45 minute session. Participants were provided with information about how to recognise self-defeating thoughts and

restructure these into self-improving and self-reinforcing thoughts. These skills were practised using role play. An experienced counsellor used an instructional booklet 'Think it Right' as the reading material and group counselling for the sessions. Participants were encouraged to self-refer for further private counselling. The control condition received the same instructional booklet and were given sections as homework assignments. Control condition participants were also informed of the availability of private counselling and were encouraged to refer themselves as the need arose.

Process evaluation of the intervention was carried out by pre-tested self-administered instruments evaluating participant confidence in the treatment condition and confidence in the programme prior to participation. Outcome evaluation used non-validated tests of participant knowledge about cognitive self-instruction and simple counts of the number of new self-referrals to the counsellor for individual counselling sessions.

Socio-demographic information was provided for the study population in general. Pre-test analysis of groups showed that groups were equivalent on measures of knowledge about cognitive self-instruction. Process evaluation results indicate that participants had similar expectations of their respective programmes, indicating no expectation bias on the part of intervention group participants. Confidence in the treatment received was significantly higher for participants in the intervention. Intervention participants were also significantly higher on measures of knowledge of cognitive self-instruction. Four intervention participants self-referred for further counselling. Reviewers concluded that the intervention was effective for knowledge.

This was a short term intervention intended to prepare young people to cope with situations which may trigger irrational thoughts and to enable them to self-refer to individual counselling. The extent to which practical skills were fully developed was not evaluated. Rather, basic knowledge regarding irrational beliefs, and how to recognise these, were used as the key outcomes.

Depression

The two sound studies relating to prevention of depression were published by **Clarke et al. (1993)**. Both studies were conducted in secondary education settings, with young people aged 14 to 16. One study (Study 1) employed an educational intervention, while the other (Study 2) used a preventive behavioural skills training approach.

In Study 1, the aim was to provide a low-intensity primary prevention intervention for depression symptoms. The intervention was not based on any specific theoretical framework, nor was the target group involved in implementing or evaluating it. All ninth and 10th grade young people enrolled in mandatory health classes in two suburban high schools and one middle school who consented to participate were randomly assigned by class to receive either the intervention or the control condition. Groups were tested to be equivalent with respect to all socio-demographic factors, except for age, which was adjusted for in the analysis. Analysis was appropriate for a cluster RCT design.

Participants in the intervention condition received three 50 minute primary prevention health classes, which provided information about the symptoms, causes, and treatments of depression using lectures, group discussion and

videotapes. Participants were also encouraged to seek treatment when appropriate. The intervention was provided by health class teachers who were given two hours of training in administration of the curriculum, and were provided with scripted curriculum materials. Participants in the control condition received the usual health class curriculum at the same time. Authors repeated that this usual curriculum did not cover mental health issues. Assessment of the class curriculum indicated no overlap in depressive disorder or other mental health content, although no data are reported on this measurement. All study participants were administered a standardised self-completion questionnaire at the beginning of the first class, at the end of the third class, and 12 weeks later.

Results led the authors to conclude that, while this intervention did lower depressive symptoms in young men at the first post-test, the effect was lost by the second post-test. The authors suggest that the lack of sustained effect is consistent with the findings of other research evaluating similar brief interventions result in similar negligible effects. There was no apparent impact of the intervention on young women, on participants' attitudes to depression, knowledge about depression symptoms or self-referrals for treatment. They conclude there is a need for an intervention of longer duration which emphasises appropriate skill training; hence the implementation of Study 2. The reviewers of Study 1 judged the intervention to be partly effective, in that it reduced depressive symptomatology in young men at the first post-test measurement.

Study 2 aimed to increase rates of pleasant activities in order to prevent or reduce the onset of depressive mood in ninth and tenth grade young people aged 14 to 16 from the same schools recruited in Study 1. There was no overlap in samples across Studies 1 and 2. Again, students were randomly allocated by health class to receive either the treatment or control condition. Groups were equivalent on socio-demographic factors except for gender, which was adjusted for appropriately in the analysis.

The intervention group received five 50 minute primary prevention health class sessions which initially provided information on the symptoms, causes, and treatments of depression, and then presented a behavioural intervention to increase daily rates of pleasant activities. Teachers utilised video presentation, discussion group sessions and lectures, and specific guided exercises. No mention was made of specific teacher training. Intervention integrity was assessed by research assistants' observations of these classes using a 'compliance' scale. Control group participants received the usual health class curriculum, over the same time as the intervention group. Participants from both groups were given a standardised, self-administered questionnaire before the intervention, immediately and 12 weeks afterwards. The questionnaire measured attitudes, treatment-seeking, knowledge, and depressive symptoms.

The authors concluded that there was no significant effect on any of the measures for either gender, at either post-test measurement. Reviewers concluded that the effect on attitudes, reported behaviour, and depressive symptomatology was unclear. A significant point was that young people were not involved in developing either of the interventions. Young people receiving the interventions may not have self-identified as being depressed, or may have reacted negatively to the way the content was presented.

Suicide

Finally, one study dealt with suicide prevention. **Silbert and Berry (1991)** evaluated the impact of a suicide prevention programme on reducing stress, anxiety and hopelessness in senior high school students aged 14 to 18 who demonstrated risk in those areas. Several senior high schools in urban California served as the setting for the intervention. Schools were recruited for their diverse ethnic sample. Allocation was not random, as the authors felt it was not feasible to assign pupils randomly. No indication of a theoretical base or participant involvement in the development of the intervention or evaluation was given. Curriculum materials developed by the Los Angeles Unified School District were used for the intervention.

Participants in the intervention group were provided with two 50 minute class sessions giving information about suicide and depression in general, how to recognise these symptoms in peers, and what kind of help is available in the community. Discussion group sessions, presentations, a video on warning signs of suicide, a leaflet about community services, and a "Personal Wellness Handbook" containing information and activities which paralleled lesson presentations were the means by which information was provided to the intervention group. Students in the control condition were given the unit later, they received the usual health curriculum. Intervention providers were health class teachers. All teachers providing the intervention participated in an orientation session conducted by the evaluator, who also observed some of the suicide prevention unit work with each class. While no data were presented on intervention integrity, the author suggests that teachers did present the unit consistently.

Participants in the study were evaluated on measures of stress, anxiety, hopelessness, knowledge about suicide prevention and perceived level of social support, using standardised self-administered questionnaires and psychological tests. With the exception of perceived level of social support, which was only measured at post-test, all measures were taken prior to the intervention, immediately after the intervention, and two months afterwards.

Results from the study indicated that the intervention was ineffective in improving any outcomes. However, the authors argue that within the experimental group, knowledge, stress, anxiety and hopelessness improved after the intervention. Reviewers concluded that there was no effect in improving knowledge, stress, anxiety, or hopelessness.

6. IN-DEPTH REVIEW: RESULTS OF STUDIES EXAMINING YOUNG PEOPLE'S VIEWS

Outline of Chapter

The focus of this chapter is the non-intervention research from the UK included in the in-depth review: those studies examining the views of young people on the barriers to, and facilitators of, their mental health. It describes:

- *the **characteristics** of the studies (e.g. mental health focus; characteristics of young people included); and the characteristics of young people (e.g. their socio-economic status);*
- *the **methodological attributes and quality of the studies** (e.g. instruments used, sampling issues, reliability and validity of data collection and analysis);*
- *a **synthesis of the findings** of these studies (e.g. what 'mental health' means to young people and their attitudes to mental illness, perceived positive and negative influences on their mental health)*

Detailed structured summaries of each study follow the results, ordered according to whether or not they addressed barriers and facilitators; or asked young people for their ideas about mental health promotion. Appendices F and G contain more systematically ordered information.

As with the results of the intervention studies:

- ***practitioners, policy specialists and health care consumers** are likely to derive most benefit from the findings of the young people's views studies outlined in section 6.5.*
- ***researchers** will also find useful the description in sections 6.1 to 6.4 of the characteristics and methodological attributes of the studies. The description of study methodology will be of particular interest as it highlights the areas in which research on young people's views could be improved.*

Key Messages

- *A total of 12 studies were included. Most were on general mental health issues and young people aged between 11 and 16 in school settings. Few studies reported details of social class or ethnic group.*
- *Methodological quality of the studies was variable. Whilst all studies provided a clear description of the context of the study and nearly all stated their aims, only two made any attempt to establish the reliability and validity of data analysis.*
- *Young people equate the term 'mental health' with 'mental illness' and do not see it as relevant to their own lives. They may relate better to terms such as feeling 'sad', 'lonely', 'depressed' or 'troubled'.*

- *They have a wide range of concerns from unhealthy school practices to environmental pollution and poverty. Main worries or sources of stress arise from the school (e.g. teachers, workload), relationships with family and friends (e.g. rejection by peers), the self (e.g. academic achievement), and material and physical resources (e.g. future employment; lack of leisure opportunities).*
- *Young people use a number of coping strategies, including listening to music, indulging themselves (e.g. eating chocolate), physical activity and using drugs and alcohol. Talking to someone was not always considered useful or possible for all young people and there were anxieties around talking to adults such as teachers or parents.*
- *Ideas for how their mental health could be promoted included: helping them to deal with their experiences of loss; better provision of relevant information and advice (e.g. designed by young people, emphasising what to do rather than the problem itself); more money for services such as ChildLine; and the need to be listened to, heard and understood.*

The mapping identified a total of 16 reports describing non-intervention research examining young people's views about their mental health. Most of these were found through our original search strategies (n=10), in particular from searching the specialist register HealthPromis (n=8). Three reports were found through scanning the reference lists of already identified reports and three through personal contacts.

Our inclusion criteria for these studies specified that they should date from 1990. Three of the 16 reports were excluded as they were published before this: a longitudinal survey of the concerns of young people (Gillies, 1989) and two cross-sectional surveys of the range and seriousness of problems experienced by young people aged 12-16 years in England and Northern Ireland, leading to the development of the Porteous Problem Checklist, a standardised scale for examining the concerns of young people (Porteous, 1979; 1985).

Of the remaining 13 reports, two described the results of the same study (Gallagher and Millar, 1996; Gallagher and Millar, 1998) leaving a total of 12 separate studies examining young people's views. This represents only 3% of the studies identified overall. Publication dates ranged from 1992 to 2000. Six studies were conducted in England (Aggleton *et al.*, 1995; Bowen, 1997; Derbyshire, 1996; Friedli and Scherzer, 1996; Brown, 1995; Tolley *et al.*, 1998), three in Scotland (Armstrong *et al.*, 1998; Gordon and Grant, 1997; Porter, 2000) and two in Northern Ireland (Gallagher *et al.*, 1992; Gallagher and Millar, 1996). One study was carried out in both Scotland and England (Balding *et al.*, 1998). These 12 studies went on to the detailed data extraction and quality assessment phase of the review.

6.1 Mental health focus and context of studies

Most of the studies (n=7, 67%) focused on a range of different mental health topics (e.g. sources of stress, coping, self-esteem) or mental health issues in general (Aggleton *et al.*, 1995; Armstrong *et al.*, 1998; Bowen, 1997;

Derbyshire, 1996; Friedli and Scherzer, 1996; Gordon and Grant, 1997; Brown, 1995; Porter, 2000). The remainder examined the worries and concerns of young people specifically (Balding *et al.*, 1998; Gallagher *et al.*, 1992; Gallagher and Millar, 1996; Tolley *et al.*, 1998).

Two studies reported carrying out the research explicitly to inform the development of specific mental health promotion interventions (Bowen, 1997; Porter, 2000). Study authors offered a range of different rationales for why they considered it important to examine young people's views. These were that young people's views are inherently valuable and they have a right to be heard (e.g. Armstrong *et al.*, 1998; Gordon and Grant, 1997; Tolley *et al.*, 1998); there is a lack of knowledge about what young people think (e.g. Brown, 1995); adults' views about what young people need are likely to be inaccurate (e.g. Gallagher *et al.*, 1992; Gallagher and Millar, 1996); and there are few opportunities for young people's views to influence policy (e.g. Aggleton *et al.*, 1995). Some studies, however, offered no rationale as to why it might be important to examine young people's views (Balding *et al.*, 1998; Derbyshire, 1996; Friedli and Scherzer, 1996; Porter, 2000).

6.2 Characteristics of young people included in the studies

The only characteristics of the young people consistently reported were age and sex. Details of the social class and ethnicity of the sample were less commonly reported. Table 26 gives details.

Most of the studies focused on samples of young people classified as 'younger only'. These included two studies with young people aged 13 to 14 (Brown, 1995; Gordon and Grant, 1997); one with young people aged 14 to 15 (Bowen, 1997); one with young people aged 11 to 14 (Derbyshire, 1996); one with young people aged 12 to 15 (Balding *et al.*, 1998); and one study with 12 to 16 year olds (Porter, 2000). Only three studies used an older age range (Aggleton *et al.*, 1995; Gallagher *et al.*, 1992; Gallagher and Millar, 1996). Three studies included a broad age range: 11-24 (Friedli and Scherzer, 1996); 12-24 (Armstrong *et al.*, 1998) and 10 to 17 (Tolley *et al.*, 1998). Nearly all the studies focused on young people of both sexes; one included young men only (Aggleton *et al.*, 1995).

Only a third of studies stated the social class of the young people (Balding *et al.*, 1998; Brown, 1995; Friedli and Scherzer, 1996; Porter, 2000); all of these indicated that they had included young people from different socio-economic backgrounds. Several other authors said they had attempted to recruit young people from different backgrounds but did not present any details on the actual samples obtained. Five studies reported whether young people from minority ethnic communities had been included (Armstrong *et al.*, 1998; Aggleton *et al.*, 1995; Balding *et al.*, 1998; Friedli and Scherzer, 1996; Tolley *et al.*, 1998). Across the 12 studies, between 5% and 27% of the young people included were from ethnic minorities. Only five studies stated whether their samples were from urban or rural regions.

Most studies used school samples and collected data from young people when they were in school (n=8) (not shown in table). Thus, the findings from

these studies may not be applicable to young people who are excluded from school, who infrequently attend school, or have left school.

Table 26: Number and proportion of studies according to characteristics of the samples of young people used: Studies of young people's views (N=12).

	N	%
Age range*		
Younger only	6	50
Older only	3	25
All ages	3	25
Sex		
Mixed sex	11	92
Male only	1	8
Female only	0	0
Social class		
Stated	4	33
Not stated	8	66
Ethnicity		
Stated	5	42
Not stated	7	58
Area of residence		
Stated	5	42
Not stated	7	58
Other information		
Stated	5	42
Not stated	7	58

* A study sample was classified as 'younger only' if the majority of young people in the sample were aged 15 or younger; 'older only' if the majority were aged over 15; and 'all ages' if the sample covered a wide age span (e.g. 11 to 14 years or 11-17 years).

Five studies presented a range of other information on the study population. This included school type (Balding *et al.*, 1998; Gallagher *et al.*, 1992; Gallagher and Millar, 1996); academic ability (Gallagher *et al.*, 1992; Gallagher and Millar, 1996); religion (Gallagher *et al.*, 1992; Tolley *et al.*, 1998); and whether the young people were 'at risk' (Aggleton *et al.*, 1995) because they were homeless, unemployed or had drug/alcohol problems; had been diagnosed as having mental health problems, or had a mentally ill

parent (Armstrong *et al.*, 1998). Three studies focused on socially excluded groups (Aggleton *et al.*, 1995; Armstrong *et al.*, 1998; Tolley *et al.*, 1998).

6.3 Methodological attributes of the studies

This section describes the methods reported in the 12 included studies.

Methods of sampling were not generally described. Five (42%) of the studies gave no information on sampling frames used; four (Balding *et al.*, 1998; Gallagher *et al.*, 1992; Gallagher and Millar, 1996; Gordon and Grant, 1997) used schools as their sole source, two (Armstrong *et al.*, 1998; Tolley *et al.*, 1998) used schools combined with other sources, and one (Aggleton *et al.*, 1995) employed non-school sources. The methods used to select participants from these sampling frames were described in five (42%) of the studies. Schools were either given (varied) instructions on selecting pupils (Balding *et al.*, 1998; Gallagher *et al.*, 1992; Gallagher and Millar, 1996), or teachers selected pupils to reach certain sample sizes (Armstrong *et al.*, 1998), or all pupils within a given year group and present on a given day were included (Gordon and Grant, 1997).

With respect to the types of data collection used, five studies reported the use of self-completion questionnaires only (Balding *et al.*, 1998; Derbyshire, 1996; Gallagher *et al.*, 1992; Gallagher and Millar, 1996; Gordon and Grant, 1997). Interviews were mentioned in seven studies. In three there was no mention of other methods (Aggleton *et al.*, 1995; Friedli and Scherzer, 1996; Tolley *et al.*, 1998). The first of the three interview-based studies included both group and individual semi-structured interviews; the other two give no details, although Tolley *et al.* (1998) present 'group responses' in their results. The remaining four studies used a mixture of discussion and self-completion formats to collect data. Armstrong *et al.* (1998) used focus group and semi-structured interviews which included vignettes describing people with mental health problems and a self-completion exercise. Porter (2000) used focus groups during which participants were provided with cartoons and examples of current mental health promotion resources. The remaining two studies combined structured self-completion questionnaires with single sex discussion groups (Brown, 1995) and self-completion questionnaires with discussion (Bowen, 1997).

Two thirds (n=8) of the studies provided details of the questions young people were asked. Table 27 shows that detail is particularly lacking for the interviews or discussions carried out in the seven studies using this mode of data collection. Only three of the seven presented information about the kinds of questions asked. Two gave their interview schedules in full (Armstrong *et al.*, 1998; Porter, 2000). Tolley *et al.* (1998) listed questions asked of young people as headings in their report. The questions asked in self-completion questionnaires were presented more fully in seven of the nine studies using this mode of data collection.

Five of the nine studies using self-completion questionnaires or exercises reported the use of fixed response questions, where respondents are asked to select from a set of fixed responses to describe their views (Balding *et al.*, 1998; Derbyshire, 1996; Gallagher *et al.*, 1992; Gallagher and Millar, 1996; Gordon and Grant, 1997). Four described using open response questions,

where participants are asked to use their own words (Armstrong *et al.*, 1998; Derbyshire, 1996; Gordon and Grant, 1997; Porter, 2000). The two remaining studies (Bowen, 1997; HEA, 1995) gave no details of questionnaire format.

Table 27: Number of studies describing the content of questions asked of young people: Studies of young people's views (N=12)

	N	%
Studies using interviews (N=7)		
Describe question content	3	43
Provide no detail about question content	4	57
Studies using self-completion questionnaires or other exercises (N=9)		
Describe question content	7	78
Provide no detail about question content	2	22

Other details of data collection presented in some studies included people present when questionnaires or interviews were administered, whether young people participated understanding that their contributions would be either anonymous or treated in confidence, and whether the data collection instruments had been tested in similar circumstances before use. Friedli and Sherzer (1996) gave no details for any of these aspects of their study. The person administering questionnaires or carrying out interviews was detailed in nine studies. Questionnaires were either handed out by teachers (Balding *et al.*, 1998; Gallagher *et al.*, 1992; Gallagher and Millar, 1996; Gordon and Grant, 1997) or researchers (Bowen, 1997). Armstrong *et al.* (1998) describe how researchers and two ethnic minority community workers conducted interviews. Aggleton *et al.* (1995) and Porter (2000) describe 'trained and experienced interviewers' and 'moderators' respectively. In the study by Tolley *et al.* (1998) interviews were carried out by researchers who were themselves young people. The other three studies (Derbyshire, 1996; Friedli and Sherzer, 1996; HEA, 1995) provided no detail on this aspect of data collection.

Only half of the studies reported making data anonymous or assuring their young participants that responses would be treated in confidence. Questionnaire completion was reported to be anonymous in four studies (Balding *et al.*, 1998; Gallagher *et al.*, 1992; Gallagher and Millar, 1996; Gordon and Grant, 1997). Assurances of confidentiality are reported in a further two studies (Aggleton *et al.*, 1995; Armstrong *et al.*, 1998). Pilot studies were reported in seven studies (Armstrong *et al.*, 1998; Balding *et al.*, 1998; Bowen, 1997; Derbyshire, 1996; Gallagher *et al.*, 1992; Gallagher and Millar, 1996; Gordon and Grant, 1997).

Data analysis is one of the least reported areas of study methodology. Detail is provided in only half of the studies. Two studies describe methods to analyse interview data for themes (Aggleton *et al.*, 1995; Armstrong *et al.*, 1998), the latter in some detail. One describes methods to analyse responses to open response questions in a questionnaire (Gordon and Grant, 1997), again in some detail. The other three studies describing their data analysis all

analysed fixed response questionnaire data (Balding *et al.*, 1998; Gallagher *et al.*, 1992; Gallagher and Millar, 1996). Methods involved the calculation and ranking of means and, for the latter two of these studies, multivariate analyses of variance. The remaining six studies all presented percentage figures and qualitative themes from their responses and quotations, but no detail as to how these were produced or selected.

Two measures of young people's active participation in these studies are requests for consent and their involvement in a study's development or evaluation. From the authors' reporting, consent appears to have been requested in only three of the studies. In two cases consent was requested from the young people themselves (Aggleton *et al.*, 1995; Armstrong *et al.*, 1998), with, in the second study, consent also being requested of guardians. In one study (Gordon and Grant, 1997) consent was requested of guardians only. Half the studies had involved young people to some extent in developing or evaluating study data collection tools, although the degree of participation varied. The most participative study was that reported in Tolley *et al.* (1998) which was led by seven researchers aged 14 to 16. This study describes how these young people drew up questions to ask their participants and conducted interviews. While this is not stated explicitly, it also seems from the style of the report that this group also analysed the interview data and wrote up the study report. The remaining five studies that involved young people in developing or evaluating their studies asked young people to contribute items to pilot versions of study questionnaires (Balding *et al.*, 1998; Derbyshire, 1996; Gallagher *et al.*, 1992; Gallagher and Millar, 1996; Gordon and Grant, 1997). Only one of these (Derbyshire, 1996) actually presents examples of the items suggested.

6.4 Methodological quality of the studies

As discussed earlier, we applied seven quality assessment criteria to the studies of young people's views. Table 28 shows the number of studies meeting these quality criteria.

All the studies provided a clear description of the context of the study and nearly all clearly stated their aims and objectives (83%). Most included sufficient original data to mediate between data and interpretation (67%). Just over half of the studies presented a clear description of the sample and how it was obtained (58%) and presented a clear description of data collection and analysis methods (58%). Only a third of studies (33%) demonstrated an explicit theoretical framework and/or literature review for the approach taken and/or methods used in the study and only two studies (17%) attempted to establish the reliability or validity of the data analysis.

Only two studies met all seven quality criteria (Armstrong *et al.*, 1998; Gordon and Grant, 1997). Two studies met six out of the seven criteria (Gallagher *et al.*, 1992; Gallagher and Millar, 1996), one study met five out of the seven (Balding *et al.*, 1998); three studies met four (Aggleton *et al.*, 1995; Porter, 2000; Tolley *et al.*, 1998); one study met three (Derbyshire, 1996); one study met two (Bowen, 1997) and two studies met only one of the seven quality criteria (Friedli and Scherzer, 1996; HEA, 1995).

Table 28: Number of studies displaying the different methodological criteria: Studies of young people's views (N=12)

	N	%
Explicit account of theoretical framework and/or inclusion of a literature review	4	33
Aims and objectives clearly stated	10	83
A clear description of the context of the study	12	100
A clear description of the sample used and how the sample was recruited	7	58
A clear description of the methods used in the study including those used to collect data those used for data analysis	7	58
Attempts made to establish the reliability and/or validity of the data analysis	2	17
Inclusion of sufficient original data to mediate between data and interpretation	8	67

6.5 What did studies examining young people's views find?

In order to synthesise the studies' findings about young people's views on their mental health, each study's findings were considered in terms of their potential to answer questions relevant to the task of developing mental health promotion interventions for young people. As a result of this exercise, studies were classified according to the main questions addressed by their findings. This is shown in table 29.

Table 29: Number and proportion of studies according to questions addressed: Studies of young people's views (N=12)*

	N	%
What are young people's attitudes to mental health issues?	3	25
What do young people think influences their mental health in a negative way?	12	100
What do young people think influences their mental health in a positive way?	4	33
What do young people do to feel better or good about themselves?	5	42
Who do young people talk to about their feelings or problems?	3	25
What ideas do young people have for what could or should be done to promote mental health?	4	33

*Study findings could address more than one question.

All the studies' findings addressed the question of what influences young people's mental health in a negative way. In contrast, only a third (33%) looked at positive influence and just under a half (44%) the kinds of things young people do in order to feel better or feel good about themselves. A quarter described young people's views on a specific aspect of this: talking to others about feelings or problems. Only a third of the studies had anything to say about young people's ideas for what they think should or could be done to promote mental health. Only a quarter of studies had findings relevant to how or what young people think about mental health more generally.

The specific findings are described below under each individual question.

What are young people's attitudes to mental health issues?

Three studies address this issue. Friedli and Scherzer (1996) do not present their findings or analysis in any detail but report that young people agreed that mental health was a concern for everyone and that society needs to be tolerant in its attitudes to those with mental health problems. They report suspicions, however, that sections of their study sample held less sympathetic views.

This theme is also addressed in Armstrong *et al.* (1998), who report that being able to relate to someone having emotional difficulties, having experience of something similar, or knowing someone who has such experiences seemed to influence young people's responses. In the sub-sample of young people recruited from mainstream schools and community centres, responses were more measured and more sympathetic towards people who were seen as behaving in a way that they could relate to. Young people who were living with a mentally ill adult were more sympathetic to given examples of mental distress. In a similar way, young people described in the study's vignettes (which all portrayed people identified with serious mental health problems) seemed to be viewed more sympathetically than those outside the study sample's age range.

The young people described the older people in the vignettes as having a mental illness but the young people as not. They seemed to be separating experiences and behaviour they could identify with from those which were unfamiliar to them. Depression, for example, was not defined as a mental illness, as it was thought to be within the boundaries of normal feelings and was familiar in some form to most participants. In contrast, the young people in this study who had been identified as having a mental health problem defined mental illness in terms of socially unacceptable behaviour. They had more punitive attitudes towards those who displayed psychotic behaviour and were more inclined to ridicule them. This group also seemed to have considerable trouble in identifying negative feelings that they or other young people might have.

As a way of looking at young people's perceptions of the challenge of addressing mental health issues, Porter (2000) asked their participants to fill in 'speech and thought' bubbles in a cartoon. The cartoon showed two young people standing next to a poster advertising a 'teenage mental health workshop'. In their responses, a number of participants illustrated how they or other young people might be interested in examining mental health, but be concerned at the negative connotations of a mental health initiative. For example, one cartoon character was shown saying to a friend, 'yeah right! I'm

not a head case, what would I want to go to that for!??', while thinking 'seems like quite a good idea, I wish I had the guts to go to that but I'm afraid what people might think' (Porter, 2000: appendix). Armstrong *et al.* (1998) reported that young people could relate more easily to terms such as 'sad', 'depressed', 'bored', 'worried', 'troubled', 'lonely', 'angry', 'scared', 'rejected' and 'confused' (Armstrong *et al.*, 1998) as definitions of being mentally unhealthy.

One theme relating to young people's attitudes to mental health arising in two studies (both of which involved people aged under 17), is particularly relevant to those developing mental health information and resources for this age group. These studies found that the phrases 'mental health', 'mentally healthy' and 'mental well-being' were either misunderstood or interpreted extremely negatively. Armstrong *et al.* (1998) describe how participants in their study tended to focus on one of the words 'mentally' or 'healthy' and ignore the other. Porter (2000) reports how their participants did not see the terms 'mental health' or 'mental well-being' as relating to their everyday problems or coping strategies. Similarly, Armstrong *et al.* (1998) describe their sample's use of these and other pejorative terms mainly when describing people with psychotic behaviour.

Armstrong *et al.* (1998) helped to put young people's attitudes about their own mental health in context by presenting their views on differences between their and adults' problems. Most of their respondents regarded their worries as far less important than those of adults, particularly those of their parents. Many even saw themselves as potentially responsible for adults' problems. This finding would seem relevant to those keen to develop systems of support for young people under pressure, suggesting a tendency for young people to keep problems to themselves of fear that these are too trivial to discuss with others. The issue of the extent to which young people are attempting to provide social support for adults and the impact of this on their own mental health is another that needs further investigation.

What do young people think influences their mental health in a negative way?

Ten of the 12 studies examined the main sources of worry or stress and distress for young people (Armstrong *et al.*, 1998; Bowen, 1997; Balding *et al.*, 1998; Derbyshire, 1996; Friedli and Sherzer, 1996; Gallagher *et al.*, 1992; Gallagher and Millar, 1996; HEA, 1995; Porter, 2000; Tolley *et al.*, 1998) two studies went further to examine why young people were concerned about these things or elaborated on how these concerns made them feel (Aggleton *et al.*, 1995; Gordon and Grant, 1997).

Looking across all 12 studies in terms of the *main* worries or sources of stress and distress, 10 studies identified things to do with school; seven studies friends or peer relationships; six studies characteristics of the self (e.g. physical appearance; achievement), the family and material resources; and four studies having nothing to do and concerns about finding a job or unemployment. Fewer numbers of studies identified the following as main concerns: 'romantic' relationships; bullying; violence; life events/transitions (e.g. parental divorce); health behaviours (either their own or other people's smoking, drinking *etc.*); environmental issues; general social issues.

Several studies used self-completion questionnaires with pre-determined categories of worries or concerns which young people had to rate according to how much they worried about each (Balding *et al.*, 1998; Gallagher *et al.*, 1992; Gallagher and Millar, 1996). The findings of these studies suggest that young people aged 12 to 15 tend to worry most about physical appearance, family and school. For 13 to 19 year olds, concerns about finding and/or choosing a job and feelings of powerlessness (e.g. not being able to make one's own decisions; being treated like a child) tended to replace worries about physical appearance.

Other studies determined the main worries or sources of stress and distress by letting young people come up with the categories themselves, using semi-structured interviews or discussion groups (e.g. Friedli and Scherzer, 1996; HEA, 1995; Porter, 2000; Tolley *et al.*, 1998). Although this latter type of study tended to generate longer lists of main concerns, in the main the findings were consistent. Although young people report being worried about a huge range of different things, the ones that are most frequently worried about or seem to result in most negative feelings are school work (having too much, pressure to do well, examinations); physical appearance (particularly for girls); for older young people, choosing and finding a job, unemployment, lack of material resources and feelings of powerlessness; friends and peer groups; and family.

Although this may provide a good starting point for prioritising the topic areas to focus on in mental health promotion, most of the studies did not ask young people *why* these areas are problematic. However, Gordon and Grant (1997) and Aggleton *et al.* (1995) attempt to address this question for some of the main sources of worry and stress.

In the study by Gordon and Grant (1997) young people identified several sources of things which made them feel unhappy or bad about themselves: things to do with other people (friends and family); things to do with school; and things to do with the self. Exploring these in more detail in the context of young people's everyday lives through 'Dear Diary' accounts (in which young people describe how they are feeling on the day the questionnaire is administered), Gordon and Grant analyse *why* these things make young people feel unhappy or bad about themselves. In terms of friends for example, being excluded or not accepted (not only by close friends but the wider peer group); being teased or being bullied; violation of trust and loyalty; and being left out and lonely all made young people feel unhappy or bad about themselves.

Aggleton *et al.* (1995) examined the views of young men aged 16 to 20 on what influences their mental health in a negative way. The study found several common sources of stress and distress: family discord; unemployment; not having a stable home; having nothing to do; fears for the future; and violence.

What do young people think influences their mental health in a positive way?

Only four studies presented young people's views on what does or could help them feel good (Armstrong *et al.*, 1998, Friedli and Scherzer, 1996; Gordon and Grant, 1997; HEA, 1995). While there was some overlap between the factors mentioned in the studies, there were also some differences.

Personal achievement was mentioned as being important in three studies. In Armstrong *et al.* (1998) this was linked by a number of young people to gaining recognition from friends and family, particularly parents. The importance of specific kinds of achievement was also mentioned: doing well at school (Friedli and Scherzer, 1996; Gordon and Grant, 1997) and in sport (Gordon and Grant, 1997). Self-esteem was mentioned in its own right as being important for helping young people feel good, although only in one study (Armstrong *et al.*, 1998).

Specific people were mentioned in connection with feeling good in more than one study. Families helped you feel loved and cared for in both the studies by Armstrong *et al.* (1998) and Gordon and Grant (1997). The young people surveyed in Gordon and Grant (1997) viewed families as helping with feeling loved and cared for, and friends as a way of getting respect. The young people who gave their views in the study published by the HEA (1995) identified parents but rarely teachers, as being an important source of self-esteem. More generally, young people in Armstrong *et al.* (1998) identified 'having people to talk' to as a cause of feeling good.

Money and financial security were sources of well-being in Gordon and Grant (1997) and Friedli and Scherzer (1996). All other sources of well-being identified seem unique to one or other of the studies. These included structural factors - increased employment opportunities (Friedli and Scherzer, 1996), or presents (Armstrong *et al.*, 1998); relationships with others - being congratulated, receiving compliments, boyfriends/girlfriends (Gordon and Grant, 1997); and enjoyable points in time and general activities - the end of the school day, winning at football, going out, physical activity, solitary pastimes (Gordon and Grant, 1997), and having fun (Armstrong *et al.*, 1998).

What do young people do to feel better or good about themselves?

Five studies presented young people's views on appropriate strategies for dealing with feeling bad or helping themselves feel good.

Only one study (Friedli and Scherzer, 1996) mentions strategies to prevent negative feelings. These authors describe how their sample, aged 11 to 24, identified a wide range of approaches as ways of addressing and preventing stress or anxiety. Listening to music was reported as the most helpful activity.

Music also features in the lives of Aggleton *et al.*'s (1995) sample of young men, some of whom described how they wrote music and took part in other creative activities to express their feelings. Scottish 12-17 year olds described music as a way of dealing with stress (Porter, 2000). The females in particular in this group were optimistic about coping and described ways of indulging and enjoying themselves, such as eating chocolate and taking long baths. Many of these ideas seemed to come from magazines and television. Consulting books and magazines was itself also identified as a strategy for addressing and preventing stress and anxiety (Friedli and Scherzer, 1996).

Physical activity or relaxation were frequently discussed. Young people described keeping busy and resting to deal with feeling bad (Friedli and Scherzer, 1996), sleeping for stress (Porter, 2000) and taking part in sport, dancing and 'going to raves' to deal with anger, frustration and feelings of hopelessness (Aggleton *et al.*, 1995). Older, more at-risk males thought that

sport was a better way of relieving frustrations than suggestions made by adults, such as seeing a counsellor.

Using physical aggression as a way of dealing with anger arose as a theme in three studies. 'Hitting out at objects or others' (Gordon and Grant, 1997), '[taking] it out on inanimate objects, siblings or.. other young people' (Armstrong *et al.*, 1998) and 'harming themselves or others' (Aggleton *et al.*, 1995) were all described. For some of the young men in this last study, the reverse was also true, and getting angry was seen as a way of avoiding having to harm yourself physically. There were clear differences between the mainstream school sample and the sample of young people with identified mental health problems in Armstrong *et al.*'s (1998) study, with the latter reporting cutting themselves when they felt angry, and stealing cars, both of which 'gave them a buzz'. Crying was described in the study by Gordon and Grant (1997) as another way of releasing feelings.

The young men in Aggleton *et al.*'s study also distinguished between different kinds of support that they could obtain from different kinds of friends: while male companions could reinforce feelings of identity, more intimate friendships, which tended in this group to be with girlfriends, were emotionally supportive.

Recreational drugs and alcohol were not reported to be a good way of coping with negative feelings. Participants in two studies (Armstrong *et al.*, 1998, Friedli and Scherzer, 1996) said that drugs and alcohol only have superficial, short term effects. Drugs were more commonly listed as a coping strategy to counter anxiety and/or stress in the two studies with older participants (Aggleton *et al.*, 1995, Friedli and Scherzer, 1996), although little information about this strategy is given.

Young men sometimes, but not always, identified different strategies from young women for dealing with negative feelings. One study (Friedli and Scherzer, 1996) describes boys as preferring 'doing to talking'; however, strategies seem more complex and difficult to access than this suggests. Whereas Porter (2000) reports young men as being more likely to 'lash out', Armstrong *et al.* (1998) describe how both boys and girls use aggressive behaviour to deal with anger (smashing objects up and fighting with others); girls were more likely to disclose this in the study's self-completion exercise than in individual or group interviews. Young men also appeared to try to 'bottle things up' in the hope that feelings would go away (Aggleton *et al.*, 1995; Armstrong *et al.*, 1998; Porter, 2000). This is described as a more general coping strategy in Gordon and Grant (1997). In the study by Porter (2000), young women were more familiar with coping strategies generally.

Who do young people talk to about their feelings or problems?

Talking to someone was something that Gordon and Grant (1997)'s sample of young people said they would do if they felt bad. Talking to friends specifically, was identified as a strategy to help counteract stress (Friedli and Scherzer, 1996, Porter, 2000) or when you felt bad (Gordon and Grant, 1997). However, talking was not routinely thought to be useful. The older males in the Aggleton *et al.* (1995) sample, who were more likely to be considered at risk of psychosocial disorder, had little faith in talking about problems. Young people who lived with a mentally ill adult frequently described finding it hard to get support from people, either because the illness was something that was too

hard to explain or because it was not something to be discussed outside the family (Armstrong *et al.*, 1998).

Among Scottish 12-16 year olds (Porter, 2000) 'talking to an adult' was the only strategy identified for coping with unfamiliar or particularly problematic stresses (examples given range from bullying and lack of money to rape, bereavement and pregnancy). These young people are described as having very few about how to deal with such situations, suggesting a potentially very important role for the adults they might turn to. The young people sampled in Friedli and Scherzer (1996) identified seeking advice from a professional as a strategy for addressing and preventing stress and anxiety. Counsellors were mentioned in only two studies (Aggleton *et al.*, 1995; Friedli and Scherzer, 1996) and were reported in a negative light in the first of these. Social workers were described as people who could be talked with in two of the three studies that had aimed to include young people with some experience of these (Armstrong *et al.*, 1998; Tolley *et al.*, 1998). The younger people in the second of these studies were critical of 'rude' treatment by GPs. One of the main findings of this study, which appears to have been conducted without much influence from adults, was that adults do not understand what really matters to young people.

Friends were more commonly identified than parents as people who could be talked to about problems (Bowen, 1997; Gordon and Grant, 1997). Teachers were named by very few young people as people who could be talked to about feelings or problems (6% of respondents in Gordon and Grant's 1997 survey, compared with 64% who would talk with friends and 26% who would talk with their mum).

Talking to someone about emotions or problems was sometimes seen as very problematic. A considerable number of young people felt they had nobody they could talk to: 17% and 8% in Bowen's and Gordon and Grant's studies respectively. Both these studies pointed out that some young people felt unable to talk to anyone (Bowen reports that a third of her sample felt unable to talk about their feelings) and others felt they had nobody suitable. This last aspect of talking about problems is dealt with in some detail in Armstrong *et al.* (1998). Confidentiality was found to be an important issue, with young people expressing worries that if they used help lines, such as ChildLine, their parents might find out. This issue was raised in connection with teachers; Porter (2000) reported that the teachers favoured by participants were not considered people to confide in because the issue would not remain confidential. In addition to confidentiality, however, young people in Armstrong *et al.*'s (1998) sample were also afraid that the person they confided in might undervalue their worries.

This was another area where differences were reported for female and male views. Two studies reported that girls were more likely to talk to someone (Gordon and Grant, 1997) or talk to friends (Porter, 2000) as a coping strategy.

What ideas do young people have for what could or should be done to promote mental health?

Very few studies (n=4) directly encouraged young people to provide their opinions as to possible initiatives or approaches that could be used to improve mental health. Armstrong *et al.*'s (1998) interview schedule contains a specific question about what young people would do if they were writing policy for young people's mental health. Some of the participants in this study advocated

providing more money for services such as ChildLine, the telephone help line for children and young people. There was a general need identified for better provision of information and advice; however this should be from people who knew what they were talking about and on relevant issues.

Opinions on the provision of information were also directly expressed in Porter (2000). This group of 12-16 year olds examined existing resources, which included mugs, postcards, stickers and other items publicising mental health as an issue or containing information about mental health. They then worked in pairs to develop ideas for further resources. Their opinions were that: standard leaflets hold no appeal; what to do should be emphasised rather than the problem itself; the resources should inform indirectly and should primarily serve another purpose (e.g. diary; postcards); messages should be short, punchy and positive; they should be directed at young people rather than adults; they should be designed by young people for young people. There were differences in the kinds of resources favoured by girls and boys. The girls tended to want more sophisticated information and were particularly enthusiastic about colourful postcards. The boys were uninterested in this resource. There was also an age and gender difference in the way young people responded to another resource, a leaflet entitled 'feeling crap'. Whilst this resource appealed to young men aged 12 to 13, all the young women and young men aged over 13 in the study responded to the leaflet with comments such as, 'infantile', 'disgusting' and 'meaningless'.

One study (Derbyshire, 1996), contained a direct request for a topic to be addressed in a resource pack for teachers. This study was explicitly conducted as a needs assessment for a teachers' resource pack on mental health in the light of high levels of suicide in the South Tees NHS Trust area. The study reports that the young participants in this study, who were aged 14 to 15, thought that young people's experiences of loss should be addressed in the pack.

Young people aged 13 to 14 in the study by Gordon and Grant (1997) reported ideal scenarios for what they would like to be able to do, how they would like to be treated and what they would like to have access to when feeling bad. Their desires centred around talking, being listened to and being heard. They expressed both a need to be cared for and a need to feel autonomous. Their wish list was: to be able to talk about their feelings and be listened to (mostly friends and family but some with health professionals); to be heard and understood; for someone to come along and help them, rather than their having to seek help; to be comforted, reassured and cheered up; and (in a substantial minority) to be left alone.

6.6 Detailed descriptions of studies examining young people's views

This section of the chapter describes in detail each of the twelve studies which examine young people's views. It begins with the studies which only examined views on *barriers* to mental health (those whose findings have addressed the question 'what do young people think influences their health in a negative way?'); followed by those which also look at *facilitators* (those whose findings have addressed the question 'what do young people think influences their health in a positive way?'; 'what do young people do to feel better or good about

themselves?'; and 'who do young people talk to about their feelings?'). Finally studies are presented which directly asked young people for their ideas about what could or should be done to promote mental health.

Studies which examine barriers to good mental health only

Three studies examined only barriers to good mental health.

In the context of school guidance services and curricular, **Gallagher *et al.* (1992)** conducted a survey which aimed to determine the social and personal concerns of young people aged 15 to 18 years from the West of Northern Ireland. The 'Things I Worry About' questionnaire was completed by a total of 446 (49% female; 37% Protestant, 63% Catholic) students (representing low, medium and high academic ability levels) from two further education colleges; five secondary schools and three grammar schools chosen to be representative of the school system in Northern Ireland.

The questionnaire was developed by selecting relevant items from previous survey instruments and was then pilot tested on a group of 25 students from one secondary school. The final questionnaire asked young people to indicate the frequency with which they worried about 86 items pertaining to social and personal worries organised into eight general categories of concern: at school/college ('worrying about school work or examinations'; 'making friends with others at school'); choosing a job ('finding out what I'm interested in'; 'being afraid to make the wrong decision'); job finding (e.g. 'never finding a job'; 'asking the right questions in an interview'); at home ('talking to my parents/guardians'; 'discussing problems with my parents/guardians'); starting work ('having to deal with the public'; 'working with older people'); relationships with the opposite sex (e.g. 'asking adults for advice about relationships'; 'making or accepting a date'); myself ('not being able to solve the problems that I have'; 'not having enough confidence'); myself and others ('explaining something to other people'; 'getting others to listen to what I have to say'). Young people were also given the opportunity to add other concerns which might not have been covered in the 86 items. Researchers administered the questionnaire in all institutions in class time over a two week period. Students were assured of complete anonymity. Results were analysed according to differences between the frequency of worry for each category and according to socio-demographic variables (age, gender, religion and school type).

The eight areas of worry were ranked as follows: finding a job; myself; choosing a job; opposite sex; myself and others; starting work; at home and at school/college. The top ten individual items which young people reported worrying about most were 'never finding a job'; 'people close to me dying'; 'preparing for an interview'; 'answering questions well at an interview'; 'afraid to make wrong decisions about a job'; 'asking the right questions' at an interview'; 'what the future holds'; 'the way I look'; 'school work or examinations'. The bottom ten items which young people reported worrying about least reflected interpersonal concerns such as 'getting parents/guardians to listen to me'; 'making friends with others in school'. Several differences in worries emerged with respect to gender, age and school type: young women expressed more worries across all items than young men; frequency of worry decreased as age increased; those from grammar schools expressed more worry about schoolwork and examinations and those from secondary schools expressed more worry about being bullied and standing up for themselves. A content

analysis of the open-ended responses revealed three new categories of worries: money matters (e.g. 'never having enough money'; 'being able to pay my debts'); school/college work ('whether I will pass my examinations'; 'having enough time to do my homework'); and change (e.g. 'Leaving friends and family to move away from home'; 'failing at what I might do in the future'). The authors argue that these findings suggest that job finding, in particular concerns about job interviews and making the right decisions and confidence in themselves (especially in the way they look) are major sources of worry for these young people, whereas interpersonal issues cause less frequent worry.

This study was replicated on a larger scale with young people aged between 13 and 19 in Northern Ireland in a follow-up study by **Gallagher and Millar (1996)**. A revised version of the 'Things I Worry About' scale was administered to 4031 students from 24 schools across Northern Ireland. Teachers in each school were asked to administer questionnaire to a sample of low, average and high ability class groups from year 10 and above. The final sample consisted of 3,983 students (40% male and 60% female). Students from both grammar schools (57%) and secondary schools (43%) were included as were single sex schools (44%) and mixed sex schools (56%).

The revised 'Things I Worry About' scale consisted of 138 items which young people had to rate according to the frequency with which they worried about each item on a four point scale ranging from one ('never worry') to four ('always worry'). The 138 items were developed to cover thirteen general categories of worry: myself (e.g. 'people making fun of me'); home (e.g. 'being treated like a child'); starting work or college (e.g. 'making new friends at work or college'); opposite sex (e.g. 'not having a boyfriend/girlfriend'); schoolwork (e.g. 'Having too much homework'); verbal communication (e.g. 'speaking out in class'); choosing a job/course (e.g. 'finding out what I am interested in'); money matters (e.g. 'having enough money'); social confidence (e.g. 'breaking off a relationship'); powerlessness (e.g. 'other people making decisions for me'); obtaining a job/course (e.g. what to do at the start of an interview'); change (e.g. 'people dying'); information seeking (e.g. 'asking people for information about jobs').

Young people worried more often about some categories of worry than others. The rank order of categories young people worried most often about was: schoolwork; choosing a job/course; powerlessness; finances; change; obtaining a job/course; myself; verbal communication; starting work/college; opposite sex; at home; information seeking; and social confidence. The ten items rated most worrying in rank order (most worrying first) were: whether I will pass my examinations; what will happen if I don't do well enough in school; not getting good enough grades to get a job/course; never finding a job; getting down to studying; coping with the stress of examinations and coursework; what kind of work I will end up doing; not making anything out of my life; being under pressure from schoolwork; people close to me dying. Gender and age differences suggested that females reported worrying more than males and older males reported worrying less than younger males.

The results of this study suggest that in any efforts to promote mental health, concerns about schoolwork, choosing a job/course, powerlessness; finances and change should be priority areas, whereas concerns about the practical aspects of obtaining a job, self and interpersonal relationships may be less important. The study's authors recommend that interventions are needed to

help develop strategies for coping with school work stress and study and examination techniques, and career guidance interventions need to emphasise decision-making processes in terms of making effective choices rather than practical aspects of getting a job.

The reviewers judged both these studies as meeting six out of the seven quality criteria. Although the findings of the studies provide a starting point for further research, there were a number of issues in relation to the interpretation and applicability of the findings. Firstly, no information is provided on whether data were collected over a range of times in order to allow for the possible influence of school examinations; worries in relation to school work and examinations would be higher at certain times than at others. Secondly, certain groups of young people may not have been represented in the research. For example, those excluded or absent from school would not have been able to take part, and teachers may have selected classes which were more likely to behave in a way consistent with quietly completing a lengthy survey. In addition, as the authors' note, grammar schools were over represented in the sample and thus may have inflated worries about school work. Thirdly, the worries presented as being of concern to young people are somewhat out of context. The findings do not tell us *why* things are worrying or in what way. For example, the biggest worries might seem overwhelming in the short-term but be manageable with familiar or easily learned coping strategies.

A similar approach was taken in 'No Worries? Young People and Mental Health', a report produced by the Schools Health Education Unit, Exeter (**Balding et al., 1998**) which aimed to "examine the concerns of normal young people without focusing on the small minority who manifest acute mental illness" (p.6). The report is based on data collected for an annual survey of health behaviour amongst young people carried out in 1997. The report was published in response to 'Our Healthier Nation' (DoH, 1999a), in particular its goals of reducing mental-ill health, with the authors suggesting that to measure the success of any intervention to promote mental health amongst young people, the worry levels of a representative cross-section of young people need to be established. This is the only study not to highlight why it is important to examine young people's views. No previous research is mentioned as informing the study.

One hundred and twenty-two secondary schools took part in the survey (6% middle; 72% comprehensive; 2% grammar; 3% independent; 6% secondary modern; 7% special school; 4% other) from 21 different areas of the UK (representing six health authorities: 14% Anglia and Oxford; 19% South and West; 36% South Thames; 27% Trent; 18% West Midlands; 10% Ferth Valley). Two year groups from these schools took part (year eight and year nine) giving a total of 19,238 young people who completed the questionnaire. As schools and/or health authorities could choose which sections of the questionnaire to include, the full questionnaire was completed by 16,732 students.

This sample was 53% male, with 51% aged between 12 and 13 years and 49% aged between 14 and 15 years. In all, 16% of the sample came from schools in which between 11 and 15% of all students qualified for a free meal; 32% from schools where between two and five percent of all students were from ethnic minorities. A previously validated standardised self-completion questionnaire (the Health Related Behaviour Questionnaire) was administered during class time by teachers who assured young people of anonymity and confidentiality.

The main question relevant to mental health was one which asked young people to rate on a scale of 0 to 4 how much they worried about 13 different problems (school problems; money problems; health problems; career problems; unemployment; problems with friends; family problems; the way you look; HIV/AIDS; gambling; smoking; drinking; drugs). From this question a 'worry index' was calculated. Further measures which the authors link to the worry index in the analysis are self-esteem; health locus of control and levels of smoking, drinking and drug use, which adults they get on best with; how many adults they can trust; and which adults they would want to talk about problems to.

The findings suggested that the three top worries are 'the way you look' (with 36% rating this as worrying a lot about or quite a lot); family (26%) and school (24%). Other worries were rated in the following order: money problems; problems with friends; health problems; career problems; drugs; unemployment; smoking; HIV/AIDS; drinking and gambling. Difference between young men and young women in these top worries revealed that for both 'family' and the 'way you look' are the top two worries, but the third for girls is 'friends' and the third for boys is 'drugs'. Overall girls were found to worry more than boys and older pupils to worry more than younger ones.

The results of this study suggest that mental health promotion for young people should prioritise, concerns about physical appearance, school and family, whereas concerns about health such as smoking, drinking and HIV/AIDS may be less important. The authors suggest that, as worrying is bound up with other aspects of mental health, efforts to reduce worrying may also lead to improvements in self-esteem.

The reviewers judged this report to have met five out of the seven methodological quality criteria. There was no explicit account of the theoretical framework/literature review informing the study, and no attempt to establish the reliability/validity of data analysis. It also suffers from the same applicability and interpretability issues as the two studies described above.

Studies which examine barriers and facilitators

Five studies examined both barriers and facilitators.

'Young Men Speaking Out' (**Aggleton *et al.*, 1995**) describes the results of a study focused on the mental health of 160 young men aged 16 to 20. The study aimed to explore the factors that contribute to, and protect against, psychosocial disorders. This study was one of a number of research projects commissioned to inform the DoH's mental health promotion strategy; it focused on young men because of the higher rate of completed suicide and serious anti-social behaviour in this group.

The researchers specified in advance three particular groups of young men: those at relatively high risk of developing psychosocial disorders (n=70) recruited from youth advice centres, drop-in community centres, centres for young unemployed people, projects centres working with homeless young people, and resettlement projects; young men with a history of mental health problems (n=45), recruited from mental health drop-in centres, probation hostels/prisons, youth support services and youth health centres; and young

men participating in recreational activities (n=45) who may use such activities as a way of alleviating mental distress.

Young men were interviewed by researchers described as 'trained and experienced' using a semi-structured interview schedule. The schedule is not described by the authors, but from the data presented it can be inferred that it covered things which made the young men angry, depressed or unhappy and how they dealt with problems. Interviews were conducted over a six week period in unspecified locations. Informed consent was sought by the researchers and participants were assured of anonymity and confidentiality. Several pre-defined themes were looked for in the data analysis. These included identifying sources of stress and distress; the kinds of situations in which young men felt angry, frustrated and hopeless; and the coping strategies they found useful or otherwise. The results of the analysis were presented in a narrative format with frequent reference to quotations to support identified themes.

The study found several common sources of stress and distress amongst the young men. Many of these sources were interlinked and cumulative. These were family discord (ranging from extreme cases of violence in families to not getting on with parents); unemployment; not having a stable home; having nothing to do; fears for the future (especially when few aspects of their lives were certain in terms of, for example getting a job or having somewhere to live). An additional source of distress was relationship difficulties with partners. Common themes in young men's accounts about why they felt stressed, frustrated, or angry were perceived restrictions on their freedom, a deep anxiety about violence, and a lack of material resources. The restriction on freedom mainly arose from parental restrictions or conflict, and occasionally from the police and/or from societal attitudes and structure (in terms of, for example, lack of support and intolerance for those not living within a family unit or for those who had "dropped out" of society). Anxiety about violence mainly arose in terms of receiving threats and getting into fights (which most of the young men wanted to avoid), but sometimes also in terms of feeling such extreme anger and frustration that aggression was experienced in terms of "just clicking" or 'blinking out'. Lack of material resources led to negative mental health because of an inability to participate in leisure activities and simply not being able to get on with the tasks of everyday life. Racism was a source of anger and frustration for young men from minority ethnic communities. All these factors tended to be interlinked and cumulative, such that several young men expressed a general sense of hopelessness about their lives.

Whilst young men felt that talking about problems was unrealistic, and thus tended to bottle feelings up inside them in the hope that they would go away and/or people would leave them alone, problems were dealt with in a variety of other ways, including being creative (e.g. using music to express feelings); sport; and taking drugs and harming the self or others. In particular, taking part in sport was seen as a better way of relieving frustrations than strategies recommended by adults such as going to see a counsellor. The research did not find any evidence that risk-taking was used as a method of coping. Friends were seen as extremely important. Male friends provided solidarity, companionship and identity, whilst 'special friends', usually girlfriends, gave emotional support by, for example, helping young men to reflect on their lives and put them at ease with themselves. For some, getting angry was viewed as a way of coping with feelings of depression, and as a way of preventing

engaging in other potentially more harmful coping strategies. When asked directly what frustrated their ambitions and 'got in the way' of what they wanted to achieve, central concerns were the lack of anything to do or places to go, not being taken seriously by adults and the potential for getting into trouble with the police. When asked about 'the kinds of things they would like to do', frequent answers were getting a job, going to college, finding somewhere of one's own to live and generally being able to get on with life.

The authors make several clear recommendations for mental health promotion for young men. These include the need to promote positive coping strategies, for example learning how to seek help and addressing difficulties young men have in talking about problems; and building on young men's existing strengths and ways of coping by, for example, using anger creatively, and providing low cost opportunities for participating in sport and creative activities. The study also draws attention to the fact that these men's mental health is often undermined by situations over which they have little or no control and that their achievements in these challenging circumstances need to be recognised and valued by society.

Reviewers judged this study as meeting four of the seven quality criteria for non-intervention studies. A particular problem was the lack of a clear description of the methods used, especially in terms of data collection. This made it difficult to understand the framework of the kinds of conversations that went on between interviewers and study participants, and to assess to what extent the researchers had really engaged the young men in talking about mental health issues without influencing their answers. Otherwise this study is valuable in that it is one of the few which examine the views of socially excluded young people.

The findings of this study suggest a very similar range of factors to those reported in several other studies: family and relationship difficulties; lack of material resources; boredom; fear of violence; and racism. What is particularly salient in these young men's accounts, however, is the feeling of not being valued and/or harassed by wider society and the powerful role of structural factors such as lack of material resources and opportunities for either work or leisure. In terms of views on barriers this study goes further than many of the others because the young men were directly asked what they thought got in the way of achieving what they wanted to achieve. What the study does not do is go one stage further and ask the young men for their views on whether and/or how best to intervene in their lives to promote their mental health and well-being.

'Young opinions: great ideas' (Tolley *et al.*, 1998) aimed to 'discover what the concerns of young people are everywhere, what their worries are, and how we can make people listen to them'. The study is particularly distinctive in that it was carried out by a young research team. Seven young people aged 14 to 16 were recruited by the National Children's Bureau, received research training, composed questions for the study and conducted interviews. While it is not stated explicitly, it also appears that this group carried out analysis and wrote up the study report.

Seventy young people took part in the study, in either focus groups or individual interviews. Participants were aged 10 to 17 (97% were aged eleven or more). Almost one quarter of the participants were from ethnic minorities, 40% were

female and 17% said they had special needs. Participants lived in England with their parents (69%), in residential schools (16%) and in secure units (16%). No explicit details are given of the interview or focus group format or content but the study's findings are presented under the following set of questions: What concerns you most as young people? Is there anything else that you think about a lot? Do you think adults understand what really matters to you? We're trying to help children and young people be heard. Do you think children and young people want to have a say? Why is it so important that children and young people have a say? Which groups of young people do you think get missed out when it comes to having a say? How can we get these children more involved so they do have a say? How can adults run children's charities so that children and young people can be heard? What else can we do to help get children and young people a better deal wherever they live? The interviews were carried out in two secure units, a variety of schools (four comprehensive, one grammar, one special), two youth projects and one scout group.

The study's results are split into sub-sections, each with one of the questions described above as its heading. Each section starts with a summary, is followed by selected quotes from interviewees and finishes with an 'analysis' section. The researchers do not describe their methods of analysis, but these include reflection on their own experiences of the interviews.

The authors conclude that young people are concerned about drugs, bullying, racism, relationships, peer pressure, too much schoolwork and pressure to do well from teachers, their own personal futures, money, pollution, other people smoking and drinking, material circumstances and war. Most young people believe that adults, especially parents and teachers, do not understand them. Young people are especially suspicious of politicians, who they think treat them as if they were a risk to society. GPs are described as rude and patronising; social workers come out somewhat better, since their contact with young people is generally seen giving them a better understanding.

The study's findings need to be interpreted with caution. It is unclear to what extent these may have been influenced by the views and concerns of the study researchers (who were also young people). The study met four of the review's seven methodological quality criteria. Of note were the reporting of sampling methods and sample and the extent to which the study presented its original data.

This study provides us with some examples of areas which might be appropriate to target with health promotion interventions. However, again, young people do not seem to have been asked directly what they think could or should be done to reduce their worries or improve their well-being.

A short, article entitled 'The feel-bad factors' (**Derbyshire, 1996**) describes a study whose stated aim was to explore stressful life events and daily hassles, depression and physical symptoms among 11 to 14 year olds.

A pilot study was carried out with 14 young volunteers. The questionnaire in the main study was administered in a mixed sex school in an urban area of East Lancashire. The article contains very little information to describe the study's sampling methods: no detail is given about how or why the school was selected. No information is provided as to whether students were selected in any way and the characteristics of those filling in the questionnaire are not described.

A total of 112 pupils aged 11 to 14 completed the questionnaire which was the school's personal and social education programme. It contained a checklist of physical symptoms, a self-report measure of childhood and adolescent depression and a list of stressful circumstances, each of which was to be rated on a scale of 0 to 4. Stressful circumstances included major events such as parental divorce and changing school, and daily hassles such as being left out, homework pressures, arguments at home, lack of money, boredom and pressure to conform. Young people were given an opportunity to make additional comments and to feed back information to the researchers. No detail is given of the study's methods of analysis.

In terms of stressful circumstances, questionnaire respondents rated not having enough money the highest. Next in rank was conflict at home, either with or between parents, then 'having nothing to do'. 'Feeling left out', which the author interprets as measuring peer relations, came fourth. Many questionnaire respondents wrote additional comments about sources of stress that were of concern but were not in the questionnaire. Among these were fights with brothers, sisters or friends, problems on the school bus, large quantities of homework and bullying or name calling.

The author argues that high measures of stressful life circumstances were associated with high depression and high physical symptom scores. Young women were reported as being significantly more vulnerable than young men and vulnerability seemed to increase with age. The study's findings are interpreted as indicating that young people need help adapting to stress. The author focuses on school-based approaches and highlights two potential ways of improving adaptation to stress: firstly, teaching effective coping skills, problem-solving skills and social competence and, secondly, recognising and reducing sources of stress which are under school control, for example problems with particular teachers, school work or extracurricular overload.

Young people in this study, were encouraged to try to imagine causal links - to say how specific familiar circumstances may have affected their well-being. This approach attempts to use young people's knowledge and ability to a greater degree than does a simple ranking of worries or concerns. However, the young people were not asked for their suggestions as to what might help reduce the problems they have identified. We are instead left with a 'top four' of stressors experienced by young people as making them feel bad. It is unclear as to whether, and how, young people would want these aspects of their life addressed. Furthermore, as mentioned above, the study's reporting of its methods leaves us uncertain about the validity of its conclusions; it met only three out of the review's seven methodological criteria.

'Positive Steps' (**Friedli and Scherzer, 1996**) reports on a piece of research, commissioned by the Health Education Authority, England, for World Mental Health Day in 1996, carried out by a commercial research company, and written up by the Health Education Authority in collaboration with 'Bliss' magazine. Although the aims of the research are not explicitly stated, the information provided on the background and development of the research suggests that it aimed to provide young people with an opportunity to express their own views and perspectives.

Only a small amount of information is given about the methods used to conduct the research. Thirty minute interviews were carried out with a total of 1,853

young people (52% female) aged 11 to 24 from throughout the North and South of England. Those interviewed were from a range of different classes, 10% were from ethnic minorities, and a third were aged between 19 and 24 years old. No details are given about data collection or analysis methods. Results are presented using descriptive statistics and illustrative quotes under the following headings: what is the general attitude of young people towards mental health issues? what is the difference between mental health and mental illness? how much contact do young people have with people experiencing mental health problems? what do young people worry about, and how might they improve the quality of their life? and, what are young people's coping strategies?

Most of the young people in the study agreed that mental health is a concern for everyone; that mental health problems are common and that society needs to be tolerant in its attitudes to those with mental health problems.

The authors' summary highlights young people's serious concerns about environmental and social issues such as pollution, crime and unemployment, in addition to the problems they have coping with the daily stresses of school and family life. In terms of what would improve the quality of their lives, common themes were financial security, academic achievement and increased employment opportunities. Only a tiny minority were concerned about not having a girlfriend/boyfriend or about 'romance' issues. In terms of coping strategies, most young people felt strongly that something can be done to look after their own and other people's mental health, and they described many positive and non-destructive ways of coping with their problems. In developing appropriate support services, the authors suggest that it is important to build on these existing strategies. Across the age range, young people find listening to music most helpful activity for addressing and preventing stress and anxiety. Most young people found discussing problems with friends or relatives to be a useful strategy. Other strategies mentioned were physical activity; keeping busy; resting; seeking advice from a professional; and consulting books and magazines. Few relied on drugs to cope with stress; most of those who did, agreed that this activity offers no long-term benefits. Several familiar gender differences were found. Young men preferred 'doing' to 'talking' as a way of coping; 35% of young men compared with 25% of young women used regular exercise to 'de-stress'; 21% of young men but only 15% of young women went to the pub to forget their troubles; 35% of young women and 28% of young men reported seeking help from a counsellor.

The reviewers judged this study to have met only one out of the seven quality criteria. With a lack of clear detail about sampling, sample characteristics, data collection and data analysis methods and a lack of original data presented, the authors' summary and interpretation of the results of their research have to be taken on trust. At worst, this research provides a very general picture of some of the attitudes, concerns and coping strategies young people may have and use, and thus could provide a starting point for more in-depth and focused research. At best, some of its findings resonate with the findings of several other studies judged to be of a higher methodological quality, and so could add further confidence to what we know about the types of coping strategies used by young people.

'Expectations for the future' (HEA, 1995) describes itself as an investigation into the self-esteem of 13 and 14 year old young women and young men. It aimed to examine what young people worry about and what makes them feel good

about themselves. The authors do not frame the study primarily in terms of mental health, although they do refer to self-esteem at several points. Instead it is presented as a means of informing adults so that they can help both sexes to achieve their potential in later life, specifically in the world of work. The study's introduction focuses on young women in particular, noting that they are increasingly outperforming young men academically and asking what the implications are for the promotion of equal opportunities for women at work. The study was published to coincide with 'Take Our Daughters to Work Day' in 1995.

A structured questionnaire was completed by 1,054 young people from the South, North and Midlands of England from a range of social classes. Twelve single sex discussion groups were also held. The questionnaire asked young people about areas of life which they enjoyed and those that caused them concern. The young men and young women were also asked their views on each others' concerns. Views were sought about the relative importance of the support received from different adults and their own future in the world of work. No detail is given about the format of the questionnaire or the focus groups. The text contains direct quotations from young people and percentages reporting the frequencies of certain answers to selected questions.

The 13 and 14 year olds are reported to most like spending time with their friends and spending money. Their greatest worries were examinations, future jobs and careers. Young women are described as worrying more than young men and, in particular, are very worried about their appearance. Young women are also described as being very concerned about being liked and admired by others. The authors report that young men confirmed these were considerable worries for young women. Young men are described as worrying less about their appearance and being liked, although they are concerned to appear 'tough'. Instead, they worry a great deal about the possibility of failure in both sport and examinations. The young women are described as thinking that young men possibly have similar concerns to their own but that they are better at masking this by 'superficial self assurance or hiding behind "silly behaviour"'.

The authors describe parents as being an important source of self-esteem for the young people in their sample, whereas teachers are not (only 13% of young men and 11% of young women say their teachers make them feel good about themselves). Aside from this one question, the study does not seem to have asked young people directly as to what helps or might help reduce their worries or make them feel good about themselves. The remainder of the authors' key findings describe how their sample seem to hold narrow and stereotyped views of gender roles, for example, young men expecting to be breadwinners and young women expecting to choose only between work and motherhood. Most of the authors' recommendations relate to helping young people get a balanced view of their future work.

The reviewers rated this study as meeting only one of the methodological quality criteria, that for reporting a study's context. While it is clear that the researchers were interested in young people's potential for a balanced work-life, it is difficult to know in what way they communicated with their study sample, how they analysed these young people's reports of their experiences and to what extent conclusions are supported by data. If the study's methods were indeed sound, and if the worries reported can be thought of as potential barriers to mental health, then the findings suggest that examinations, future

jobs and careers are broad areas in need of attention for both sexes. Young women's self-confidence, specifically worries about their appearance and their social status, and young men's worries about failure might also be usefully targeted. The interpersonal relationships between young people and their parents and teachers might be a valuable place to start mental health promotion work.

Studies which ask young people for their ideas about how young people's mental health could be promoted.

Four studies were in this category.

'Listening to children' (**Armstrong et al., 1998**) explored how young people aged 12 to 14 years think about positive mental health and mental health problems and their ideas about help-seeking. The study was part of the Mental Health Foundation's 'Bright Futures Initiative' and aimed, through increasing awareness of young people's perspectives, to inform the development of appropriate services and health education and enable young people to help each other.

Seventeen focus groups and 18 individual interviews were held in urban and rural locations, in schools, community settings and at home. Young people were recruited in a variety of ways: through mainstream schools, Chinese and Pakistani community groups, a mental healthcare NHS Trust, residential schools, specialist youth projects, and local user and young carer groups. A total of 169 young people were interviewed.

The study interviews and focus groups took up two school periods. Different interview schedules were used for group and individual discussions, and interviewers included workers from two minority ethnic community groups. Participants were asked about what constitutes a mentally healthy or unhealthy person; what feelings are associated with positive and negative mental health, and what causes young people to be this way; what they do when feeling good and bad; who/what makes them feel better; what advice they would give to a government minister writing policy for young people's well-being; and what adults in general could do to help. A second session centred on five vignettes, each portraying an individual's experience of a particular mental health problem. These were used to look for attitudes to unusual behaviour and views on causes and possible sources of help. Interviewees filled in a self-completion form at the end of the session to describe their 'best' and 'worst' days.

Analysis showed that the concept of 'mentally healthy' was not a salient one for young people. Terms that meant more were 'happy', 'sad' and 'confident'. Support from family and friends were seen as especially important in difficult times. Other factors seen as important were having access to a trusted adult to talk to confidentially, having more activities to counteract boredom, and having an outlet for aggression when angry. Young people who lived with a mentally ill adult valued meeting in a group with others in a similar position. Other factors thought more generally to help with feeling good were personal achievement, feeling good about yourself, pets, presents and having fun. Anxiety and depression were most frequently described as being due to conflicts or loss in the family or peer relationships. Other factors connected with feeling bad included examination stress, peer pressure, boredom and environmental and social factors, such as poverty.

In terms of what should be done to help, young people specifically identified a need for better advice on issues that worry them, not just information on what adults think is important. The authors also note how some of the sample advocated the provision of more funding for services aiming to provide confidential advice to young people.

Young people in the study who lived with a mentally ill adult were more likely to emphasise the importance of being able to cope with “the ups and downs of life”, and young people with an identified mental health problem were more likely to describe using drugs, self-abuse and crime as remedies for feeling bad.

The authors conclude that listening and support is one of young people's main mental health needs, and that they are more accepting and tolerant of behaviour which is familiar to them. They recommend that young people be given opportunities to understand what people with mental health problems experience, so as to dispel the myths and stigma surrounding mental illness. The study provides two pointers for future health promotion work that were suggested directly by young people themselves - information centred on young people's concerns and giving more resources to young people's advice services. It also provides detailed background information which can be used to inform the development of interventions about the language used by young people to describe mental health and illness. The study is particularly helpful in that it involved young people who were outside mainstream education.

Reviewers judged the study as meeting all seven quality criteria. The study sampling, sample and data collection methods are reported in considerable detail. Of particular note are the authors' reflections on the impact of their methods, for example, the effect of their sampling on the kinds of young people that may have been left out of the study, and the possible influences of the study's interview dynamics on the contributions of different participants. This study is also distinctive because of its attempt to validate data analysis by feeding back interview findings to some of the interviewees.

'How We Feel' (**Gordon and Grant, 1997**) describes a research project stimulated by the question 'how best can we address the emotional and mental health needs of teenagers?' The background and development of the research involved several elements: a recognition that mental health reflects more than just the absence of mental illness; that existing research on young people's mental health tends to neglect how most ordinary young people feel; and that young people's views need to be solicited in research in order to produce a comprehensive picture of their welfare which is in line with recent children's rights legislation. Within this framework, the researchers (with the support of the Health Promotion Department of the Greater Glasgow Health Board) developed and administered an open-ended questionnaire to 2,486 young people aged 13 to 14 years. The research is written up in a book which presents the data analysis, followed by a series of chapters written by a range of professionals involved in young people's health promotion who were asked to consider the implications of the findings.

Questionnaire development was guided by a number of principles: the need for it to be straightforward and appealing; non-intrusive; and strike a balance between being exploratory and being rooted in what is already known). The final questionnaire had nine main sections. The young people were taken through a series of tasks and questions: a 'Field of Words' exercise in which

they were presented with a series of words describing different feelings and had to circle those which described how they were feeling on that day; questions about three things that made them happy, sad, feel good or bad about themselves respectively, who they could talk to about their feelings, what they do when they feel bad, and a 'Dear Diary' section in which they were asked to imagine they were writing a diary entry for that day about exactly how they felt. A cartoon character was invented as a logo for the questionnaire called 'Howie Feel' and the day the questionnaire was administered was designated 'Howie Feel' day. A range of promotional materials (e.g. t-shirts, posters) were distributed prior to the event, with the aim of trying to develop a positive attitude towards filling in the questionnaire.

Twenty state and seven independent schools from Glasgow were invited to take part. Thirteen state and three independent schools agreed, and administered questionnaires to third year pupils. Teachers were provided with explanatory notes and instructions and were asked to assure pupils of anonymity and confidentiality; parental consent was sought for young people to take part. Questionnaires were administered to 2,486 pupils; 1,634 completed these, giving a response rate of 66%. Few specific details are given on the socio-demographics of the young people taking part, although it is clear that young people were of mixed sex, from an urban area, and from a range of socio-economic backgrounds. Certain groups of young people - those from schools which did not agree to participate in the study, those who were absent from school and those whose parents did not give consent - were obviously excluded from the study, thus reducing the representativeness of the sample.

A detailed account is given of how the data were analysed. All questionnaires were read and re-read; a coding frame was developed based on the main points being made by teenagers (which was revised as new themes emerged); and then the number mentioning the themes within the coding framework was counted. Both authors analysed the data and they report that an effort was made not to read meanings into young people's responses that were not explicit. The results are presented in chapters which corresponded roughly to the sections of the questionnaire. Salient themes to emerge from the analysis are presented in each section and illustrated with descriptive statistics and quotes.

Responses to the questions what makes young people feel happy/unhappy and what makes young people feel good/bad about themselves fell into three main categories: other people; what young people themselves do, and specific events and/or situations. Looking firstly in terms of barriers - what makes young people unhappy/feel bad about themselves - the following factors to do with other people were identified: being teased or put down by others; difficulties with friendships (falling out with friends, being teased; not having any friends); not getting on with parents; and being blamed unfairly. For barriers related to themselves, other factors were mentioned: not doing well at school (which included getting bad marks, not understanding the work and not being able to cope with schoolwork/homework/examinations) or at sport; not being 'good' (e.g. stealing, bullying cheating, truanting, fighting); physical appearance; and personal attributes (e.g. being shy; not being able to open up; being ruthless with money). Commonly cited barriers related to specific events/situations were the death of a family member/friend, boredom, staying in and the weather; less common were having no money; violence; fears about going out; domestic chores and racism. In terms of facilitators - what makes young people

happy/feel good about themselves - many of factors young people mentioned were the opposite of the barriers. 'Other people' facilitators included: friends (having lots and getting respect from them); boyfriends/girlfriends; families (feeling loved and cared for); and being congratulated and receiving compliments. Facilitators related to themselves included: physical activity; going out; solitary pastimes; doing well at school; doing well at sport; and physical appearance. Commonly cited facilitators related to specific events/situations were: the end of the school day; winning at football and money.

Facilitators of mental health were explored in more detail in responses to questions about who young people would talk to about their feelings, and what they would do if they felt bad. Most (64%) said they would talk to their friends, followed by their mothers (26%). Few young people said teachers (6%), and 8% said they had nobody to talk to. The ideal person to talk to emerged as someone who is trustworthy; will not laugh or take the situation lightly; is good at listening; is caring and sensitive; and will only give advice when it is asked for. What young people would do if they felt bad included expressing or releasing feelings (telling someone; crying; hitting out at objects or other people); coping with feelings (trying and work things through; trying to cheer themselves up; keeping feelings to oneself, or hoping problems will go away). When asked what they would like to happen if they felt bad young people emphasised that they would like: to be able to talk about their feelings and be listened to; someone to come along and help them rather than having to go and seek help; to be heard and understood; to be comforted/reassured or cheered up. Some young people also wanted to be left alone (10%).

Several gender differences in these responses are highlighted. Girls were more likely to be people-orientated (more likely to cite friends and families as sources of happiness, self-esteem and talking to other people as a method of coping), and were more likely to say that their physical appearance was a source of unhappiness or made them feel bad about themselves. Boys were more likely to look within themselves or to link their own actions with sources of happiness/unhappiness, and were less likely to want to talk to other people as a coping strategy.

This study is valuable in giving clear pointers to what young people perceive as the factors influencing the way they feel in the context of their everyday lives. The authors draw out from the young people's diary accounts details on each of the main factors implicated in making young people feel happy/unhappy or bad/good: school; families; friends and peer group; boyfriends and girlfriends and things to do with themselves.

The accounts suggest that doing well at school - getting good marks, coping with the work, or just feeling they are trying hard - is a key factor in young people feeling good. Receiving praise from teachers, having a place to meet friends and liking particular lessons are all important. In terms of friends, being excluded or not accepted (not only by close friends but the wider peer group); being teased or being bullied; violation of trust and loyalty; and being left out and lonely all made young people feel unhappy or bad about themselves. For families, the perception of feeling loved and valued is key to young people's reporting of positive feelings; however, families were also implicated in the diary accounts in negative feelings. The ways in which families made young people feel bad included conflict between parents or between young people and their parents; parents' unpredictable behaviour; parents not understanding; parents

not coping (for example, with money, illness, or a death in the family); and lack of freedom (not being able to go out, getting questioned if they do, having privacy invaded).

In terms of school, the boredom and monotony of school, the stress of too much work (for example, homework which eats into free-time); the way teachers behaved towards them; and doing badly in school were some of things which made young people feel unhappy or bad about themselves. For the self, the issues were not feeling as if they were achieving (in school work, or more often, for young men, in sport); not feeling in control; and, for young women, concerns about physical appearance.

As the authors reflect, some of the issues relating to school and the family relate to tensions arising from specific position of young people; on the one hand, they are expected to be beginning to take responsibility and make decisions for themselves, while, on the other, they remain subject to the authority of both school and family.

Friends dominated the 'Dear Diary' accounts. Young people often explained why friends made them feel good in terms of the benefits of friendship (doing new things; being part of a group; offsetting negative feelings about school); getting emotional support (through provision of advice; being cheered up; sticking up for each other). Whilst young men tended to highlight the sharing of activities, young women stressed the sharing of emotions and experiences through talking. The main ways in which girlfriends or boyfriends could make young people feel good about themselves were through generating feelings of excitement and confidence and raising their status within a peer group; ways in which they could make young people feel bad were through rejection; jealousy; confusion about how they feel towards girlfriend/boyfriend, feeling pressures from within a relationship or because of not being in a relationship. Key to feeling good or bad about themselves was: accepted by others; feeling they are achieving; feeling 'virtuous', confident, and in control.

The reviewers judged this study to have met all seven of the methodological quality criteria. Particular strengths were that the authors had attempted to ensure the reliability and validity of their data analysis. In terms of substantive content, the study illustrated young people's views on the barriers to, and facilitators of, their mental health and provided some insight into how these might operate in an everyday life context. In addition, it attempted to engage young people in considering effective ways of promoting their mental health.

'Young people and mental well-being' is the title of the report produced for the Health Education Board Scotland by **Scott Porter Research and Marketing Ltd (Porter, 2000)** in the context of the year 2000 focus on young people for Scottish Mental Health Week. The aims of the research were explicitly to inform the development of mental health resources for young people, in particular to find the best way of communicating possible coping strategies. More specifically the objectives of the research were: to reflect on what mental health means to young people; to map out what strategies are used to maintain well-being; to identify key messages young people feel need to be communicated and to whom; and to test the concepts behind a range of potential resources. Focus groups made up of friendship pairs were used to collect data as enabling young people to feel less conscious talking about difficult issues.

Single sex focus groups of six to seven young people each were conducted with nine groups of young people, four made up of young people aged 14 to 15 years, three of 12 to 13 years and two of young people aged 16 years (this latter group contained a mixture of those who were staying on at school and those who had made the decision to leave). Socio-economic backgrounds were mixed. Two groups were from the 'Borders' and seven groups were from towns and cities (Edinburgh, Glasgow and Kirriemuir). The groups were facilitated by adults described as 'moderators' who followed a detailed standardised discussion guide. The guide specifically instructed the moderator to try not to mention the words 'mental health'. One sentence in the 'methodology and sample' section reflects the researcher's awareness of the possibility that participants might take exaggerated socially acceptable positions. Although confidentiality was not mentioned specifically, the discussion guide says that a code of conduct and rules were discussed at the beginning of the groups.

Group discussions lasted for one and a half. Firstly the moderators approached the issue of mental health indirectly, using young people's interest in soap opera characters to encourage them to think in some depth about young people and stress by inventing a character for a soap and elaborating on a story line around mental health. They were then asked to reflect on how the character would cope, and for their opinions on key messages regarding how to cope with stressful situations/problems. Secondly, the young people were asked to reflect on the meaning of mental health to young people and describe strategies used to maintain mental well-being. This was done through direct questioning and completion of a cartoon depicting two young people looking at a poster advertising a young person's mental health workshop with concurrent 'speech and thought' bubbles. Thirdly, existing resources for young people and mental health were examined by the groups. Participants were asked for their initial reactions; elements which caught their eye; tone; and content. They were then asked how they would design materials to appeal to young people.

In general, the findings suggested that young people were comfortable discussing the everyday issues which can affect their mental well-being. However, the term 'mental health' was not very well understood and was associated with serious mental health problems rather than everyday problems and coping strategies. This latter finding was particularly reflected in the results of the cartoon completion task in which a mental health workshop for young people was not seen to be at all relevant to them as they were not 'mad' or 'psychos'. This suggests that in any materials aiming to promote mental health, the word 'mental' needs to be underplayed.

The findings suggested a number of common sources of stress (barriers) and a number of associated coping strategies (facilitators). Stresses highlighted by young people fall into three categories: those which are everyday and easily identifiable (examination pressures; falling out with friends; boredom) labelled 'Level 1'; those which are slightly less common and more serious (bullying, lack of money; self-confidence; divorce) labelled 'Level 2'; and those which are more serious and are outside most young people's experience (bereavement; drugs; rape; pregnancy) labelled 'Level 3'. Similarly coping strategies identified by young people were divided into two groups: talking to friends and solitary activities (e.g. listening to music; writing things down; having a long bath; physical activity; eating chocolate; sleeping) were labelled as 'Level 1'; and talking to an adult/person in authority was labelled as 'Level 2'. For 'Level 1' problems young people could easily identify and elaborate on the strategies that

worked for them. However, for 'Level 2' and 'Level 3' problems young people often have difficulty in expressing what their coping strategy would be.

Several potentially important gender differences in coping strategies were highlighted in this study. Young women were more likely to talk to friends, be positive and optimistic in their use of coping strategies and to engage in things to 'indulge' and 'enjoy' themselves (e.g. eating chocolate). They also seemed to be more familiar with the range of coping strategies available to them. Young men were more likely to take part in solitary activities in the first stage of dealing with a problem or to ignore the problem until it was impossible not to, and were more likely to relieve their stresses by 'lashing out' (kicking/slamming doors; shouting at someone; kicking a football around).

Findings of the young people's evaluations of existing resources revealed several clear messages for future mental health promotion: standard leaflets hold no appeal; what to do should be emphasised rather than the problem itself; the resources should inform indirectly and should primarily serve another purpose; messages should be short, punchy and positive; they should be directed at themselves rather than adults; and they should be designed by young people for young people.

The reviewers judged this study to meet four of the seven quality criteria. Particular shortcomings were that it did not clearly describe how young people were recruited into the study and who may have been excluded, and that it appears to have been done without any explicit reference to previous research. Whilst the methods used to collect data are very clearly presented and the researchers appear to have taken care to communicate well with young people, the report's lack of description about methods used to analyse discussions is problematic. It left the reviewers concerned that the results might not represent the actual range of views and opinions heard within the groups.

Nonetheless, this study is extremely valuable in providing us directly with young people's opinions on the content and format of health promotion materials: what these should say and how they should say it. The need to avoid using the word 'mental' and to make resources discrete and useful are clear messages. More broadly, the study describes what young people know about coping strategies for difficult situations, which is one step on from simply getting them to describe their experiences of difficult situations.

A survey of the mental health concerns of 14 to 15 year olds was carried out to inform the development of a teachers' resource pack (**Bowen, 1997**). This study is reported in a short article in a nursing journal. The study arose from a multi-agency working group chaired by the author, the clinical team leader for school nursing for a local NHS Trust. The group was concerned by the suicide and self-inflicted injury rates in the South Tees area being 19-30% higher than the national average.

A questionnaire was completed by 80 pupils attending a South Tees comprehensive school. The school was chosen because it had a had a full-time nursing sister. No details are given as to whether or how pupils were selected and the final sample is not described, although from the results it is clear that both sexes were involved. The format and content of the questionnaire are also not described, although the study presents both percentage figures and quotations, suggesting the use of both fixed and open response questions. The

questionnaires were tested on a small group of teenagers. Members of the working group distributed the questionnaires in personal and social education lessons, read the questionnaires out loud and appeared to take part in further discussion with the students. The study's results are presented in text format only under five headings: leisure and friends; attitudes to illness; dealing with bereavement; home life and feelings about school. In only a small number of cases does the author present the proportion of the sample giving a certain response. Most responses are presented as being made by 'nearly all', 'several', 'most' or 'more' of the sample.

Figures are given in the text for the percentages worrying about meeting parental expectations at home (49% and 47% of girls and boys), worrying about feeling compelled to experiment with sex (19%), being unhappy with their weight (68% and 32% of girls and boys), feeling that school is safe and comfortable, or 'OK' (65% and 59%) and concerned about having an illness that affects them all the time (12%).

Young people were asked who they could talk to about problems: while 'most' felt they would be able to talk with parents, 'more' said they would choose a friend. Only two thirds said they felt able to talk about their feelings and 17% felt they had no one with whom they could talk.

Several factors were identified by the young people as influencing their feelings. Nearly a third said bereavement or loss of a friend had made them unhappy, angry or confused, and a third said having a step-parent and feeling different to friends made them unhappy. Just under half of pupils of both sexes worried about not meeting parental expectations at school and at home. 'Several' pupils said that teachers influenced the way they felt, which included feeling terrified or put down. It is unclear how the study researchers have interpreted these and other findings.

This study suggests that self-esteem and self-image, family and personal relationships, loss and bereavement and teachers' and parents' expectations are all potentially important barriers to address with mental health promotion initiatives. There is some evidence that aspects of life in these areas are causally linked by young people to other negative feelings.

The study was rated as meeting two methodological quality criteria only. The low level of reporting of the methods makes independent interpretation extremely difficult. No account is given, for example, of assurances about confidentiality, which might be expected to be important, given that a school nurse and other health professionals were involved in the study's working group: participants might have wanted to modify their answers if they had felt any were socially unacceptable or might have implications for how they were individually treated. The incomplete presentation of the study's questionnaire and data analysis also leaves the reader unsure as to how well the results presented represent the views of the young people surveyed.

7.SYNTHESIS ACROSS STUDY TYPES

Outline of Chapter

This chapter synthesises the findings from the different sections of the report. This is a particularly challenging exercise, in view of the different types of research included. Specifically the chapter looks at:

- *in what ways the barriers to mental health **identified by young people** are **similar** to or **different** from those addressed by **interventions***
- *the extent to which the **facilitators** of mental health identified by young people have been used to **develop interventions** aimed at promoting young people's mental health.*

The chapter will be useful to all audiences (practitioners, policy specialists, researchers, health care consumers) as it draws together the evidence from the mapping exercise, and the intervention and non-intervention studies described in the previous chapters of this report to provide a composite picture of the barriers to, and facilitators of, mental health. In particular,

- ***practitioners, policy specialists and health care consumers** are likely to find useful the examples presented of effective interventions which have addressed issues expressed by young people as either barriers or facilitators (e.g. the issue of dealing with loss discussed under the theme of 'relationships' in section 7.2).*
- ***researchers and policy specialists** may find useful examples of mismatches between what young people say is important to their mental health and soundly evaluated effective interventions which have addressed such issues (e.g. talking to friends as a coping strategy investigated in section 7.3). These highlight promising interventions to build on in mental health promotion research and development.*

Key Messages

- *Effective interventions which addresses the barriers or builds on the facilitators young people were identified in four areas: the school; physical and material resources; relationships with family and friends; and the self. Effective interventions which built on the coping strategies used by young people were also identified. Gaps were highlighted in each of these areas.*
- ***School:** Effective interventions which address student concerns about teachers were identified. No evaluated interventions (effective or otherwise) were identified which addressed young people's concerns about workload or academic achievement and engagement in school.*
- ***Physical and material resources:** No evaluated interventions considered in the in-depth review were identified which addressed young people's concerns about future employment/unemployment and*

financial security; having access to basic rights, resources and support; or adequate leisure facilities. Several potentially relevant and high quality outcome evaluations were included in the descriptive mapping.

- **Relationships:** *Effective interventions were identified which addressed young people's concerns about parental divorce and conflict; feeling bad because of bereavement; and concerns about peer rejection. A major gap was addressing concerns about violence and bullying, although three potentially relevant and high quality outcome evaluations were included in the descriptive mapping.*
- **The self:** *Effective interventions were identified which fostered young people's self-esteem and which may help them to address concerns such as fears for the future and ability to take action/be in control and negative feelings around achievement and physical appearance. However, no effective interventions were identified in the in-depth review which explicitly addressed these concerns. Potentially relevant and high quality outcome evaluations which focused on eating disorders, anxiety or stress were identified in the mapping.*
- **Coping strategies:** *Effective interventions were identified which used coping strategies used by young people, most notably physical activity and relaxation. A major gap was the identification of effective interventions which aimed to foster talking to friends. Potentially high quality outcome evaluations examining the effectiveness of 'peer counselling' were identified in the mapping.*

7.1 Conducting the synthesis

The synthesis was carried out by four of the report's authors using a matrix. This laid out key themes expressed by young people regarding perceived barriers and facilitators alongside descriptions of systematic reviews and outcome evaluations included in the review and found to be sound. (See Appendix H.)

The views of young people were examined for common and distinguishing characteristics: the following four broad thematic areas are: school; material and physical circumstances; relationships and self. The barriers identified by young people were grouped according to these themes, and formed the first column in the synthesis matrix. Facilitators were grouped in a similar way to create the second column, and then further grouped according to whether young people had identified them as things that could or should be done to promote mental health; can influence mental health in a positive way; young people do to feel better or good about themselves; or relate to talking to others about feelings or problems.

The themes represent amalgamations of the more specific categories used to describe barriers and facilitators within this review's mapping exercise: 'relationships' refers to most 'interpersonal' and 'family factors'; 'self' encompasses most 'psychological factors'; 'material and physical circumstances' describes 'structural', 'physical' and 'socio-cultural factors'. The final theme, 'school' contains a variety of barriers and facilitators

associated with the self, relationships and material and physical circumstances and illustrates how factors arising from the individual (e.g. 'psychological' factors), community (e.g. 'interpersonal' factors), and societal level (e.g. 'structural' factors) interrelate within a community setting.

Interventions evaluated by sound outcome evaluations or included in good quality systematic reviews reviewed in-depth in chapter 5 were then scanned to see whether they aimed to address those barriers to mental health identified in the young people's views studies, or build on the facilitators of mental health identified in these studies. When a review or outcome evaluation addresses a barrier or facilitator it was listed in a third column in the synthesis matrix, alongside the barrier that it addressed. Where mismatches were identified, the authors searched for interventions evaluated in the earlier mapping exercise.

7.2 Matching young people's views to evaluated interventions: what helps them feel bad or feel better?

It was possible to find matches between areas identified as negatively influencing mental health and those addressed by the reviewed intervention studies. There were differences between the different barrier themes, however. In particular, whereas reviews and outcome evaluations addressed the areas of school, relationships and self; none addressed barriers classified primarily as being of a material or physical nature.

School

This theme contained a variety of barriers and facilitators identified by young people. These were related to teacher's behaviour towards young people (e.g. showing a lack of respect, not being a good source of self-esteem); academic achievement and engagement in school (e.g. doing badly in school, the boredom and monotony of school); and stress and workload ('stress of having too heavy a workload that eats into free time', 'examinations').

Several of the reviewed studies were concerned with improving relations between teachers and young people. One of the conclusions of the meta-analysis of primary prevention programmes for young people carried out by Durlak and Wells (1997) was that interventions to modify the psychosocial aspects of the classroom could be effective, although to a limited degree. These interventions are described within the review as promoting supportive relationships between students and teachers, and social skill and cognitive development. For example, an intervention found to be effective in reducing aggression in boys and self-destructive behaviour in girls, involved modifications to classroom curricula and teacher-student relationships and promoted parental involvement (Weinstein *et al.*, 1991). The views of young people which suggest that teachers are not appropriate people to talk to about their feelings or problems have not been taken up by interventions studies. In fact, many of the interventions described throughout the matrix were provided by teachers (seven of the 14 outcome evaluations reviewed in-depth and three of the five sound outcome evaluations).

Workload was identified as a barrier in several different ways but it, too, has not been addressed directly by any of the outcome evaluations found to be of high quality in the in-depth review or reviewed by high quality systematic reviews,

either in terms of dealing with stress associated with high workloads or in terms of modifying workloads to make these more manageable. The coverage of this area by intervention studies was therefore examined further by looking at the mapping exercise. A further 18 outcome evaluations were found that focused primarily on stress and anxiety and so had been excluded from the in-depth review. Twelve of these were classified as potentially sound and therefore have the potential to provide reliable conclusions on effectiveness (these are listed in the section on self below). Four (Kiselica *et al.*, 1994; Schinke *et al.*, 1987; Wehr and Kaufman, 1987; Werch *et al.*, 1988) measure academic achievement as an outcome.

Durlak and Wells (1997) also examined interventions that aimed to help young people through the transition between schools, finding these to be of moderate effectiveness. Since transitions as such were not identified as problematic by the studies of young people's views, it is unclear as to whether or how these interventions might address young people's own concerns, other than by having the general potential to reduce school-related stresses. They may also address young people's concerns about loss which could arise as a result of moving to a new school (e.g. losing old friends).

Material and physical circumstances

As noted above, there were no high quality outcome evaluations of interventions in the in-depth review that addressed material or physical barriers or facilitators. There were concerns about future employment/unemployment and financial security; having access to basic rights, resources and support; and leisure facilities. The barrier identified by young people that would seem the most amenable to intervention is 'having nothing to do'; this could be addressed by building on facilitators they identified, such as 'physical activity', 'having fun' and 'solitary past-times'. This kind of approach has indeed been evaluated: one of the 14 studies included in the in-depth review but excluded on quality grounds involved a peer-counselling programme available in a youth drop-in centre that also provided creative and social activities (Carty, 1991).

There may be other studies relevant to this theme which were not reviewed in-depth. A further 26 studies identified as part of the mapping exercise but excluded from the in-depth review focused on structural or socio-cultural factors. Only nine of these, were classified as potentially sound (Cauce *et al.*, 1994; D'Andrea, 1994; Gabriel *et al.*, 1996; Lamothe *et al.*, 1995; Pavlak and Kammer, 1985; Paxton, 1993; Swisher *et al.*, 1993; Walsh and Hardin, 1994; Wiist *et al.*, 1996). In addition, 10 evaluated interventions excluded from the in-depth review used material components to promote mental well-being, such as environmental modification, improved resource access, legislation or regulation. Seven of these were classified as potentially sound (Cauce *et al.*, 1994; D'Andrea, 1994; Gabriel *et al.*, 1996; Martz and Bazzini, 1999; Ramsey *et al.*, 1989; Swisher *et al.*, 1993; Wiist *et al.*, 1996).

Relationships

Barriers identified by young people that fall under this theme can be split into those involving family members and young people's relationships with friends and their peer group.

The first of these kinds of barriers has been addressed by high quality evaluated interventions. One of the facilitators identified as something that could be done to promote mental health is work around the subject of loss. An evaluation of a family bereavement intervention (Sandler *et al.*, 1992) was included in the systematic review conducted by Hodgson and Abassi (1995). The reviewers concluded that this intervention, which measured young people's depression and conduct disorder as outcomes, was effective.

Arguments and conflict between parents were also identified as problematic by young people. There are some studies which examine interventions to help young people with parental divorce. Durlak and Wells' (1997) review concludes they are of limited effectiveness. Parents not understanding was also identified as a problem. The same review looked at 10 evaluations of interventions to train parents in child development and concluded that these were not effective.

Families were seen by young people as being potential facilitators as well as barriers; this is addressed by an intervention where family members were taught to build self-esteem in each other and themselves (evaluated in Bredehoft and Hey, 1985). The intervention was judged to be effective for some outcomes by its authors. However, the reviewers judged this intervention to be unclear in its effects. This particular facilitator would seem to warrant further evaluation.

Problems with low peer acceptance were identified by young people; this concern is addressed directly by two outcome evaluations reviewed in Hodgson and Abassi (1995). These reviewers concluded that a social skills training intervention (Bierman, 1986) and an academic and social skills intervention (Coie and Krehbiel, 1984) were both effective for short-term improvements in conversation skills and responses to peers and for cognitive competence and reducing peer rejection respectively.

One of the areas of concern to young people within this area that has not been addressed to any degree by evaluations subjected to in-depth review is the fear of violence or bullying. A reduction in bullying was one of several outcomes in one outcome evaluation (Berg-Kelly *et al.* 1997) included in a systematic review by Nicholas and Broadstock (1999). The intervention was described as a package of community-wide public health activities that aimed to reduce depression, suicidal thoughts, bullying, dissatisfaction with school and life and drug and alcohol use.

Ten outcome evaluations described in the mapping exercise but excluded from the in-depth review focused on crime, bullying or violence and three of these were classified as potentially sound (Bosworth *et al.*, 1996; Farrell *et al.*, 1996; Wiist *et al.*, 1996). These could be a source of further information on approaches to try in addressing these concerns. These studies were found as part of the mapping exercise despite the areas of bullying and violence not being a main focus for the study's search strategies. Further interventions that aim to address violence towards and between young people may well be identified in more specific searches.

Self

The barriers and facilitators identified by young people that fall under this heading again appear to have been addressed by a number of high quality intervention studies. There are barriers which relate to worries about the self, for example, negative feelings around achievement and physical appearance ('not feeling as if achieving', 'worries about physical appearance'), but also to expectations about the future and ability to take action ('not feeling in control', 'powerlessness', 'fears for the future'). Facilitators identified by young people include self-esteem and coping. In addition, young people identified a range of strategies they used when feeling bad or in order to feel good.

In terms of evaluated interventions looking at barriers related to perceptions about the self, it is not possible to see from the detail provided by reviews whether interventions have worked with either gender in relation to worries about physical appearance. It would be useful to see if sound outcome evaluations have addressed this area and, if so, what these suggest might be done to help young people who have negative experiences of their physical appearance. The mapping exercise identified nine outcome evaluations of interventions aiming to prevent eating disorders. In line with the review's inclusion and exclusion criteria, none of these were reviewed in-depth. Of the nine, seven were considered potentially sound. Six of these involved young women only (Killen *et al.*, 1993; Martz and Bazzini, 1999; Martz *et al.*, 1997; Moreno and Thelen, 1993; Paxton, 1993; Santonastaso *et al.*, 1999) and one (Buddeberg Fischer *et al.*, 1998) involved a mixed sex group.

More generally, self-esteem has been addressed in a large number of reviews and additional intervention studies found to be effective. One of the systematic reviews reviewed in this report (Haney and Durlak, 1998) examined interventions addressing self-esteem. The review found what is described as a range of interventions and concluded that these can have a modest effect, with interventions that have a major focus on self-esteem being more effective than those with a broader focus. Other reviews (Nicholas and Broadstock, 1999; Tilford *et al.*, 1997) also examined interventions promoting self-esteem, finding these to be effective. In addition, two further high quality outcome evaluations not included in any of these reviews feature interventions aimed at improving self-esteem. An intervention based around class teaching to recognise self-defeating thoughts and replace these with self-improving and self-reinforcing thoughts (Haldeman and Baker, 1992) was evaluated and judged by the evaluation's authors to be effective in terms of self-referral for further counselling and for knowledge. An intervention that taught family members to build self-esteem between themselves (Bredehoft and Hey, 1985) has already been described under the section on relationships above.

It is more difficult to see whether outcome evaluations have been conducted to address those barriers identified by young people that relate to expectations about their future lives. Of possible relevance is one study by Lamothe *et al.* (1995), reviewed and found to be effective by Hodgson and Abassi (1995). This evaluated an intervention that used social support to improve adjustment and social support in students aged 17 to 20 years. An intervention aimed at reducing anxiety (Hains and Szyjakowski, 1990) was included and found to be effective in Tilford *et al.*'s 1997 review. It is possible that further high quality studies exist investigating the impact of health promotion interventions on

coping and anxiety among young people. As mentioned above, 18 outcome evaluations focusing on anxiety or stress were identified through the mapping exercise but were not included in the in-depth review because they were not focused on suicide, self-harm, depression or coping. Twelve of these were classified as potentially sound and may thus have useful information on effectiveness (Ayres *et al.*, 1995; Boardway *et al.*, 1993; Carty, 1989; Dadds *et al.*, 1997; Hains, 1994; Hains and Ellman, 1994; Hains and Szyjakowski, 1990; Kiselica *et al.*, 1994; Ramsey *et al.*, 1989; Schinke *et al.*, 1987; Wehr and Kaufman, 1987; Werch *et al.*, 1988).

Another pattern evident from the synthesis matrix is that, while young people identify known mediators for suicide, self-harm and depression as barriers to mental well-being, suicide, self-harm and depression themselves have not been identified as barriers. It is not clear why this is so.

7.3 Matching young people's views to evaluated interventions: coping strategies

Strategies used by young people to feel good can be compared with the interventions deployed in high quality outcome evaluations and systematic reviews. Young people identify a wide range of ways in which they can help themselves feel good. These often include a combination of activities, for example sport, dancing, listening to music, sleeping, resting, and emotional expression. Some evaluated interventions had similar components; for example, the study by Koniak-Griffin (1994), cited in Tilford *et al.* (1997), used aerobic exercise and was found by these reviewers to promote self-esteem and prevent depression. The second study reported by Clarke *et al.* (1993) used behaviour training to get young people to increase their use of pleasurable activities and increase awareness of links between activities and mood level and to prevent depression. However, the evaluation showed no effect on attitudes, reported behaviour or depressive symptomatology. Kahn *et al.* (1990), included in the review by Hider (1998), evaluated a school-based intervention consisting of cognitive behaviour and relaxation therapy. The authors of this review concluded that the intervention led to improved depression scores.

Talking to others featured as one of the main strategies young people said they used to help them cope or to help themselves feel good or better. Although young people did express a desire to talk to adults (health professionals and (female) family members, rather than teachers), significant others were most often friends, especially for 'everyday' sources of stress. This suggests that facilitating the exchange of advice and support between friends may be an effective intervention strategy. None of the interventions included in this review built on this strategy, although one of the soundly evaluated and effective interventions does provide access to advice and counselling (Haldeman and Baker, 1992). A 'peer counselling' intervention by Carty (1991) was one of the nine outcome evaluations deemed to be 'not sound' in our in-depth review. This intervention utilised peers in providing support and leading recreational and cognitive developmental activities in a community setting. The authors claimed it was effective in developing coping skills, but the reviewers judged it to be unclear in its effects due to the non-equivalence of the intervention and control group at the start of the intervention.

'Peer counselling' is a very common intervention strategy in Canada and the USA, and we identified an additional thirteen outcome and/or process evaluations in our mapping exercise which evaluated this type of intervention specifically for improving mental health. These were excluded from our in-depth review, as they were not specifically about suicide, depression, self-esteem or coping. Only six of the 13 studies were classified in the mapping as being 'potentially sound' (Bry and George, 1980; Carty, 1989; 1993; Faubert *et al.*, 1996; Martz *et al.*, 1997; Royse, 1998). This suggests that few peer counselling interventions have been rigorously evaluated for their effectiveness. There is thus a clear research gap in terms of developing and evaluating ways of facilitating the exchange of advice and social support amongst young people.

It is worth briefly considering why young people have mixed feelings about talking to adults as facilitators of mental health. There were several main issues here: adults were seen as more appropriate when experiencing a less familiar or more serious problem; adults were felt not really to understand what matters to young people; there was a fear that the worries expressed by young people would not be taken seriously by adults; and related to this, that their own worries were not important enough. Thus an alternative to facilitating the exchange of advice and support between peers would be to provide training for adults in communication and listening skills so that young people may feel more inclined to talk to them when under stress. This links to the direct recommendation highlighted by young people themselves - providing more resources to ChildLine, a service provided by adults which is clearly valued by some young people. None of the interventions evaluated by studies included in the in-depth review or the mapping exercise directly aimed to train adults in skills to facilitate communicating with and listening to young people.

Although most young people said that talking to other people was for them a good way of coping/making themselves feel better, a substantial minority felt unable to talk about feelings; did not want to talk to others; did not think talking would help; or thought that other coping strategies would work better. These views came mainly from young men, suggesting that interventions which aim to facilitate young people talking about sources of stress may not be especially welcomed by young men.

8. DISCUSSION

Outline of Chapter

This chapter considers the implications of the findings of the review for current policy and practice and future research, setting the context for the conclusions and recommendations of the review. It ends with a reflection of the methods used to conduct this review and a consideration of their implications for conducting future systematic reviews.

The chapter will be useful to all audiences (practitioners, policy specialists, researchers, health care consumers), particularly section 8.1 which discusses what initiatives have been found to work, through high quality evaluations, in the promotion of young people's mental health. More specifically:

- ***Researchers** and others may be interested in the discussion of the extent to which young people have been consulted in the development of interventions and services (section 8.1); and in including our reflections on the methodology used to conduct the review, the strategies developed for the critical appraisal and data extraction of young people's views studies, and the integration of findings from diverse study types (section 8.5).*
- *For **policy specialists** and **practitioners** section 8.3 will be the most relevant as it contains an explicit discussion of the findings of the review in terms of current policy and practice.*
- ***Practitioners and health care consumers** might be most interested in discussion of the issues relating to how mental health can be promoted in schools (section 8.4) and young people's conceptions of the terms 'mental health' and 'mental illness' (section 8.3).*

8.1 Can mental health promotion be effective?

Although the evidence-base is currently limited, this systematic review has found that interventions to promote mental health and prevent mental ill-health have been, under a variety of different circumstances, demonstrated to be effective for a variety of outcomes. However, many other tested interventions show no or unclear effects, and some even show harmful effects. Other interventions have yet to be tested in a rigorous way. A clear picture of what relates to success or failure is therefore currently lacking.

This picture is reflected in the systematic reviews included in our in-depth review which varied in the confidence of their conclusions about mental health promotion. For example, Durlak and Wells (1997) go so far as to suggest that the majority of participants who receive primary prevention programmes will experience positive changes in mental health outcomes. This finding is even more remarkable when it is considered that the young people who took part in such studies were not diagnosed with a mental health problem and may not be expected to improve dramatically. Putting their results in context, Durlak and Wells suggest that the effectiveness of primary prevention of mental health problems with young people compares well with the effectiveness of other

treatment and prevention interventions within medicine and social care. However, Nicholas and Broadstock (1999) were considerably more cautious in their conclusions, suggesting that, although there is a clearer picture about 'what works?' in the areas of substance use and conduct disorders compared to the areas of mood, anxiety and eating disorders, interventions to promote mental health are in general limited in their effectiveness.

Despite this, there were several clear messages to emerge from the systematic reviews and the newly identified outcome evaluations regarding the prevention of suicide and depression and the promotion of self-esteem. The evidence does not support the implementation of interventions which explicitly focus on suicide prevention. As Ploeg *et al.* (1996; 1999) have found, school-based interventions have been poorly evaluated, and results suggest limited benefits and even harmful effects, for example, increasing a sense of hopelessness and legitimising suicide as a strategy of dealing with problems. This calls into question whether it is appropriate to discuss suicide directly in the classroom. Research is required to ascertain the most appropriate and least harmful ways in which this issue can be dealt with.

The two high quality outcome evaluations targeted at the prevention of depression demonstrated only short-term changes in depressive symptoms. One study, which evaluated a low intensity informational approach to depression detected limited benefits (Clarke *et al.*, 1993). This led to a second study evaluating a higher intensity, more pro-active approach. However, as with the first intervention, limited effects were observed, leading the authors to conclude that both interventions may have been too short, or alternatively the sample size may have been too small to detect an effect.

The results of tested interventions to promote self-esteem and self-concept are a little more positive. Evidence from systematic reviews suggest modest effects, although benefits tend to be bigger where the promotion of self-esteem is the main focus of the intervention (Haney and Durlak, 1998). One relevant outcome evaluation included in this report detected short-term benefits for knowledge relating to strategies to increase self-esteem (Halderman and Baker, 1992), yet did not measure actual self-esteem. Further studies measuring this outcome directly with longer term follow-up are therefore required.

Other clear messages from the broad review by Durlak and Wells (1997) concern the likely magnitude of impact of different types of interventions to effect changes in a range of mental health outcomes. The results of their meta-analysis suggest that small effects can be expected from the following interventions: those which include modifying some aspect of young people's 'psychosocial environment' (e.g. improving teacher-pupil relations); those which aim to ease the transition from primary to secondary school; those which include parent training (e.g. educating parents about child development); and those which aim to help young people cope with parental divorce. Medium effects may be expected from: interventions to help young people cope with the anxiety of medical and dental procedures, and interventions which use behavioural techniques rather than techniques such as counselling or discussion (e.g. modeling, role-playing). Large effects may be expected from interventions providing support to first-time young mothers.

There may be many reasons why some interventions show bigger effects than others, and why some show no effects. The above discussion points towards several reasons. Other highly plausible reasons include a failure to take into consideration the views and needs of different groups of young people when developing and delivering interventions (Peersman, 1996; Shucksmith and Hendry, 1998) and a failure to target the theoretical or empirical determinants of mental health (HEA, 1997). Only 7% of the outcome evaluations featured interventions which had been developed in partnership with young people. In relation to the latter point, models of mental health promotion suggest that interventions should include strategies which target the wider structural barriers to, and facilitators of, mental health. We did not identify any high quality evaluations which tested the impact on mental health outcomes of interventions targeting such barriers and facilitators.

Because the evidence-base is currently thin, it is not possible to be make more specific recommendations or to be confident that an intervention demonstrated to be effective in one context will necessary be effective in another. A lack of long-term follow-up and failure to describe interventions adequately and/or to conduct an integral process evaluation compounds the problem of a small evidence-base. For example, conducting an integral process evaluation can help to illuminate how or why an intervention worked or did not work (Coyle *et al.*, 1991; Zaslou and Takanishi, 1993). Only 24% of the outcome evaluations included in the mapping stage of this review conducted an integral process evaluation. One consequence of the failure adequately to describe interventions either in systematic reviews or in reports of outcome evaluations was that it was often difficult to work out exactly *which* barriers and/or facilitators the intervention was aiming to modify. A problem, particularly for the UK context, is the lack of rigorous evaluations of local interventions. Only 5% (n=9) of intervention studies were carried out in the UK and none of these made it into the in-depth review. These problems are not specific to this particular review. Many other reviews of mental health promotion, and of health promotion in other areas, have come to similar conclusions (e.g. Lister-Sharp *et al.*, 1999; Oakley *et al.*, 1995d; Tilford *et al.*, 1997).

A key part of policy and practice surrounding promoting young people's mental health in the future therefore, will be concerned with creating opportunities for newly developed interventions to be rigorously evaluated according to both process and outcome as part of a co-ordinated research programme. These issues are discussed in more detail later. Firstly, we consider some of the insights gained from our synthesis of studies examining young people's views.

8.2 Young people's views

As indicated above, the findings of the part of this review which examined intervention studies suggest that the views of young people have not often been sought in the planning and development of mental health promotion. This is particularly striking when considered in the context of the studies examining young people's views on the barriers to, and facilitators of, their mental health: young people have plenty to say on this topic. Looking across the intervention studies and the studies examining young people's views, there were some matches between young people's own views on barriers and facilitators and the kinds of interventions that have been implemented and evaluated, but these matches may be largely fortuitous, since only 7% of interventions evaluated for

their effectiveness provided a role for young people in intervention development. As most of the interventions we identified for this review were conducted in the USA and developed by researchers, evidence about young people's mental health and how best to promote it is largely being determined by North American academics. There is clearly therefore much room for improvement in terms of systematically involving and listening to young people in the development of mental health promotion.

This conclusion is consistent with studies examining similar issues in other areas of health promotion (e.g. Harden and Oliver, 2001; Peersman, 1996). The lack of involvement of young people represents a conflict with the principles of empowerment and professionals/lay partnerships enshrined in definitions of health promotion (e.g. WHO, 1999b) and the wider health promotion research and practice literature (Peersman, 1998; Robertson and Minkler, 1994). The fact that young people currently do not seem to be given a voice partly reflects traditional academic and everyday views of 'children' and 'young people' which portray them as innocent, vulnerable and in need of protection; naughty and in need of discipline and guidance; or as second class citizens, less important than adults (Mayall, 1994; Moore and Kindness, 1998). Linked to this are the challenges involved for professionals when attempting to work in new ways requiring the development of professional/lay partnerships (Oliver, 1998). Greater attention should be paid to developing ways of consulting and working with young people in planning and evaluating mental health promotion, building on the work of a recently convened working group on promoting the health of young people (HEA, 1998).

The findings of this review can be viewed as a good starting point. Systematically reviewing studies which had elicited young people's views revealed several findings about what young people see as barriers and facilitators which may be useful in developing future mental health promotion. These include suggestions for priority topics or issues to focus on; a description of the factors and strategies which facilitate young people's mental health; and concrete suggestions for what could or should be done to promote young people's mental health in the future. These are discussed further in terms of their implications for policy and practice in the next section.

One further key message to arise from our synthesis of studies examining young people's views was their difficulty in relating to the term 'mental health'. The term was problematic for them in two main ways: the word 'mental' had very negative connotations and they had difficulty in relating the term to their own experiences of feeling bad and feeling good (Armstrong *et al.* 1998; Porter, 2000). There was a clear message that any kind of intervention to promote mental health should avoid this term (Porter, 2000). These difficulties may reflect the emphasis that has been placed until recently on the prevention and treatment of mental illness rather than on the promotion of positive mental health (Hodgson and Abassi 1995; Tilford *et al.*, 1997).

Some of the difficulties in moving towards mental health promotion strategies which incorporate notions of positive as well as negative mental health have been examined by Pavis *et al.* (1996) in their study of 'lay concepts' of mental health. They argue that it is only by understanding the meanings people attach to positive mental health in the context of their everyday lives that effective support strategies can be developed. In their study, people found it difficult to

talk about what factors influenced their achievement and maintenance of positive mental health: it was like asking them to talk about something which they ignored or took for granted. People did not use the term 'positive mental health' but instead referred interchangeably to concepts such as 'happiness', 'contentment' and 'well-being'. This resonates with the way young people responded to talking about what affects their mental health in the studies included in this review. Often the studies had to use lines of questioning which did not involve the explicit use of mental health in order for the young people to engage with the research. Thus, a sound knowledge of how young people understand concepts such as 'mental health' and 'positive mental health' is essential to inform the planning and development of mental health promotion.

8.3 Implications for current policy and practice

The main policies which are wholly or partly explicitly concerned with promoting the mental health of young people are the NSFMMH and the National Healthy Schools Standard (NHSS). These provide national standards to work towards and overall frameworks to work within, but provision and delivery of specific interventions are to be determined on the basis of local needs assessments and evidence of 'what works'. The fact that these policy initiatives do not prescribe which interventions to implement but specify that interventions should be implemented according to local need, is broadly consistent with the recommendations of this review that interventions should be based on the views of young people. But services may find it difficult to fulfil the requirement of developing an 'evidence-based' mental health promotion strategy (DoH, 2001) given the lack of good quality evidence. There is little in the National Service Framework for Mental Health (DoH, 1999a) or the subsequent guide to implementing it (DoH, 2001) about what to do in these circumstances. One way forward may be to recommend that services work in partnership with researchers to build the evidence base in the future. This review is therefore a useful resource for local (and national) teams responsible for implementing standard one of the National Service Framework for Mental Health and the National Healthy School Standard (DfES, 1999) as it highlights interventions for which there is evidence of effectiveness and uses young people's views as a starting point for the kinds of interventions which look promising but currently lack robust evidence of effectiveness.

A key part of implementing standard one of the National Service Framework for Mental Health is to work within the broader remit of tackling inequalities in health and preventing social exclusion (DoH, 2001). To understand how the results of the review may be used in this context the following sections map current policies and policy initiatives against the evidence-base synthesised in this review. Using young people's views as a starting point, it looks for cross-government policy and policy initiatives which match young people's views and examines whether the review found any evidence to support the effectiveness of such initiatives. This discussion is laid out according to the four themes applied in the synthesis across study types - the school, practical and material resource, relationships, and the self. Within each of these, attention is paid to action for all young people and for those who are especially vulnerable or at risk (DoH, 1999a).

The school

Young people's views highlighted the focus of school-based barriers and facilitators on teachers (e.g. the way they behave towards young people; as a source of support); academic achievement and engagement in learning (e.g. doing well/badly in school; the boredom of school); and stress and workload (e.g. examination stress; workload eating into free time). The inter-related nature of these three aspects of schools lends support to the NHSS emphasis on taking a 'whole school approach' (DfES, 1999). Efforts to raise academic achievement need to be balanced against young people's concerns about stress and workload and possible pressures on teachers to privilege academic progress in favour of pastoral support. The systematic review by Tilford *et al.* (1997) recommended that the promotion of self-esteem should be integrated into a whole school approach as well as through specialist activities in personal, social and health education classes. This fits in with one of the overall conclusions of a recent systematic review of health promotion in schools that a multi-faceted approach is more likely to be effective. The aim would be to adapt the general ethos of the school, including parental involvement, in combination with initiatives at the classroom level (Lister-Sharp *et al.*, 1999). Whilst the 'whole school approach' seems likely to be effective and success has been documented (e.g. Rivers *et al.*, 2000), it must be noted that there is currently little evidence which reliably links such an approach to improvements in mental health or other outcomes (e.g. Lister-Sharp *et al.*, 1999).

Young people's concerns about teachers not being a good source of emotional support or self-esteem are indirectly addressed by the 'Healthy Schools, Healthy Teachers' component of the Healthy Schools Programme', and by the NHSS and the 'Healthy Workplace Initiative' which all emphasise the need to take action to meet the professional development, health (including emotional health) and welfare needs of teachers. For example, the criteria for assessing school achievements in the NHSS include showing that schools have taken such action. All these initiatives are relevant routes for acting on young people's views on their teachers as barriers to, and facilitators of, their mental health. There is, however, currently little evidence from high quality intervention studies that the above initiatives are effective in promoting young people's mental health - we did not identify any intervention studies (of high quality or otherwise) which examined the impact of these kinds of interventions on pupil mental health outcomes. The systematic review by Durlak and Wells (1998) which found that interventions to modify psychosocial aspects of the classroom, including supportive relationships between students and teachers, could have a modest impact on a range of mental health outcomes. This lends support to pursuing this line of action within the context of further rigorous evaluations.

The fact that teachers were not always young people's preferred source of information, advice and support has implications for delivering PSHE and for the NHSS criteria for assessing school achievement which specify that schools should provide pupil support services for academic as well as health issues. One of the main aims of PSHE is to promote pupils' personal and social development, including, positive self-esteem and confidence (Qualifications and Curriculum Agency, 2000). Young people cite peers as a source of support and information, especially in terms of dealing with everyday sources of stress; peer education and peer counselling approaches may thus be more

appropriate and effective than in approaches delivered solely by teachers. Indeed the guidance for implementing the NHSS does highlight the importance of such approaches (DfES, 1999).

A systematic review of the effectiveness of peer delivered health promotion interventions across a range of different topic areas (Harden *et al.*, 1999a) found that this approach can be effective, but the pool of methodologically sound evaluations is small. This review identified a number of evaluations of peer counselling programmes, all from the USA or Canada where this is a popular intervention strategy. Only one of these met the inclusion criteria for the in-depth review in the current report, and our quality screening exercise found only a small number of the others to be of potentially high quality. Further rigorous evaluation of peer led interventions in schools for promoting mental health is therefore needed. Peer education and counselling cannot be considered an 'easy' option to pursue, as they require careful planning and monitoring and significant resources. Important considerations for the development of such interventions include: attention to the characteristics of young people recruited as peer educators/counsellors; young people who are highly individuated, have experience with the health topic/social issue in question and who are able to deliver messages in relevant ways may be better selection criteria than characteristics such as age, sex or academic achievement. Establishing the boundaries of working in partnership with young people and developing of strategies for dealing with potential conflicts arising from these partnerships is important. The major effects of peer education/counselling may be on the young people who deliver these interventions. There are potential benefits of 'reciprocal' peer education/counselling in which all young people alternate between providing and receiving peer education/counselling. Such approaches in schools settings may not reach those at most risk of adverse mental health outcomes (Harden *et al.*, 1999a).

There are many current policy initiatives which aim to raise the academic achievement of young people and re-engage disaffected learners, especially for socially excluded young people or those at risk of social exclusion. Coming mainly from the DfES, these initiatives include those which make extra resources available to the most disadvantaged areas of the country (e.g. Education Action Zones, Excellence in Cities); those which are specifically focused on groups of young people excluded from school or at risk of school exclusion (e.g. Learning Mentors, programmes for pastoral and academic support for those excluded from school); and those which are universal for all young people (e.g. the new Connexions Service). These initiatives directly address young people's views that doing well or badly at school can make them feel good or bad about themselves. Those responsible for implementing standard one of the National Service Framework for Mental Health could link into such initiatives for promoting mental health. Interventions to increase academic achievement were beyond the scope of the topic areas covered in the present review, so it is not clear to what extent these kinds of initiatives are supported by evidence of effectiveness or to what extent they are acceptable to young people. An important consideration for evaluations of these kinds of intervention will be to assess their impact on mental health outcomes as well as academic achievement.

This links into the final main aspect of school which is of concern to young people, that is stress and anxiety arising from school workload and examinations. We did not identify any specific policy initiatives which address these concerns, and it is possible that the above strategies to raise academic achievement could result in increased stress and anxiety for young people. As indicated above, the 'whole school' approach adopted by the NHSS is important here and could be used to address young people's concerns about examinations and heavy workloads. For example, the criteria for assessing school achievement in standard one include listening to the views of pupils and the need for schools openly to address issues of emotional health and well-being (DfES, 1999). Interventions to help young people cope with stress were not within the scope of our in-depth review but we did identify several potentially high quality outcome evaluations in our mapping and quality screening exercise which will be a good starting point for examining 'what works' in this area. This could be a priority topic for a further systematic review, perhaps jointly commissioned by the DoH and DfES.

Practical and material resources

The barriers and facilitators identified by young people in the area of practical and material resources related to future employment and unemployment; access to basic resources, rights and support; and access to leisure facilities and opportunities. Many of these, although not all, were described by young people who can be considered to be socially excluded or at risk of social exclusion. These concerns relate to a wide range of cross-departmental government policy initiatives and reinforce the observations of the NSFMMH that promoting mental health goes far beyond the remit of single agencies (DoH, 1999a).

This review found that young people's concerns about finding future employment could negatively impact on their mental health, a finding that is supported by studies examining the health impact of unemployment on young people. There are a number of current policy initiatives which aim to increase the likelihood of all young people securing meaningful employment, giving greatest priority to socially excluded young people or those at risk for social exclusion. The 'New Deal for Young People' from DfES and the 'Summer Activities for 16 Year Olds Scheme' from the DfES and the Department for Culture Media and Sport (DCMS) are specifically for young people who are not employed and have no plans to continue in full-time education; the 'Excellence Challenge' from the DfES aims to address the under-representation backgrounds in post 16 and higher education of young people from disadvantaged; the 'Connexions Card' and 'Education Maintenance Allowance', both from the DfES, aim to reduce the financial barriers to learning for young people from less well-off families; and the Connexions Service from DfES is for all young people to ensure a smooth transition into adult working life. Those responsible for implementing standard one of the National Service Framework for Mental Health could work with such initiatives. Whilst studies evaluating the impact of interventions to increase young people's employment opportunities *per se* were not within the scope of this review, we did not identify any studies evaluating the impact of such interventions on mental health outcomes. This represents a significant gap and is a priority area for future systematic reviews and new primary research. Of interest in this context, is a systematic review currently being conducted on the impact of financial circumstances on

engagement with post 16 learning under the evidence-informed policy and practice initiative in education, being co-ordinated by the EPPI-Centre³.

Similar implications for those implementing the NSFMMH arise for the barriers and facilitators identified by young people relating to access to basic rights, resources and support. 'Quality Protects' and the 'Children (Leaving Care) Act' from the DoH which aim to improve the life chances of looked after young people and to provide better support for young people after they have left care, and the 'Rough Sleepers Initiative' from the Cabinet Office are relevant policy initiatives here. Whilst these initiatives are in line with young people's views, and other studies which have linked poor mental health outcomes to aspects of care or being homeless (e.g. Craig *et al.*, 1996; Slegers *et al.*, 1998), we identified few studies evaluating the impact of these sorts of initiatives on mental health outcomes. For example, we failed to identify any studies evaluating the impact of interventions to promote the mental health of young people in care, and we only found one focusing on homeless young people (Cauce *et al.*, 1994). Whether this is because few studies have yet to be carried out in this area or because such studies were simply not picked up by our searches is not clear.

Increasing young people's access to leisure facilities and opportunities is a promising way of addressing the problem of 'having nothing to do', which was identified as having a negative influence on mental health, and building on the coping strategies described by young people. This lends support to several current policy initiatives and suggests useful strategies for those involved in implementing the NSFMMH and NHSS. Relevant policy initiatives are 'Sport for all' and 'Creative Partnerships' from DCMS which involve investment in rebuilding sports and arts facilities and increasing opportunities for young people to work with creative professionals and organisations. Such approaches have been evaluated by the studies included in this review. But only one of these was deemed to be in the scope of our in-depth review, a youth drop-in centre in the USA that also provided creative and social activities and was evaluated by Carty (1991); this was judged to be unclear in its effects because of problems of methodological quality.

Our review was therefore unable to obtain a clear picture of the evidence-base to support these kinds of interventions. However, a number of potentially high quality evaluations were included in our mapping and quality screening exercise, and these could be a good starting point for a further systematic review (perhaps jointly commissioned by the DoH and DCMS) to examine whether providing young people with increased opportunities for physical and creative activities is an effective strategy for improving mental health. Providing community facilities which increase young people's opportunities to participate in physical and creative activities can be thought of as a key part of enhancing the 'social capital' of communities. A key issue is the need to pay attention to the way in which such facilities are established and run, as simply providing facilities may not be enough (Campbell, 1999).

³ See the EPPI-Centre website for more details: <http://eppi.ioe.ac.uk>

Relationships

Barriers and facilitators in the area of relationships described by young people were centred on their concerns about bullying and rejection by peers; loss of friends and family (not necessarily through bereavement but through moving schools or moving house); and conflict between and with parents, arising from parents' physical and material circumstances (e.g. financial problems, physical or mental illness). Many young people said that they used (or wanted to use) their friends as a source of emotional and social support and some identified their families as important in this respect. We identified far fewer specific policy initiatives in this area, although some of the broader initiatives outlined under 'the school' above are a way of addressing these identified barriers and facilitators. For example, concerns about parental conflict could be dealt with in the PSHE curriculum or through pupil support services. Indeed, those responsible for implementing the NHSS or delivering the PSHE curriculum might want to use young people's views as a way of prioritising issues to address. For example, they could easily take up young people's suggestion that schools should provide interventions which could help them deal with 'loss'.

Other specific policy initiatives were identified in this area. Head teachers have a legal duty to prevent bullying and schools have been given guidance on how this policy can be drawn up and implemented. As this review was not concerned with examining the effectiveness of strategies to prevent bullying *per se*, we only expected to identify intervention studies which evaluated the impact of such strategies on mental health outcomes. We did not identify any of these kinds of studies. This could be considered a priority area for a further systematic review which would include studies evaluating the impact of anti-bullying strategies on a wide range of outcomes. Some interventions which may be relevant to the support of parents experiencing conflict with either their partners or their children. These include 'ParentLine Plus' which is being developed as a national free helpline, and an increase in financial support to organisations which provide advice and support to those experiencing relationship difficulties. We identified few studies for this review which examined the effectiveness of interventions supporting or involving parents. One systematic review concluded that interventions designed to train parents in child development were not effective for bringing about positive changes in the mental health of young people or children (Durlak and Wells, 1997). It is therefore not yet clear whether these kinds of current policy initiatives are able to impact positively on young people's mental health, and further primary research is required.

Other intervention studies included in this review which match young people's views on barriers and facilitators in the area of relationships highlight some concrete strategies which have been demonstrated to have small effects. Interventions to help young people cope with parental divorce have shown small effects (Durlak and Wells, 1997), and those which train young people in social skills have been shown to be effective in reducing peer rejection (Hodgson and Abassi, 1995).

It is clear from young people's views that social support is very important. However, few unambiguous messages about effective strategies for enhancing social support can be derived from the findings of the review. Although we

identified 16 potentially high quality outcome evaluations using social support as an intervention strategy, only six of these met the criteria for our in-depth review. Three were already included in other systematic reviews (which did not tend to highlight the effectiveness of social support interventions) and three were subsequently judged to be of insufficiently high quality. However, a clear message emerged regarding the effectiveness of social support for one group of young people thought to be at risk for social exclusion: evaluations of social support for pregnant young women revealed large positive effects on mental health outcomes (Haney and Durlak, 1998). A priority area for a future more focused systematic review may be to examine the effectiveness of social support for other groups of young people.

The self

Barriers and facilitators in the area of the self described by young people centred on concerns about physical appearance (especially, although not always, for young women) and feeling powerless/confident in being able to cope with the ups and downs of life. Like 'relationships' above, we identified very few specific relevant policy initiatives which focused on these issues, although many of those outlined so far may be capable of directly or indirectly addressing these barriers and/or building upon these facilitators. For example, while PSHE aims to promote the self-esteem of young people within schools, initiatives to promote academic achievement may indirectly promote self-confidence. As part of PSHE, schools could also aim to enhance young people's coping skills, building on the coping strategies young people say they use and recognising important gender differences (e.g. some young men prefer to use physical or creative activities as a coping strategy rather than talking to others).

Part of young people's expressions of feeling powerless and the negative impact of this on their mental health relates to their desire to be listened to and treated with respect (e.g. Gordon and Grant, 1997). Taking seriously the views of young people and consulting them about possible interventions to implement is very much a part of current policy initiatives. For example, one of the criteria for assessing schools for the NHSS includes listening to pupil views, and the NSFMM clearly highlights the importance of consulting with health care users. This should help to ensure that interventions are more acceptable to young people, and are more likely to meet their needs. However, enabling young people to have control over setting agendas and initiating action may also in itself be an effective intervention strategy for promoting mental health. This idea is supported by a recent study into social capital and health which found that 'high health' geographic areas could be distinguished from 'low health' areas by the existence of community linked activist groups which lobbied for change (Campbell, 1999). We only identified one outcome evaluation (Arborelius and Bremberg, 1988), not judged to be of high quality, which examined the effectiveness of such a strategy, indicating the need for primary research in this area.

Although concerns about physical appearance could cover a wide variety of issues, some young women were concerned about their weight, raising the issue of eating disorders and unhealthy weight regulation practices. We did not identify any current policy initiatives regarding the prevention of eating disorders. This may be a significant gap in current policy as we identified a

number of potentially high quality outcome evaluations examining the effectiveness of interventions to prevent eating disorders. Such a topic could be the focus of a more specific systematic review on promoting the mental health of young women which would examine the potential health gain of implementing such strategies.

Other issues: recognising diverse groups within 'young people'

The preceding discussion has identified some of the main policy and practice implications of this review, and has tried to tease out these implications for different groups of young people. One focus of the review was to assess the needs of socially excluded young people. This is in recognition that disadvantaged youths are more likely to experience poor health in general, and poor mental health in particular. However, only a third of the studies we found did focus on groups of young people who can be considered to be socially excluded or at risk of social exclusion; thus, few of the studies reviewed here discussed the implications for such individuals. Durlak and Wells (1997) found that provision of support to young mothers achieved large effects, although interventions aimed at young people experiencing parental divorce, who are potentially at risk for depression and other mental health problems, revealed much smaller effects. Some of the individual studies cited within systematic reviews showed benefits for disadvantaged groups; an example is providing social support for black youths in the USA (Tilford *et al.* 1997). Further, the majority of interventions reviewed here were school-based, and so could not reach young people who do not regularly attend school. There needs to be much more work done on the best way to reach these groups of young people. The policy initiatives which aim to focus on socially excluded groups need to be carefully evaluated for their success in reaching such groups. Gender, age and culture are other dimensions which may call for different intervention strategies.

8.4 Building the evidence base: lessons for the future

A major finding of this review is that the evidence-base for the effectiveness of interventions to promote young people's mental health is small. This presents a significant challenge for services involved in the promotion of mental health, as they are required by the NSFMH to develop evidence-based mental health promotion strategies. The preceding section suggested that one way to meet this challenge is for services to work in partnership with researchers to build the evidence base. This section makes recommendations as to how such initiatives should be evaluated. Such recommendations need to be supported by an appropriate infrastructure to increase opportunities for practitioners, policy-makers, researchers and young people (and when appropriate their parents) to collaborate; initiatives to increase the research capacity of social and public health scientists in evaluation techniques; and adequate sources of funding which allow for long-term follow-up and samples of sufficient quantity for studies to be adequately powered to detect intervention effects.

Evaluating effectiveness and appropriateness

There is a considerable lack of rigorous evaluation of effectiveness in the area of mental health promotion. Although we identified 185 outcome evaluations, only half of these were deemed to be 'potentially sound'. Of the 14 potentially sound outcome evaluations which fell in the scope of our in-depth review (and

were not already included in good quality systematic reviews) only five were deemed to be of sufficient methodological quality to produce reliable results about effectiveness. Of particular concern was the lack of any soundly evaluated outcome evaluations from the UK. Overall we only identified a total of seven outcome evaluations conducted in the UK and only four of these were classified as 'potentially sound'. This suggests that either well-designed evaluations are not being undertaken in this country, or that they are not publicly accessible.

Common problems with outcome evaluations included the fact that study groups were not always equivalent on socio-demographic or outcome measures at the start of the study, as well as failure to report data for all measures before the intervention began. Random allocation should facilitate study groups that are comparable on the known and unknown factors that influence outcome (Stephenson and Imrie, 1998), although it is recognised that this might not always be achieved, particularly if the method of randomisation is not truly random (e.g. alternate allocation based on odd or even dates of birth). One of the problems experienced by systematic reviewers is that reporting of allocation methods in primary evaluations can be ambiguous, with methods that purport to be random not strictly based on chance. In this review, a great deal of time was spent by reviewers where the reporting of allocation methods in studies was unclear trying to determine exact allocation method. The Consort Statement (Altman, 1996; Rennie, 1996), which sets out guidelines for the reporting of RCTs should hopefully raise standards, although the extent to which these guidelines, initiated to improve the reporting of clinical trials, will be adopted in the field of health promotion and social interventions is unclear. However, determining whether or not a study is truly randomised is not essential (for our purposes), in that the 'core' criteria used in this review to judge whether or not an outcome evaluation is sound stipulates that, whether randomised or not, studies must demonstrate baseline equivalence, or correct for non-equivalence in the data analysis.

The methodological shortcomings of the outcome evaluations in this review are similar to those found in other systematic reviews in health promotion. For example, previous reviews of peer-delivered health promotion, sexual health interventions for young people and for men who have sex with men, and a review of the effectiveness of workplace health promotion have found similar proportions of outcome evaluations to be 'sound', and a similar scarcity of sound outcome evaluations conducted in the UK (Harden *et al.*, 1999a; Oakley *et al.*, 1996; Peersman *et al.*, 1996; Peersman *et al.*, 1998). Recent reviews in the HEA's effectiveness series (e.g. Tilford *et al.*, 1997; White and Pitts, 1997) have come to similar conclusions.

One of the main findings of this review was that there have been few attempts to evaluate the impact on mental health outcomes of interventions which tackle the wider determinants of health, aiming to reduce inequalities and improve young people's material and physical circumstances. Such interventions are likely to be multi-faceted, combining, for example, education, with legislation and environmental modification. There are inherent problems in evaluating these types of initiatives. These have produced the suggestion that RCTs are not an appropriate evaluation method (Nutbeam, 2001) pointing to the possibility of making the best use of before and after assessments of 'naturally occurring experiments' (Macintyre, 2001). A crucial challenge is to reach some

consensus on the issue of the feasibility of using RCTs to evaluate the impact of such interventions.

The problems associated with evaluating structural interventions were discussed by the scientific advisory group appointed to assist the preparation of the Acheson report. The group's role was to examine the strength of the evidence used to support recommendations on reducing health inequalities (Macintyre, 2001). The policy recommendations submitted to the group by experts in the field were seldom supported by sound evidence for effectiveness. Nevertheless, sound evidence generated by RCTs does in some areas exist. The need for better evidence is all the more necessary because some initiatives might actually increase health inequalities, or do other harm (Davey Smith *et al.*, 2001). Macintyre and Petticrew (2000) explore some of the misconceptions about evidence-based policy and practice, including the assumption that the real world is too complex to evaluate using experimental methods and that social and public health interventions cannot do harm (see also Oakley and Fullerton, 1996; Oakley, 2000). Macintyre (2001) also provides examples of commonly used 'popular' interventions which are exposed as being ineffective or even harmful when the evidence from sound evaluations is taken into account. For example, the 'Scared Straight' intervention which aims to deter young people from crime is widely used in the US, but evidence from seven RCTs found that it actually increased delinquency rates (Petrosino *et al.*, 2000). Rather than adopting a defeatist attitude to evaluation using experimental methods, Macintyre argues that ingenuity should be employed to resolve some of the difficulties in assessing the impact of efforts to tackle the wider determinants of social and health problems. The establishment of several UK and international initiatives focusing on systematically reviewing the effectiveness of social interventions in fields such as education, criminology and social policy have the potential to stimulate methodological innovation and generate the 'ingenuity' required (e.g. Davies and Boruch, 2001; Oakley and Gough, 2000; Oliver and Peersman, 2001).

Gathering young people's views

The systematic examination and synthesis of the findings of these studies also offered considerable insight into different ways of eliciting young people's views and ways of involving them in the development of mental health promotion. For example, the aims, approach and methods used in some of the studies meant that they could only draw conclusions about the main concerns or worries of young people (Balding *et al.*, 1998; Gallagher *et al.*, 1992; Gallagher and Millar, 1996). These studies simply asked young people to rate a list of pre-determined items in terms of how much they worried about them. Although the findings of the studies provide a starting point for deciding which areas of possible concern to address, because the worries are presented somewhat out of context the study leaves lots of unanswered questions for the practitioner wanting to develop interventions. The findings do not tell us why things are worrying or in what way, or how they relate to everyday aspects of young people's lives.

There is a question about to what extent the studies included in this review have really engaged with young people's own views about mental health. As outlined earlier, data collection methods for examining views on mental health need to take into account the fact that young people may not necessarily be

using the term 'mental health' in the same way as researchers. This requires a thoughtful approach to data collection methods. For example, some of the studies tried a variety of methods to engage young people in the task of reflecting on what influences their mental health, such as ensuring appropriate use of language in framing questions (Aggleton *et al.*, 1995; Armstrong *et al.*, 1998); getting young people to invent a story line for a soap character (Porter, 2000); and asking young people to fill in a 'diary' about how they are feeling on one day (Gordon and Grant, 1997). Such methods allow researchers to explore not only the main barriers to, and facilitators of, young people's mental health, but also to ascertain why and under what circumstances these act as barriers or facilitators.

Finally, the studies of young people's views also raised the issue of at what level research which aims to inform the development of health promotion for young people is really involving them in the planning and decision-making processes. Only four of the studies actually directly asked them what they thought could or should be done to promote their mental health (in particular see Armstrong *et al.*, 1998; Gordon and Grant, 1997; Porter, 2000). All the other studies inferred what should be done indirectly from what young people said. The methods used in the above three studies could be used as a starting point when trying to work in partnership with young people.

8.5 Methodological issues in conducting this systematic review

This section reflects on the methods used for this review, including our 'novel' attempt to include 'qualitative' research in a systematic review and to synthesise findings across different study types.

The scope and boundaries of this review

This review was concerned with the prevention rather than treatment of mental illness. However, we recognise that the distinction between primary, secondary and tertiary prevention in mental health can be problematic. Primary prevention is concerned with intervening in apparently healthy populations, whilst secondary prevention (e.g. screening) intervenes with people who have 'sub-clinical' problems (i.e. before specific symptoms appear). Tertiary prevention, in contrast, aims to reduce the duration and impact of a mental health problem. In this respect it can be viewed as 'treatment'; often the terms are used interchangeably. Some interventions, such as cognitive behavioural therapy for depression, were excluded from our review because they were classed as treatment and therefore not within its scope. However, such interventions can be viewed as both treatment and prevention since they seek to prevent further occurrences of a problem. Future research could accordingly extend the scope of this review.

Related to the above, our focus on prevention meant that we excluded evaluations of interventions which targeted those with a mental health diagnosis. These individuals are likely to be socially excluded due to their mental ill-health (e.g. not able to work due to severe depression). Future systematic reviews which examine treatment as well as prevention should ensure that they include a focus on those young people at risk of social exclusion because of poor mental health.

Issues of scope also arise in relation to the criteria we used to select intervention studies for in-depth review. Outcome evaluations had to be focused on the prevention of suicide or depression or the promotion of self-esteem. This choice did not entirely match young people's priorities. Young people's views about what made them feel bad and what made them feel good revealed a wide range of factors, lending support both to broader conceptualisations of mental health which go beyond simply the absence of mental illness, and for models of mental health promotion which emphasise the need to tackle social and economic determinants. This supports the NSFMH which recommends that services need to link in with other relevant policy initiatives which aim to reduce inequalities and social exclusion. Some interventions which matched young people's views were not within the scope of our in-depth review of intervention studies. For example, interventions which focused on reducing stress or anxiety which may help young people to address their concerns about examinations and a heavy workload, did not make it to the in-depth review. Some interventions which may impact positively on young people's mental health such as strategies to increase academic achievement or programmes to increase access to leisure facilities, would not have made into the review at all unless they had measured relevant mental health outcomes. This highlights the importance of using a synthesis of views to inform the criteria chosen to identify and select studies for similar systematic reviews in the future.

Searching and retrieval of relevant studies

One of the challenges faced during this review was the sheer volume of literature we had to process. Of the 11,638 citations generated by literature searching, 948 initially met the criteria to be included in the mapping and quality screening exercise. Just over a quarter ($n=249/26\%$) of these studies were not available in time to be fully assessed for inclusion: this is a possible bias in the review and we found that around half of all the full reports that we *did* retrieve were subsequently excluded from the review. Assuming that the same proportion of the 'missing' reports would also have been excluded had they been retrieved, an estimate of the number of studies unavailable will be 124/13%. That is, one eighth of studies that were likely to have been included were not available in time. Key sources of bias which can be introduced through the searching process and the failure to identify and retrieve unpublished studies (which may be less likely to have found significant results) and studies published in languages other than English (e.g. Dickersin *et al.*, 1995). However, an examination of the studies which we did not retrieve revealed that in common with the reports which we had obtained, they tended to be formally published (i.e. in peer reviewed journals, book chapters), and were mostly from the USA. Thus, there did not appear to be any particular publication bias in the reports we were not able to obtain in time. However, we cannot be sure that our conclusions would not change had we been able to retrieve the remaining studies. There has been little empirical work conducted on this issue, but a study by Peersman *et al.* (1999b) on systematic reviews in health promotion may be relevant. They found that less sensitive searches (which identify a lower number of studies) reduced the possibility of reviewers being able to detect clear patterns for effective and ineffective interventions.

This raises the issue of how systematic reviews can realistically capture as much of the relevant literature as possible in the time available. The different

stages of this review (i.e. literature searching, critical appraisal and data extraction, synthesis and analysis), ran concurrently, in order to make best use of time and resources. Thus, whilst reports were being retrieved from libraries and inter-library loans processed, we were embarking on extracting data from the reports we had already obtained. As new reports were received, their bibliographies were scanned to identify other relevant studies, which were subsequently ordered, and so on. This was continued until, for the purposes of our analysis stage, a 'cut-off' point was necessary, beyond which no new material would be considered for inclusion. What this highlights is that the stages of a systematic review, far from being fixed, are fluid, requiring flexibility on the part of the review team in terms of when they perform various tasks. As systematic reviews are often eagerly awaited by users, particularly where the findings are expected to have substantial implications for policy and practice, it is perhaps inevitable that, a certain proportion of studies will be missed. A key issue for future methodological work is to monitor the extent to which this impacts on the conclusions and recommendations of systematic reviews.

Using other systematic reviews as 'data'

There were three reasons for using other systematic reviews in this report: to avoid duplicating the work of others; because this approach provides an overview of evidence in the area; and to reduce the number of individual outcome evaluations to be reviewed. However, the process was problematic because the level of detail provided in the reviews varied greatly. For example, Tilford *et al.* (1997) provided structured abstracts of each of the included primary studies, allowing the reader to observe, at a glance, the nature of the intervention, its provider, the outcomes measured, and the main results. In contrast, the meta-analysis by Durlak and Wells (1997) gave only limited details of the studies included. Given the tight word limits often set on articles published in peer reviewed journals, it is perhaps unreasonable to expect fine detail on each study. Nevertheless, there is a problem where conclusions are offered about effectiveness, yet little is known about the studies combined in the analysis. This could be likened to a so-called 'black box' effect, a criticism so often levelled at outcome evaluations where there is little evidence on the processes at work.

It could be argued that the purpose of reviewing reviews, or 'tertiary reviewing' is primarily to provide a general overview of a given topic area, and that knowledge of the particulars of each primary study are not necessary. However, our purpose in this report was to combine evidence from systematic reviews with that derived from other outcome evaluations not already included in systematic reviews. Our data extraction method for outcome evaluations is highly structured with a great amount of detail collected from each study, but far fewer details on the studies included in the systematic reviews were available. This raises the question of whether, for our purposes at least, it is worthwhile reviewing systematic reviews or whether it is more fruitful to review the relevant primary studies ourselves. Indeed, Hider (1998) in a review of suicide prevention studies recommends the reader to refer to the original study for full clarification of particular details.

Including 'qualitative research' in systematic reviews

The decision to privilege young people's own views about the barriers to, and facilitators of, their mental health has highlighted a number of useful lessons for the planning and development of future mental health promotion amongst young people. However, this decision has also posed a series of challenges for this systematic review and for systematic reviews of social interventions more generally, where these incorporate a wider range of 'evidence' than is traditionally considered for a systematic review. Different challenges occurred at each stage of the review process. In terms of searching, we found that routine methods of literature searching (e.g. bibliographic databases) were not very fruitful for locating studies of young people's views. Of the 12 studies of this type which we reviewed in-depth, over half were unpublished or from the 'grey' literature. This required making extensive use of personal contacts which was significantly more labour intensive. Often several phone calls had to be made in order to track down one report and, quite often it was only when we received a copy of the report that it became clear that it did not fit our inclusion criteria.

As there was no existing standardised way of extracting data and assessing the quality of these types of studies, the inclusion of studies of young people's views required us to develop new tools building on work on the development of criteria to assess the quality of non-experimental research. The studies usually employed cross-sectional survey methods using various methods of quantitative and qualitative data collection and analysis. Like the outcome evaluations and the systematic reviews, data extraction was often made difficult due to lack of detail on, for example, study sample, methods used and findings. This was often compounded by the fact that for some studies the only publicly accessible reports of the research were summaries of the research written for practice audiences. Although the quality of the studies varied enormously, and the quality assessment criteria distinguished studies of different quality, only two of the studies met all seven of the criteria we used. Common problems were a lack of detail given on the methods used to recruit the sample; characteristics of the sample obtained; methods used to elicit young people's views; and methods used to analyse the data. All of these are needed to enable the reader to judge two things: firstly, to what extent the findings may be an artefact of the methods used; and secondly, to determine the parameters within which the findings are applicable (e.g. 'type' of young people represented and not represented in the sample).

Another pertinent issue is the 'status' of studies examining young people's views in comparison to other types of empirical studies. Although we privileged studies of young people's views above others in terms of determining the kinds of interventions which are likely to be *potentially* both effective and acceptable, we privileged good quality outcome evaluations for determining the *actual* effectiveness of interventions. Thus our recommendations for the kinds of interventions that need to be developed and tested in the future are based on young people's views, whereas our recommendations about 'what works' in promoting young people's mental health are based on good quality outcome evaluations. For future reviews it may be important to consider what recommendations should be made when the views of young people and evidence from intervention studies clash; for example, when an intervention is shown to be effective but is simply not one that is acceptable to young people.

Synthesising across study types

This review has attempted to map the literature, extract detailed data, quality assess, and synthesise the findings from a range of different types of research evidence on the barriers to, and facilitators of, good mental health amongst young people. This has represented a significant challenge for systematic reviews which usually only include evidence generated from well-designed experimental research. In undertaking this challenge we have been able to build on a descriptive mapping of health promotion for young people undertaken by Peersman (1996). The mapping involved searching for and classifying different types of research (e.g. surveys, outcome evaluations) in a range of health topic areas (e.g. accidents, sexual health, healthy eating) with a view to summarising the implications of the research findings for health promotion with young people and identifying research gaps. The current review has taken this work one stage further by, applying explicit and transparent methodology to the data extraction and quality assessment of 'non-intervention' research, and by synthesising the findings of this research with findings from 'intervention' research. The review is, in some sense, a model for how the lessons learned from rigorous research evaluating the effectiveness of interventions can be combined with those from research aiming to examine what the public needs and wants.

As there is no precedent to the methods we have adopted in this review, we need to engage in a process of careful reflection about both the 'pros' and the 'cons' of our approach. In line with the principles underlying systematic reviews, we have tried to spell out in as much detail as possible how we searched for, classified and quality assessed studies included in this review, and have also tried to be as explicit as possible in how the findings of the studies have led to our recommendations. Although we used various methods to ensure that our review findings were not distorted by researcher bias (e.g. using two researchers independently to undertake many stages of the review), we cannot be sure that if we used different methods or a different team of researchers the conclusions of the review would be the same. Further empirical work building on our methods might usefully address these issues.

9. CONCLUSIONS AND RECOMMENDATIONS

The aim of the review described in this report was to survey what is known about the barriers to, and facilitators of, good mental health amongst young people with a view to drawing out the implications for mental health promotion amongst this group. The review has drawn together the findings from evaluations of mental health promotion interventions (either from good quality systematic reviews or primary studies) and studies which have elicited young people's views. A first major finding of this review is, whilst there has been a significant amount of research activity in this area, there is a scarcity of good quality research evaluating the effectiveness of mental health promotion, particularly in the UK. Despite this, the review did identify a small number of rigorous evaluations which have shown that a range of different types of mental health promotion can be effective in changing some outcomes for some groups of young people. What is not yet clear is what the key components of effective interventions are, whether there are any long term benefits, and to what extent conclusions about effectiveness are generalisable to other populations of young people.

A second major finding is that young people have clear views on the barriers to, and facilitators of, their mental health. These provide an important source of information which needs to be considered in any attempts to promote their mental health. When considered in conjunction with findings about the effectiveness of interventions, such views highlight a number of promising ways in which to develop and test future mental health promotion interventions. Currently, interventions evaluated by good quality research do not always target what young people themselves see as the main barriers to their mental health and do not always build on what they see as the main facilitators. A major discrepancy in this respect is the finding that, whilst young people see material and physical resources as having a major influence on their mental health, there are few evaluated interventions (soundly evaluated or otherwise) which have targeted such structural factors.

A third major finding is that there is currently little research to guide mental health promotion for socially excluded groups. This is a significant research gap since current health policy in the UK has a clear commitment to tackling the wider determinants of health and inequalities in health.

Whilst the evidence base is limited, and mainly based on the findings of research carried out in the USA, together with the findings of the views of young people in the UK, a number of recommendations for policy and practice and the future development of mental health promotion can be made.

9.1 Recommendations for mental health promotion policy and practice

This set of recommendations is based on the review's findings about interventions which well-designed outcome evaluations have demonstrated to have positive, harmful or no effects. They also highlight interventions for which there is evidence of ineffectiveness. For full details on the findings used to generate these recommendations see chapter 5.

- The current evidence on whether, overall, interventions to promote young people's mental health or prevent their mental illness for young people are effective is conflicting. Of the good quality systematic reviews assessed, three came to generally positive conclusions, whilst four reached mainly negative conclusions. The methodologically sound outcome evaluations, which looked specifically at self-esteem, depression, and the prevention of self-harm and suicide, tended to be effective only for outcomes such as knowledge and awareness, rather than symptoms of depression or measures of self-esteem, and effects were short lived. **Future efforts should carefully consider which interventions to implement or whether to intervene at all.**
- Interventions to promote self-esteem are more likely to be effective if self-esteem is the main focus, rather than just one component of a broader mental health initiative. One systematic review judged to be of good quality found evidence to support the above despite an overall finding that interventions to promote self-esteem (amongst other outcomes), implemented in mainly school settings with a variety of providers, have been limited in their effectiveness. **If the aim of future programmes is to promote self-esteem, interventions need to focus on this rather than a range of mental health issues.**
- There is currently insufficient evidence to recommend school-based suicide prevention. Two systematic reviews judged to be of good quality found the strength of evidence to be weak. Whilst some evaluations of interventions of this type have shown increases in knowledge, other studies have found this type of intervention to be harmful. One further well-designed trial not included in these two reviews found no effect of an intervention presenting information on suicide (e.g. warning signs, where to go for help, coping with stress and depression) on knowledge, stress and anxiety. **It may be more appropriate to frame interventions in terms of helping young people cope with stress and anxiety rather than explicitly on avoiding suicide.**
- Knowledge-based sessions of a short duration delivered in school have not been demonstrated to be effective for preventing depression. One well-designed outcome evaluation found no effect of such an intervention on depressive symptoms, knowledge, attitudes or intentions. This is supported by the findings of one systematic review which found that interventions using skill development or behavioural techniques (e.g. modelling, role-playing, feedback and reinforcement) were more effective than non-behavioural techniques. Combinations of approaches are likely to be more effective. Their impact might be strengthened by locating within multi-component interventions which complement, for example, classroom-based activities with changes to school ethos and functioning, as well as involving parents, youth groups, health services, and other agencies. **Future efforts to prevent mental illness or promote mental health should not rely on the presentation of information alone but should include skill development components using behavioural techniques, and should be reinforced by support at different levels (e.g. classroom, school, home, community, society).**

- Young people do not relate to medically or professionally defined concepts such as 'mental illness', 'depression' or 'positive mental health' and they associate negative meanings with the term 'mental health'. Most of the interventions in this review, however, used these concepts in their intervention materials. Young people do identify and are concerned with what could be considered to be 'determinants' of mental health such as stress and feelings of powerlessness. This may be one reason for explaining why well-designed outcome evaluations did not find interventions to be effective. ***Future interventions need to make sure that their content and presentation is relevant to the context of young people's everyday lives.***

9.2 Recommendations for the future development of mental health promotion

This set of recommendations is based on interventions included in this review which look 'promising' but need to be developed and evaluated further, and gaps in interventions which have been evaluated. 'Promising' interventions have been identified from those which match young people's views about the main barriers to, and facilitators of, their mental health, and gaps have been identified from mismatches between interventions and young people's views. These all clearly highlight *the need for researchers and practitioners to work in partnership*. For full details of the findings on which these recommendations are based, see chapters 6 and 7, and for a discussion about how they might best be evaluated see chapter 8.

- ***Young people's views should be the starting point of any future developments of mental health promotion.*** The barriers to their mental health revealed four main themes: school; material and physical circumstances; relationships and self.
- ***Interventions which aim to reduce school workload or help young people cope with their school work need to be tested further.*** Young people described the need to achieve in school, examinations and homework as important school related barriers to their mental health. These factors have not been addressed directly by any of the outcome evaluations found to be of high quality in the in-depth review reported here or in the high quality systematic reviews. A good starting point will be the 12 potentially sound evaluations of interventions focused on stress and anxiety which were identified in the mapping and quality screening part of the review. Whilst helping young people to manage stress might go some way to addressing this barrier it is also important to tackle the root cause of the problem - for instance, the fact that the level of work is, for some young people, overwhelming. Evaluation of the effects on outcomes such as anxiety and stress, as well as educational attainment of initiatives to reduce workload would be one way forward. The goal would be to minimise pressure on young people without compromising curriculum requirements.
- ***Interventions which aim to improve social relations between teachers and young people need to be improved.*** Teachers' behaviour towards, and interactions with, young people were identified

by young people as impacting negatively on their mental health. One high quality systematic review found that interventions which aim to modify psychosocial aspects of the classroom (including promoting supportive relationships between students and teachers) had a limited effectiveness.

- ***The effectiveness of teachers as intervention providers and schools as intervention settings needs to be compared to the effectiveness of other providers and other settings.*** Young people identified few school-related facilitators of their mental health and relations with teachers tended to be described in negative terms. However, most well-designed evaluations have been school-based and teachers have been the main intervention providers.
- ***Interventions which aim to modify structural aspects of the school need to be developed and evaluated.*** Young people identified aspects of the school environment (e.g. 'monotony' of school) and structure (e.g. teachers not communicating with each other) as barriers to their mental health in their own right or as factors which made coping with school workload more difficult. Interventions which aim to modify school structures have been evaluated and found to be moderately effective in one high quality systematic review, but these have so far only been implemented in the context of easing transitions between primary and secondary education.
- ***Interventions which aim to tackle the material and physical circumstances of young people's lives need to be developed and evaluated.*** Lack of money; employment opportunities; racism and other discrimination; feelings of powerlessness; and lack of leisure opportunities were all identified as important barriers to young people's mental health. However, there were no well-designed outcome evaluations included in our in-depth review which addressed these barriers.
- ***Interventions which foster supportive relationships within families are promising but need to be evaluated further.*** One well-designed outcome evaluation tested an intervention which taught family members to build self-esteem in themselves and others. Although reviewers judged this to be unclear in its effects, young people identified family conflict and parents not understanding/listening as barriers, and family love, support and affection to be important facilitators. One systematic review found that interventions aiming to help young people with parental divorce and those which trained parents in child development were of limited effectiveness. ***This suggests that it is important to include both young people and their parents in the development and planning of future interventions.***
- ***The feasibility of developing interventions which foster supportive relationships and facilitate the exchange of advice between friends and wider peer groups needs to be explored.*** Young people frequently identified friends as a source of barriers to, and facilitators of, their mental health. However, only interventions which focus on the individual have so far been tested in high quality evaluations included in

our in-depth review. One systematic review included two outcome evaluations which found interventions to improve young people's social skills to be effective for increasing peer acceptance. Other relevant intervention strategies need to be explored and tested.

- ***In line with the above, interventions which use 'peer counselling' need to be more rigorously evaluated and interventions to train adults in supportive communication and listening skills need to be developed and evaluated.*** 'Peer counselling' may be able to build on the coping strategy of relying on friends but at the moment it is not clear to what extent this type of intervention has been rigorously evaluated. Young people also describe adults as people they would like to talk to about more unfamiliar or serious problems, but do not feel confident in adults to listen to them in an appropriate manner. ***This fits in with young people's own recommendation that more resources should be put into services such as ChildLine.***
- ***Interventions which aim to reduce depression or promote self-esteem through training in the use of pleasant activities challenging self-defeating thoughts need to be developed and evaluated further.*** Two well-designed outcome evaluations tested these interventions but reviewers judged them to be unclear in their effects on depressive symptoms and only effective for self-esteem related knowledge. However, these interventions built on facilitators of mental health that closely matched young people's own views on what makes them feel better or good about themselves.
- ***Interventions which build on other coping strategies identified by young people need to be developed and evaluated.*** Some young people especially older young men did not consider talking to be a viable option. Alternative coping strategies highlighted the importance of physical activity, creative activities and expressing emotions through, for example, music and aggression.

9.3 Recommendations for involving young people in the development of mental health promotion

- ***Young people should always be consulted on matters concerning the promotion of their mental health.*** This is not only an ethical imperative but it is crucial in the development of potentially effective and acceptable interventions. Currently, from the information provided about the majority of evaluated interventions, young people have not been consulted either in intervention development or in the evaluation of intervention processes.
- ***Young people should be involved as equal stakeholders in future agenda-setting for mental health promotion.*** Young people have valuable knowledge about what's good and bad for their mental health and they want relevant, correct information and advice delivered to them in an appropriate manner by people they consider suitable.

- **Researchers need to engage young people in the task of eliciting their views.** We found that studies often gave little attention to exploring questions of why or how identified factors acted as barriers or need to be facilitators. Methods needs to be used which enable young people to express themselves easily, following lines of questioning and terms relevant to the context of their everyday lives.
- **Researchers need explicitly to ask young people what they think could or should be done to promote their mental health.** We found that studies often tried to infer this indirectly from what young people said in response to other questions about their mental health.
- **This review is a resource to help practitioners plan and develop interventions in line with young people's views.** We have systematically searched for, extracted data from, quality assessed and synthesised the results of a number of studies which elicit young people's views. In this sense the review is a 'meta' assessment of needs which constitutes a resource for future research and policy development.
- In view of the current UK policy focus on tackling the material and structural factors impacting on health, and the fact that the studies reviewed in this report generally did not address such issues, **future research should adopt a stronger focus on the mental health needs of young people who are socially excluded, and should identify to promote the mental health of this group.**

9.4 Recommendations for future systematic reviews and evaluation of mental health promotion

- **Future systematic reviews on mental health promotion should not attempt to cover all aspects of mental health.** Mental health, like physical health, is a broad area and efforts to cover this breadth may result in an unsatisfactory review product.
- **Promising specific topic areas for future systematic reviews include violence, bullying, concerns about physical appearance and weight, coping with stress and anxiety, social support, and provision of opportunities to participate in physical and creative activities.** Young people identified these as key areas of concern but we did not search systematically or review in-depth research on these topics!
- **Systematic reviews should to provide as much detail as possible on the primary studies included. To facilitate this, reviewers should used a standardised data extraction framework and should store the data they extract from each study in such a way that it is available for future review updates.** Including systematic reviews and outcome evaluations within a systematic review can be problematic in that more detail can often be extracted from outcome evaluations than from the systematic reviews which vary in the level of detail they provide on the studies they include.

- ***Outcome evaluations should always attempt to conduct integral process evaluations.*** Only 20% of the outcome evaluations included in our mapping and quality assessment exercise did this.
- ***Outcome evaluations should, where possible, use the design of a randomised control trial in order to maximise the chances of producing reliable results.*** Use of this method to evaluate 'structural' or 'community-level' interventions should not be rejected prematurely.
- ***Key aspects of the methodology and results of outcome evaluations need to be reported in a detailed and consistent manner to promote confidence in their rigour.*** Outcome evaluations do not consistently report pre-test and post-test data for all participants as recruited into the study; establish the equivalence of intervention and control groups; or report the impact of the intervention for all outcomes targeted. These key aspects need to be reported as a minimum benchmark of quality. Where publication word limits will allow, further information should be provided on the aims of the study; on the method of randomisation where used; on numbers of participants assigned to intervention and control groups; on intervention and evaluation characteristics; and on attrition rates.

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APPENDIX A: Search Strategies

Separate search strategies were developed for each of the five commercially available databases and the specialised registers used to identify studies. For Medline, EMBASE, PsycLIT and ERIC, terms in upper-case are from each database's controlled vocabulary system (thesaurus) and terms in lower-case are free-text terms. Unless specified, access to the commercially available electronic databases was through the SPIRS operating system.

MEDLINE

The search strategy for Medline was implemented from January 1995 to September 1999. For the search strategy used to search for mental health studies prior to 1995 see the section 'BiblioMap' below.

Free-text terms for mental health, mental illness or mediators

#01 (mental health or self esteem or self concept or coping or well being or social support or empower* or mental disorder* or mental illness or anxiety or suicide or depression or self harm or eating disorders or anorexia or bulimia) in TI

Free-text terms for health promotion and for determinants of mental health or mental illness

#02 (prevent or reduc* or promot* or increas* intervention* or program* or curriculum* or educat* or project* or campaign* or impact or risk factor* or vulnerability or resilien* or protect* near3 factor* or factors associated or correlates or predict* or determin*) in TI

Terms for young people

- #03 young people in ti
- #04 young people in ab
- #05 young adult* in ti
- #06 young adult* in ab
- #07 YOUTH in DE
- #08 JUVENILE* in DE
- #09 teenager* in ti
- #10 teenager* in ab
- #11 adolescent* in ti
- #12 adolescent* in ab
- #13 ADOLESCENT* in DE
- #14 school student* in ti
- #15 school student* in ab
- #16 dropout* in ti
- #17 DROPOUT* in DE
- #18 pupil* in ti
- #19 pupil* in ab
- #20 #03 or #04 or #05 or #06 or #07 or #08 or #09 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19
- #21 #01 and #02 and #20

Controlled terms for mental health, mental illness or mediators of mental health or illness

- #22 MENTAL-HEALTH /all subheadings
- #23 ADAPTATION, PSYCHOLOGICAL /all subheadings
- #24 SELF-CONCEPT /all subheadings
- #25 HAPPINESS /all subheadings
- #26 BOREDOM /all subheadings
- #27 ANXIETY /all subheadings
- #28 ANGER /all subheadings
- #29 FRUSTRATION /all subheadings
- #30 GRIEF /all subheadings
- #31 BEREAVEMENT /all subheadings
- #32 EMOTIONS /all subheadings
- #33 IDENTITY-CRISIS /all subheadings
- #34 SOCIAL-ALIENATION /all subheadings
- #35 SOCIAL-SUPPORT /all subheadings
- #36 SOCIAL-ISOLATION /all subheadings
- #37 MENTAL-HEALTH SERVICES /all subheadings
- #38 COMMUNITY-MENTAL-HEALTH-SERVICES /all subheadings
- #39 MENTAL-DISORDERS / ethnology, epidemiology, nursing, prevention-and-control, psychology
- #40 exp EATING-DISORDERS / ethnology, epidemiology, nursing, prevention-and-control, psychology
- #41 DEPRESSIVE-DISORDERS / ethnology, epidemiology, nursing, prevention-and-control, psychology
- #42 AFFECTIVE-SYMPTOMS /all subheadings
- #43 DEPRESSION /all subheadings
- #44 SELF-INJURIOUS-BEHAVIOUR /all subheadings
- #45 STRESS, PSYCHOLOGICAL /all subheadings
- #46 SUICIDE /all subheadings
- #47 SUICIDE, ATTEMPTED /all subheadings
- #48 #22 or #23 or #24 or #25 or #26 or #27 or #28 or #29 or #30 or #31 or #32 or #33 or #34 or #35 or #36 or #37 or #38 or #39 or #40 or #41 or #42 or #43 or #44 or #45 or #46 or #47

Controlled terms for health promotion and for determinants of mental health or mental illness

- #49 RISK /all subheadings
- #50 RISK-FACTORS /all subheadings
- #51 CULTURE /all subheadings
- #52 exp LIFESTYLE /all subheadings
- #53 RISK-TAKING /all subheadings
- #54 KNOWLEDGE,-ATTITUDES,-PRACTICE /all subheadings
- #55 ADOLESCENT-BEHAVIOUR /all subheadings
- #56 ADOLESCENT-PSYCHOLOGY /all subheadings
- #57 CROSS-CULTURAL-COMPARISON /all subheadings
- #58 COMPARATIVE-STUDY /all subheadings
- #59 exp SOCIOECONOMIC-FACTORS /all subheadings
- #60 RACE-RELATIONS /all subheadings
- #61 CULTURAL-DEPRIVATION /all subheadings
- #62 URBAN-POPULATION /all subheadings

- #63 STUDENT-DROPOUTS /all subheadings
- #64 JUVENILE- DELINQUENCY /all subheadings
- #65 HOMELESS-YOUTH /all subheadings
- #66 ADOLESCENT-MOTHERS /all subheadings
- #67 ADOLESCENT-FATHERS /all subheadings
- #68 HEALTH-PROMOTION /all subheadings
- #69 HEALTH-EDUCATION /all subheadings
- #70 PRIMARY-PREVENTION /all subheadings
- #71 BEHAVIOUR-MODIFICATION /all subheadings
- #72 BEHAVIOUR-THERAPY /all subheadings
- #73 COGNITIVE-THERAPY /all subheadings
- #74 PROGRAM-EVALUATION /all subheadings
- #75 INTERVENTION-STUDIES /all subheadings
- #76 OUTCOME- ASSESSMENT-HEALTH-CARE /all subheadings
- #77 #49 or #50 or #51 or #52 or #53 or #54 or #55 or #56 or #57 or #58 or #59 or #60 or #61 or #62 or #63 or #64 or #65 or #66 or #67 or #68 or #69 or #70 or #71 or #72 or #73 or #74 or #75 or #76
- #78 #48 and #77 and #20

Final result

- #79 #21 OR #78

EMBASE

The search strategy for Embase was implemented from January 1995 to September 1999. For the search strategy used to search for mental health studies on Embase prior to 1995 see the section 'BiblioMap' below.

Free-text terms for mental health, mental illness or mediators of mental health or illness

- #01 (mental health or self esteem or self concept or coping or well being or social support or empower* or mental disorder* or mental illness or anxiety or suicide or depression or self harm or eating disorders or anorexia or bulimia) in TI

Free-text terms for health promotion and for determinants of mental health or mental illness

- #02 (prevent* or reduc* or promot* or increas* intervention* or program* or curriculum* or educat* or project* or campaign* or impact or risk factor* or vulnerability or resilien* or protect* near3 factor* or factors associated or correlates or predict* or determin*) in TI

Terms for young people

- #03 young people in ti
- #04 young people in ab
- #05 young adult* in ti
- #06 young adult* in ab
- #07 youth in ti
- #08 youth in ab

- #09 juvenile* in ti
- #10 juvenile* in ab
- #11 teenager* in ti
- #12 teenager* in ab
- #13 adolescent* in ti
- #14 adolescent* in ab
- #15 school student* in ti
- #16 school student* in ab
- #17 dropout* in ti
- #18 dropout* in ab
- #19 pupil* in ti
- #20 pupil* in ab
- #21 #03 or #04 or #05 or #06 or #07 or #08 or #09 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 or #20
- #22 explode ADOLESCENT / all subheadings
- #23 ADULT / all subheadings
- #24 #22 not #23
- #25 #21 or #23
- #26 #01 and #02 and #25

Controlled terms for mental health, mental illness or mediators of mental health or illness

- #27 explode MENTAL-HEALTH / all subheadings
- #28 SELF-CONCEPT / all subheadings
- #29 SELF-ESTEEM / all subheadings
- #30 IDENTITY / all subheadings
- #31 COPING-BEHAVIOR / all subheadings
- #32 explode EMOTION / all subheadings
- #33 explode STRESS / all subheadings
- #34 SOCIAL-SUPPORT / all subheadings
- #35 explode EMOTIONAL-DEPRIVATION / all subheadings
- #36 SOCIAL-ADAPTATION / all subheadings
- #37 MENTAL-DISEASE / epidemiology, prevention, without-subheadings
- #38 DEPRESSION / without-subheadings, epidemiology, prevention
- #39 FEEDING-DISORDER / without-subheadings, epidemiology, prevention
- #40 ANOREXIA / without-subheadings, epidemiology, prevention
- #41 APPETITE-DISORDER / without-subheadings, epidemiology, prevention
- #42 BULIMIA / without-subheadings, epidemiology, prevention
- #43 EATING-DISORDER / without-subheadings, epidemiology, prevention
- #44 BINGE-EATING-DISORDER / without-subheadings, epidemiology, prevention
- #45 AFFECTIVE-NEUROSIS / without-subheadings, epidemiology, prevention
- #46 explode SUICIDAL-BEHAVIOR / all subheadings
- #47 DISTRESS-SYNDROME / without-subheadings, epidemiology, prevention
- #48 BEHAVIOR-DISORDER / without-subheadings, epidemiology, prevention
- #49 explode PSYCHOSOCIAL-DISORDER / without-subheadings, epidemiology, prevention
- #50 #27 or #28 or #29 or #30 or #31 or #32 or #33 or #34 or #35 or #36 or #37 or #38 or #39 or #40 or #41 or #42 or #43 or #44 or #45 or #46 or #47 or #48 or #49

Controlled terms for health promotion and for determinants of mental health or mental illness

- #51 HEALTH-EDUCATION / all subheadings
- #52 HEALTH-PROMOTION / all subheadings
- #53 EDUCATION / all subheadings
- #54 EDUCATION-PROGRAM / all subheadings
- #55 HEALTH-PROGRAM / all subheadings
- #56 BEHAVIOR-THERAPY / all subheadings
- #57 BEHAVIOR-MODIFICATION / all subheadings
- #58 EVALUATION-AND-FOLLOW-UP / all subheadings
- #59 EVALUATION / all subheadings
- #60 PREVENTIVE-MEDICINE / all subheadings
- #61 LIFESTYLE-AND-RELATED-PHENOMENA / all subheadings
- #62 LIFESTYLE / all subheadings
- #63 LIFE-EVENT / all subheadings
- #64 RISK / all subheadings
- #65 RISK-ASSESSMENT / all subheadings
- #66 RISK-FACTOR / all subheadings
- #67 HIGH-RISK-POPULATION / all subheadings
- #68 PREVENTION / all subheadings
- #69 PREVENTION-AND-CONTROL / all subheadings
- #70 PRIMARY-PREVENTION / all subheadings
- #71 CURRICULUM / all subheadings
- #72 COGNITIVE-THERAPY / all subheadings
- #73 explode ETHNIC-or-RACIAL-ASPECTS / all subheadings
- #74 PROTECTION / all subheadings
- #75 UNEMPLOYMENT / all subheadings
- #76 SOCIAL-PROBLEM / all subheadings
- #77 CULTURAL-DEPRIVATION / all subheadings
- #78 HOMELESSNESS / all subheadings
- #79 CULTURAL-ANTHROPOLOGY / all subheadings
- #80 PSYCHOLOGICAL-ASPECT / all subheadings
- #81 SOCIAL-ASPECT / all subheadings
- #82 SOCIAL-PSYCHOLOGY / all subheadings
- #83 ECONOMIC-ASPECT / all subheadings
- #84 SOCIAL-CLASS / all subheadings
- #85 DISABILITY / all subheadings
- #86 LEARNING-DISORDER / all subheadings
- #87 URBAN-POPULATION / all subheadings
- #88 URBAN-RURAL-DIFFERENCE / all subheadings
- #89 HUMAN-RELATION / all subheadings
- #90 FAMILY-LIFE / all subheadings
- #91 CONFLICT / all subheadings
- #92 #51 or #52 or #53 or #54 or #55 or #56 or #57 or #58 or #59 or #60 or #61 or #62 or #63 or #64 or #65 or #66 or #67 or #68 or #69 or #70 or #71 or #72 or #73 or #74 or #75 or #76 or #77 or #78 or #79 or #80 or #81 or #82 or #83 or #84 or #85 or #86 or #87 or #88 or #89 or #90 or #91
- #93 #50 and #92 and #25

Final result

- #94 #26 or #93

PsycLIT

(1970 - September 1999)

Free-text terms for mental health, mental illness or mediators of mental health or illness

#01 (mental health or self esteem or self concept or coping or well being or social support or empower* or mental disorder* or mental illness or anxiety or suicide or depression or self harm or eating disorders or anorexia or bulimia) in TI

Free-text terms for health promotion and for determinants of mental health or mental illness

#02 (prevent* or reduc* or promot* or increas* intervention* or program* or curriculum* or educat* or project* or campaign* or impact or risk factor* or vulnerability or resilien* or protect* near3 factor* or factors associated or correlates or predict* or determin*) in TI

Terms for young people

#03 young people in ti
#04 young people in ab
#05 young adult* in ti
#06 young adult* in ab
#07 youth in ti
#08 youth in ab
#09 YOUTH in DE
#10 juvenile* in ti
#11 juvenile* in ab
#12 JUVENILE* in DE
#13 teenager* in ti
#14 teenager* in ab
#15 adolescent* in ti
#16 adolescent* in ab
#17 ADOLESCENT* in DE
#18 school student* in ti
#19 school student* in ab
#20 SCHOOL* in DE
#21 dropout* in ti
#22 dropout* in ab
#23 DROPOUT* in DE
#24 pupil* in ti
#25 pupil* in ab
#26 PUPIL* in DE
#27 #03 or #04 or #05 or #06 or #07 or #08 or #09 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23 or #24 or #25 or #26
#28 #01 and #02 and #27

Closely matched controlled terms for mental health promotion

#29 PRIMARY-MENTAL-HEALTH-PREVENTION in DE

- #30 SUICIDE-PREVENTION in DE
- #31 STRESS-MANAGEMENT in DE
- #32 ANXIETY-MANAGEMENT in DE
- #33 #29 or #30 or #31 or #32

Controlled terms for mental health, mental illness or mediators of mental health or illness

- #34 MENTAL-HEALTH in DE
- #35 COMMUNITY-MENTAL-HEALTH in DE)
- #36 WELL-BEING in DE
- #37 explode EMOTIONAL-ADJUSTMENT in DE
- #38 HARDINESS- in DE
- #39 COPING-BEHAVIOR in DE
- #40 EMOTIONAL-STABILITY in DE
- #41 PSYCHOLOGICAL-ENDURANCE in DE
- #42 PSYCHOLOGICAL-STRESS in DE
- #43 SOCIAL-ADJUSTMENT in DE
- #44 explode MENTAL-HEALTH-PROGRAMS in DE
- #45 EMOTIONS- in DE
- #46 ALIENATION- in DE
- #47 ANXIETY- in DE
- #48 BOREDOM- in DE
- #49 DEPRESSION-EMOTION in DE
- #50 DISTRESS- in DE
- #51 EMOTIONAL-TRAUMA in DE
- #52 GRIEF- in DE
- #53 HAPPINESS- in DE
- #54 LONELINESS- in DE
- #55 SADNESS- in DE
- #56 MORALE- in DE
- #57 SELF-ESTEEM in DE
- #58 SELF-CONCEPT in DE
- #59 SELF-CONFIDENCE in DE
- #60 SELF-PERCEPTION in DE
- #61 EMPOWERMENT- in DE
- #62 SELF-DETERMINATION in DE
- #63 SELF-ACTUALIZATION in DE
- #64 INTERNAL-EXTERNAL-LOCUS-OF-CONTROL in DE
- #65 SOCIAL-SUPPORT-NETWORKS in DE
- #66 SUPPORT-GROUPS in DE
- #67 MENTAL-DISORDERS in DE
- #68 EATING-DISORDERS in DE
- #69 ANOREXIA-NERVOSA in DE
- #70 BULIMIA- in DE
- #71 SUICIDE- in DE
- #72 SELF-DESTRUCTIVE-BEHAVIOR in DE
- #73 ATTEMPTED-SUICIDE in DE
- #74 SUICIDAL-IDEATION in DE
- #75 MAJOR-DEPRESSION in DE
- #76 #34 or #35 or #36 or #37 or #38 or #39 or #40 or #41 or #42 or #43 or #44 or #45 or #46 or #47 or #48 or #49 or #50 or #51 or #52 or #53 or #54 or #55 or #56 or #57 or #58 or #59 or #60 or #61 or #62 or #63 or

#64 or #65 or #66 or #67 or #68 or #69 or #70 or #71 or #72 or #73 or #74 or #75

Controlled terms for health promotion and for determinants of mental health or mental illness

#77 ETHNIC-IDENTITY in DE
#78 SOCIOCULTURAL-FACTORS in DE
#79 SOCIAL-IDENTITY in DE
#80 GENDER-IDENTITY in DE
#81 HEALTH-EDUCATION in DE
#82 HEALTH-PROMOTION in DE
#83 LIFESTYLE-CHANGES in DE
#84 PREVENTION- in DE
#85 PREVENTIVE-MEDICINE in DE
#86 PSYCHOEDUCATION- in DE
#87 EDUCATIONAL-THERAPY in DE
#88 RISK-MANAGEMENT in DE
#89 RISK-TAKING in DE
#90 BEHAVIOR-MODIFICATION in DE
#91 BEHAVIOR-THERAPY in DE
#92 BEHAVIOR-CHANGE in DE
#93 COGNITIVE-THERAPY in DE
#94 PROGRAM-EVALUATION in DE
#95 EDUCATIONAL-PROGRAM-EVALUATION in DE
#96 MENTAL-HEALTH-PROGRAM-EVALUATION in DE
#97 RISK-PERCEPTION in DE
#98 explode LIFESTYLE in DE
#99 SUSCEPTIBILITY-DISORDERS in DE
#100 PREDISPOSITION- in DE
#101 AT-RISK-POPULATIONS in DE
#102 SOCIOCULTURAL-FACTORS in DE
#103 CROSS-CULTURAL-DIFFERENCES in DE
#104 CULTURAL-DEPRIVATION in DE
#105 ETHNOGRAPHY- in DE
#106 ETHNOLOGY- in DE
#107 PSYCHOSOCIAL-FACTORS in DE
#108 explode SOCIOECONOMIC-STATUS in DE
#141 DROPOUTS- in DE
#142 POTENTIAL-DROPOUTS in DE
#143 SCHOOL-DROPOUTS in DE
#144 LIFE-EXPERIENCES in DE
#145 SOCIAL-DEPRIVATION in DE
#146 DISADVANTAGED- in DE
#147 HOMELESS- in DE
#148 explode JUVENILE-DELINQUENTS in DE
#149 DISADVANTAGED- in DE
#150 POVERTY- in DE
#151 URBAN-ENVIRONMENTS in DE
#152 UNEMPLOYMENT- in DE
#153 RACIAL-AND-ETHNIC-DIFFERENCES in DE
#154 RACE-AND-ETHNIC-DISCRIMINATION in DE
#155 LEARNING-DISABILITIES in DE

- #156 DISABLED- in DE
- #157 #77 or #78 or #79 or #80 or #81 or #82 or #83 or #84 or #85 or #86 or #87 or #88 or #89 or #90 or #91 or #92 or #93 or #94 or #95 or #96 or #97 or #98 or #99 or #100 or #101 or #102 or #103 or #104 or #105 or #106 or #107 or #108 or #109 or #110 or #111 or #112 or #113 or #114 or #115 or #116 or #117 or #118 or #119 or #120 or #121 #122 or #123 or #124 or #125 or #126 or #127 or #128 or #129 or #130 or #131 or #132 or #133 or #134 or #135 or #136 or #137 or #138 or #139 or #140 or #141 or #142 or #143 or #144 or #145 or #146 or #147 or #148 or #149 or #150 or #151 or #152 or #153 or #154 or #155 or #156
- #158 #76 and #157
- #159 #158 or #33
- #160 #159 and #27

Final result

- #161 #28 or #160

ERIC

(1984 - September 1999 BIDS)

Terms for mental health, mental illness or mediators of mental health or illness

- #01 ADJUSTMENT-(TO-ENVIRONMENT) in DE
- #02 COPING in DE
- #03 LIFE-SATISFACTION in DE
- #04 MENTAL-DISORDERS in DE
- #05 MENTAL-HEALTH in DE
- #06 MENTAL-HEALTH-PROGRAMS in DE
- #07 SELF-ACTUALIZATION in DE
- #08 HAPINESS in DE
- #09 WELL-BEING in DE
- #10 EMOTIONAL-ADJUSTMENT in DE
- #11 SOCIAL-ADJUSTMENT in DE
- #12 SOCIAL-ISOLATION in DE
- #13 STRESS-MANAGEMENT in DE
- #14 STRESS-VARIABLES in DE
- #15 DAILY-LIVING-SKILLS in DE
- #16 BEREAVEMENT in DE
- #17 GRIEF in DE
- #18 SELF-ESTEEM in DE
- #19 ANXIETY in DE
- #20 "DEPRESSION-(PSYCHOLOGY)" in DE
- #21 EMOTIONAL-PROBLEMS in DE
- #22 LONELINESS in DE
- #23 MOODS in DE
- #24 SADNESS in DE
- #25 SELF-INJURIOUS-BEHAVIOR in DE
- #26 SUICIDE in DE
- #27 ANOREXIA-NERVOSA in DE
- #28 BULIMIA in DE
- #29 EATING-DISORDERS in DE

- #30 ALIENATION in DE
- #31 CULTURAL-ISOLATION in DE
- #32 STUDENT-ALIENATION in DE
- #33 BEHAVIOR-PROBLEMS in DE
- #34 ANTISOCIAL-BEHAVIOR in DE
- #35 SELF-DESTRUCTIVE-BEHAVIOR in DE
- #36 #01 or #02 or #03 or #04 or #05 or #06 or #07 or #08 or #09 or #10 or #11 or #12 or #13 or #14 or #15 or #16 or #17 or #18 or #19 or #20 or #21 or #22 or #23 or #24 or #25 or #26 or #27 or #28 or #29 or #30 or #31 or #32 or #33 or #34 or #35

Terms for health promotion and terms for determinants of mental health or mental illness

- #37 HEALTH-ACTIVITIES in DE
- #38 HEALTH-EDUCATION in DE
- #39 HEALTH-PROGRAMS in DE
- #40 HEALTH-PROMOTION in DE
- #41 HEALTH-MATERIALS in DE
- #42 BEHAVIOR-CHANGE in DE
- #43 BEHAVIOR-MODIFICATION in DE
- #44 INTERVENTION in DE
- #45 CRIME-PREVENTION in DE
- #46 DROPOUT-PREVENTION in DE
- #47 PREVENTION in DE
- #48 PREVENTIVE-MEDICINE in DE
- #49 RISK-MANAGEMENT in DE
- #50 EVALUATION in DE
- #51 FORMATIVE-EVALUATION in DE
- #52 NEEDS-ASSESSMENT in DE
- #53 SUMMATIVE-EVALUATION in DE
- #54 OUTCOME-BASED-EDUCATION in DE
- #55 OUTCOMES-OF-EDUCATION in DE
- #56 PROGRAM-EFFECTIVENESS in DE
- #57 DISADVANTAGED in DE
- #58 EDUCATIONALLY-DISADVANTAGED in DE
- #59 POVERTY in DE
- #60 UNEMPLOYMENT in DE
- #61 ECONOMICALLY-DISADVANTAGED in DE
- #62 HOMELESS-PEOPLE in DE
- #63 LOW-INCOME-GROUPS in DE
- #64 POVERTY-PROGRAMS in DE
- #65 DROPOUT-CHARACTERISTICS in DE
- #66 DROPOUT-PREVENTION in DE
- #67 DROPOUT-PROGRAMS in DE
- #68 OUT-OF-SCHOOL-YOUTH in DE
- #69 POTENTIAL-DROPOUTS in DE
- #70 TRUANCY in DE
- #71 ETHNIC-STEREOTYPES in DE
- #72 RACIAL-DISCRIMINATION in DE
- #73 CULTURAL-DIFFERENCES in DE
- #74 DISABILITY-DISCRIMINATION in DE
- #75 LEARNING-DISABILITIES in DE

- #76 URBAN-YOUTH in DE
- #77 RISK in DE
- #78 DELINQUENCY in DE
- #79 DELINQUENCY-PREVENTION in DE
- #80 DELINQUENCY-CAUSES in DE
- #81 RUNAWAYS in DE
- #82 YOUTH-PROBLEMS in DE
- #83 #37 or #38 or #39 or #40 or #41 or #42 or #43 or #44 or #45 or #46 or #47 or #48 or #49 or #50 or #51 or #52 or #53 or #54 or #55 or #56 or #57 or #58 or #59 or #60 or #61 or #62 or #63 or #64 or #65 or #66 or #67 or #68 or #69 or #70 or #71 or #72 or #73 or #74 or #75 or #76 or #77 or #78 or #79 or #80 or #81 or #82

Terms for young people

- #84 youth in TI or AB
- #85 teenagers in TI or AB
- #86 young people in TI or AB
- #87 young adults in TI or AB
- #88 adolescents in TI or AB
- #89 ADOLESCENTS in DE
- #90 #84 or #85 or #86 or #87 or #88 or #89

Final result

- #91 #36 and #83and #90

SOCIAL SCIENCE CITATION INDEX

(1981 - September 1999 BIDS)

Terms for positive mental health or mediators of positive mental health

- #01 (mental health or self esteem or self concept or coping or well being or social support or empower* or life skills) in TI

Terms for promotion of positive health

- #02 (promot* or increas* or prevent* or intervention* or program* or curriculum* or educat* or project* or campaign* or impact)

Terms for young people

- #03 youth in TI, AB or DE
- #04 teenagers in TI, AB or DE
- #05 young people in TI, AB or DE
- #06 young adults in TI, AB or DE
- #07 adolescen* in TI, AB or DE
- #08 #03 or #04 or #05 or #06 or #07 or #08

Terms for mental ill-health

#09 (mental disorder or mental illness or stress or anxiety or suicid* or depression or self harm or eating disorders or anorexia or bulimia) in TI

Terms for prevention of ill-health

#10 (prevent* or reduc* or intervention* or program* or curriculum* impact or educat* or project* or campaign*) in TI

Terms for determinants

#11 (risk factor* or vulnerability or resilien* or protective factor* or factor* which protect or resistance or factors associated or correlat* or relationship or predict* or determinant* or unemployment or disadvantag* or drop outs or inequalities or prejudice or social class or working class or high risk or depriv* or poverty or truan* or ethnic* or race or educational attainment or non attenders or socioeconomic or disab* or learning diffult* or gender or exclu*) in TI

Combining terms for positive mental health with those for promoting positive health and those for young people

#12 #01 and #02 and #08

Combining terms for mental ill-health with those for prevention of ill-health and those for young people

#13 #09 and #10 and #08

Combining terms for positive mental health and mental ill-health

#14 #01 or #09

Combining terms for mental health or ill-health with those for determinants and those for young people

#15 #14 and #11 and #08

Final result

#16 #12 or #13 or #15

BiblioMap

#01 MENTAL HEALTH
#02 EATING DISORDERS
#03 SUICIDE
#04 #01 or #02 or #03
#05 YOUNG PEOPLE

Final result

#06 #04 and #05

The following earlier searches of Medline and EMBASE were carried out in 1995 and results held on BiblioMap

Medline

- #01 ADAPTATION-PSYCHOLOGICAL in DE or ANOREXIA-NERVOSA in DE or BULIMIA in DE or DEPRESSION in DE or EATING-DISORDERS in DE or MENTAL-HEALTH in DE or SELF-INJURIOUS-BEHAVIOR in DE or STRESS in DE or STRESS-PSYCHOLOGICAL in DE or SUICIDE in DE or SUICIDE-ATTEMPTED in DE or UNEMPLOYMENT in DE
- #02 ATTITUDE-TO-HEALTH in DE or HEALTH-BEHAVIOR in DE or HEALTH-EDUCATION in DE or HEALTH-PROMOTION in DE or KNOWLEDGE-ATTITUDES-PRACTICE in DE or LIFE-STYLE in DE or PATIENT-EDUCATION in DE or PRIMARY-PREVENTION in DE or RISK-MANAGEMENT in DE or RISK-TAKING in DE
- #03 ADOLESCENCE in DE or ADOLESCENT-BEHAVIOR in DE or ADOLESCENT-HEALTH-SERVICES in DE or SCHOOLS in DE or SCHOOL-HEALTH-SERVICES in DE or STUDENTS in DE

Final result

- #04 #01 and #02 and #03

EMBASE

- #01 ANOREXIA NERVOSA in DE or BULIMIA in DE or COPING BEHAVIOR in DE or DEPRESSION in DE or EMOTIONAL STABILITY in DE or EMOTIONAL STRESS in DE or FEEDING DISORDER in DE or LIFE SATISFACTION in DE or MENTAL STRESS in DE or RELAXATION TIME in DE or RELAXATION TRAINING in DE or SELF ESTEEM in DE or SELF INJURIOUS BEHAVIOR in DE or SUICIDE in DE
- #02 BEHAVIOR MODIFICATION in DE or HEALTH BEHAVIOR (EXPL) in DE or HEALTH EDUCATION (EXPL) in DE or HEALTH PROMOTION in DE or HEART INFARCTION PREVENTION in DE or INFECTION PREVENTION in DE or PRIMARY PREVENTION in DE or RISK MANAGEMENT in DE
- #03 ADOLESCENCE (EXPL) in DE or ADOLESCENT (EXPL) in DE or CHILD BEHAVIOR (EXPL) in DE or COLLEGE in DE or COLLEGE STUDENT in DE or HIGH SCHOOL in DE or SCHOOL (EXPL) in DE or SCHOOL HEALTH SERVICE in DE or STUDENT in DE or UNIVERSITY in DE

Final result

- #04 #01 and #02 and #03]

HealthPromis

- #01 MENTAL-HEALTH

#02 SELF-ESTEEM
#03 COPING
#04 SELF-CONCEPT
#05 STRESS
#06 SUICIDE
#07 #01 or #02 or #03 or #04 OR #05 OR #06
#08 ADOLESCENT*
#09 CHILDREN
#10 YOUNG ADULTS
#11 #08 OR #09 OR #10

Final result

#12 #07 AND #11

HEBS

#01 MENTAL HEALTH
#02 STRESS
#03 SELF-CONCEPT
#04 SUICIDE
#05 SELF-HARM
#06 COPING
#07 #01 or #02 or #03 or #04 OR #05 OR #06
#08 ADOLESCENT*
#09 CHILDREN
#10 YOUNG ADULTS
#11 #08 OR #09 OR #10

Final result

#12 #07 AND #11

APPENDIX B: Data extraction for the systematic reviews (N= 7)

Data Extraction: Tilford *et al.* (1997)

Authors	Intervention/trial details	Participants	Outcome measures
Tilford <i>et al.</i> (1997)	<p><i>Intervention</i> Mental health promotion interventions</p> <p><i>Number of studies</i> 72 (10 studies are cited as being relevant to young people, two of which focused specifically on self-esteem and self-concept)</p>	<p><i>Group</i> General population (sections on childhood, young people, adults and elderly)</p> <p><i>Number</i> Not stated</p> <p><i>Class</i> Not stated</p> <p><i>Age</i> Not stated</p>	Not stated

Main results

Authors' conclusion:

Self-concept and self-esteem needs of young people should be met through the whole curriculum as well as through specialist activities in personal, social and health education.

Individual studies:

- *'Evaluation of mental health illness awareness week in public schools'* (CCT): effective for increasing intentions to seek help.
- *'School health education for substance abuse, self-esteem and adolescent stress'* (one group before and after study): no influence on health behaviours, esteem and stress. Reason for ineffectiveness may be due to poor implementation (under-funding of projects)
- *'Family Development Project - among disadvantaged black adolescents in US'* (RCT): increase in self-concept, although not significantly different between groups. There were significant changes in perception of social support.
- *'Personal empowerment programme'* (RCT): no significant differences between groups in self-esteem and locus of control. Small sample, limited detail of intervention provided.
- *'Cognitive stress reduction programme'* (RCT): effective for decreasing anxiety, anger and improving self-esteem. Intervention based on theory, but limited by small sample size.
- *'Coping with distress and self-harm: school based primary prevention programme'* (before and after study with randomisation of groups): effective for suicide potential (especially amongst young men) and increases in knowledge of suicide and relevant resources. Longer-term follow-up is required.

APPENDIX B: Data extraction for the systematic reviews (cont'd)

- *'Aerobic exercise during pregnancy: effects on self-esteem'* (before and after study with non-randomised concurrent controls): effective for reducing depression scores, and increasing self-esteem.
- *'Hero/Heroine modelling for Puerto Rican adolescents to enhance ethnic identity, self-concept and reduce stress'* (RCT): self-concept effective for boys and girls in father-absent families.
- *'Effects of Outward Bound training on self-concept'* (multiple interrupted time series): effective for self-concept and shift towards more 'internal' locus of control responses.
- *'Teen parent programme to increase parents self-esteem and parenting skills'* (before and after study with non-randomised concurrent controls): modest increases in self-esteem amongst intervention group, insufficient basis to recommend programme at this stage.

Methodological attributes

1. What sources were searched to identify primary studies?

Electronic searching (Medline, PsycLit, Cinahl, Assia, ERIC, CAREDATA; hand-searching of a range of relevant journals; and unpublished sources (personal contact, theses). Dates of searching: 1980-95 (1982-1994 for studies targeted at young people).

2. Criteria on which the validity (or quality) of studies was assessed

Not stated.

3. What were the inclusion criteria?

Inclusions: RCTs, quasi-experimental designs, non-controlled studies (provided the use of the design was justified).

Exclusions: psychiatric inpatients, patients in secondary treatment setting or major psychiatric disorders, mental health related to alcohol use, drug treatments, interventions in workplace settings, interventions provided by clinical or educational psychologists, older people living in mental health institutions, educational interventions associated with hospitalisation, interventions targeted at the mental health sequelae of chronic/serious illness, post-referral to specialist psychologist and psychiatric services, interventions where mental health outcome is a subsidiary to a non relevant outcome (e.g. compliance).

4. How were the inclusion criteria applied?

Abstracts were read by two of the reviewers. Where there was doubt about appropriateness of a study the full paper was obtained and judgement made after discussion by several reviewers. The inclusion criteria were continually checked and tested.

5. How were the studies combined/analysed?

Studies were categorised according to client group and intervention goals with outcomes synthesized qualitatively. Data pertaining to individual studies were presented in tabular form.

APPENDIX B: Data extraction for the systematic reviews (cont'd)

6. How were judgements of validity (or quality) made?

See question 7

7. How were the data extracted from primary studies?

Each study was reviewed independently by two reviewers using a standardized data extraction form (intervention, target group, goals, methods, duration, agent, study design, results). Results were compared and disagreements resolved with a third reviewer if necessary.

Reviewer's comments

The review took steps to be as relevant to practice and policy as possible. A survey was conducted prior to the review to identify priority issues (involving health promotion units, mental health agencies, charities, and health promotion purchasers).

A thoughtful account is presented of the process of conducting the review. A large number of references were obtained from literature searching and the methods used to make the literature more manageable (e.g., refining the inclusion criteria) were justified and documented.

Young people's self-esteem may be effectively promoted in school-based interventions that are not specifically focused on promoting self-esteem.

APPENDIX B: Data extraction for the systematic reviews (cont'd)

Data Extraction: Haney and Durlak (1998)

Authors	Intervention/trial details	Participants	Outcome measures
Haney and Durlak (1998)	<p><i>Intervention</i></p> <p>(i) Studies with main focus of promoting self-esteem/self-concept [SE/SC interventions] (n= 49)</p> <p>(ii) Studies with another major focus (but with a SE/SC component) [non SE/SC interventions] (n=71)</p> <ul style="list-style-type: none"> • average length 20.43 weeks • average number of sessions 16.33 • 56% school based • 85% delivered to groups (rather than individuals) • 27 used 'pre-packaged' curricula • variety of media (role playing, affective education, parent training, behavioural modification, social skills training, cognitive behavioural therapy etc) <p><i>Number of studies</i> n=102 (120 interventions)</p> <p>52% were 'prevention' studies</p> <p>48% were 'treatment' studies</p>	<p><i>Group</i> Children or young people with mean age of 18 years or under</p> <p><i>Number</i> Not stated</p> <p><i>Class</i> Not stated</p> <p><i>Age</i> Mean 10.44 years</p>	SE/SC was the primary measure, but the review also included other outcomes (overt behaviour, personality functioning, and academic performance)

Main results

Authors' conclusions

- Weighted mean effect size (ES) for all 120 interventions was 0.27 (modest impact on SE/SC)
- Significantly higher mean ESs for SE/SC than non SE/SC interventions (0.57 vs 0.10, $p < 0.01$)
- Non-randomised studies had lower ESs (0.04) than randomised studies (0.38)

APPENDIX B: Data extraction for the systematic reviews (cont'd)

- Studies with no treatment controls had higher ESs than those with attention-placebo (0.34 vs 0.10 respectively).
- Interventions based on prior research findings had highest mean ES (0.71)
- Interventions based on a specific SE/SC theory yielded ESs of intermediate magnitude (0.43 and 0.53 respectively).
- Interventions based on another rationale such as an investigator defined research hypothesis, or no stated rationale produced the lowest effects (ESs 0.26 and 0.11, respectively).
- Some evidence to suggest that SE/SC programs can be as effective as non SE/SC programmes at influencing other outcomes (eg, self-reported personality functioning, academic performance).

Methodological attributes

1. What sources were searched to identify primary studies?

Psychology electronic databases and hand searching of 15 psychology/adolescent journals, and inspection of reference lists of all selected studies and previous reviews of self-esteem interventions.

2. Criteria on which the validity (or quality) of studies was assessed

No scale or checklist was used as such. However, each intervention was coded on several variables which might potentially moderate outcomes. Methodological variables were included (type of control group, use of a standard programme protocol etc).

3. What were the inclusion criteria? Studies published before 1992, children/young people aged 18 years or younger, one outcome measure of self-esteem or self-concept, control group drawn from the same population as the intervention group.

4. How were the inclusion criteria applied?

Not stated

5. How were the studies combined/analysed?

Meta-analysis, with effect sizes weighted by sample. No test for heterogeneity was reported.

6. How were judgements of validity (or quality) made?

Studies were coded primarily by the first author and an undergraduate research assistant, with the second author estimating inter-rater reliability. Co-efficient Kappa statistics were performed on a selected sample of 20% of studies.

7. How were the data extracted from primary studies?

An extensive coding system was used (see question 6).

APPENDIX B: Data extraction for the systematic reviews (cont'd)

Reviewer's comments

The interventions included in this meta-analysis varied considerably in format and media (e.g. from 1 to 95 sessions; with duration of 2 to 156 weeks, from cognitive behavioural therapy to parent training) and no test for heterogeneity was reported. This raises the question of whether it is appropriate to pool statistically such diverse studies. A variety of instruments was used to measure outcomes across studies; this compromises comparability.

Interventions which have the promotion of self-esteem and self-concept as a primary focus may be more effective than broader, general interventions designed to address a number of issues. Prevention interventions were less effective than those targeted at individuals with a confirmed self-esteem/self-concept problem.

APPENDIX B: Data extraction for the systematic reviews (cont'd)

Data Extraction: Ploeg *et al.* (1999); Ploeg *et al.* (1996)

Authors	Intervention/trial details	Participants	Outcome measures
Ploeg <i>et al.</i> (1999); Ploeg <i>et al.</i> (1996)	<p><i>Intervention</i> School based curriculum suicide prevention programs</p> <p>Education and general coping skills training. 1 to 180 sessions</p> <p>Provided by teachers, counsellors, social workers.</p> <p><i>Number of studies</i> 9</p>	<p><i>Group</i> Young people</p> <p><i>Number</i> Not stated</p> <p><i>Class</i> Not stated</p> <p><i>Age</i> 13 to 18</p>	<p>Classified into categories:</p> <ul style="list-style-type: none"> • Knowledge, attitudes and intentions • Mental health status and development • Satisfaction with program • Health risk behaviours • Social health indicators

Main results

Authors' conclusions

The curriculum had beneficial effects on potential for suicide, depression, perceived stress, and anger. There were limited effects on knowledge and attitudes. Overall, there is insufficient evidence to support school-based curriculum prevention programmes for young people. The studies produced mixed findings and both beneficial and harmful effects were identified. Young men were more likely than young women to experience harmful effects.

Only one study was rated as methodologically 'strong', with four classed as 'moderate' and four as 'weak'.

Methodological attributes

1. What sources were searched to identify primary studies?

Electronic databases (Medline, Cinahl, PsychINFO and SSCI); hand searching of 18 selected journals, searching of reference lists of articles. Searching was conducted between 1980 to 1998.

APPENDIX B: Data extraction for the systematic reviews (cont'd)

2. Criteria on which the validity (or quality) of studies was assessed

Relevant articles were rated for quality using a quality assessment tool, which was developed, pre-tested and modified, and included the following criteria: selection bias, study design, control for confounders, blinding, reliability and validity of data collection methods, withdrawals. Each of the criteria was rated as 'strong', 'moderate' or 'weak'.

3. What were the inclusion criteria?

A relevant study had to have: evaluated a school based curriculum suicide prevention programme for young people; described an intervention within the scope of public health practice in Canada; provided information on client focused outcomes and/or cost; described a prospective study; had a control or comparison group (including before/after studies); and been published in a peer reviewed journal.

4. How were the inclusion criteria applied?

Two independent reviewers rated all new articles for relevance.

5. How were the studies combined/analysed?

Studies were summarised qualitatively according to outcomes (e.g. knowledge, attitudes, behaviour).

6. How were judgements of validity (or quality) made?

All quality assessment was undertaken by two independent reviewers who met to discuss and resolve any disagreements.

7. How were the data extracted from primary studies?

A data extraction tool was used.

Reviewer's comments

There is limited evidence for the effectiveness of school-based interventions. The authors suggest that narrowly focused interventions concentrating on specific behaviours may be less effective than comprehensive, multi-strategy programmes which address high-risk behaviour in general. An initiative focusing on the multiple causative domains of risk behaviour (e.g. social environment, personality, biological factors), across different agencies/sectors (e.g. community organisations, social services) may be more effective.

An alternative explanation might be that the available evidence is poor, with only one study judged to be methodologically strong. It might be the case that school-based interventions are shown to be effective once better designed and executed studies have been conducted.

APPENDIX B: Data extraction for the systematic reviews (cont'd)

Data Extraction: Hodgson *et al.* (1995; 1996)

Authors	Intervention/trial details	Participants	Outcome measures
Hodgson <i>et al.</i> (1995; 1996)	<p><i>Intervention</i> General mental health promotion</p> <p><i>Number of studies:</i> (taken only from sections relevant to young people)</p> <p>'Effective programs applied universally within a developmental stage' n=8</p> <ul style="list-style-type: none"> • Assertiveness training Programme • Mastery Learning Programme • Seattle Social Development Project • Positive Youth Development Programme • Adolescent Alcohol Prevention Trial • ALERT Drug Prevention Programme • Midwestern Prevention Project • Campaign Against Bully Victim Problems Project <p>'Programmes directed at school age children within high risk groups' n=4</p> <ul style="list-style-type: none"> • Children of Divorce Intervention Programme (CODIP) • US Family Bereavement Programme • Social Skills Training (Bierinan) • Academic Tutoring and Social Skills Training Programme <p>Mostly conducted in the USA</p>	<p><i>Group</i> General population (including a section on school age children in vulnerable or high risk groups)</p> <p><i>Number</i> Not stated</p> <p><i>Class</i> Not stated</p> <p><i>Age</i> All ages</p>	General mental health status

Main results

Authors' conclusions:

The overall conclusion is that mental health promotion interventions can be effective.

APPENDIX B: Data extraction for the systematic reviews (cont'd)

- Effective school-based programmes have been developed which can be universally applied across a particular age group.
- Programmes directed at school age children in high-risk groups can enhance coping with negative feelings, the development of social skills and good peer relationships.

Methodological attributes

1. What sources were searched to identify primary studies?

In addition to the authors' own literature search (details not provided) literature was drawn from the American Psychological Association, UK Mind – The National Association for Mental Health, the International Union for Health Promotion and Education, and the US Institute of Medicine.

2. Criteria on which the validity (or quality) of studies was assessed

No scale or checklist used as such, but it was stated that only RCTs or quasi-RCTs would be included.

3. What were the inclusion criteria?

- Intervention should focus on developing coping skills, family and social relationships, healthy environments, meaningful activities, social policy or reduction of life stresses.
- Intervention should be replicable. Sufficient information should be provided to enable the intervention to be implemented within a different culture.
- There is convincing evidence of change which is both statistically significant and practically meaningful. This could be in a risk or protective factor or in a mental health outcome.

4. How were the inclusion criteria applied?

Not stated.

5. How were the studies combined/analysed?

Summarised qualitatively within a conceptual framework with interventions categorised as:

- Universally applied within a developmental stage
- Directed at infants or pre-school children in vulnerable or high risk groups
- Directed at school-age children in vulnerable or high risk groups

APPENDIX B: Data extraction for the systematic reviews (cont'd)

- Directed at adult and elderly populations in vulnerable or high risk groups
- Applied only to individuals with an early mental health or behaviour problem
- Applied to those with a severe mental health or behavioural problem or a diagnosed mental illness

6. How were judgements of validity (or quality) made?

Not stated.

7. How were the data extracted from primary studies?

Not stated.

Reviewer's comments

The interventions reviewed are diverse and it is not possible to isolate effective components. It is difficult to put the results of this review into context as information is not provided on the studies which were rejected on grounds of quality. What we have here is a sample of effective interventions, but we have no idea of the magnitude and characteristics of ineffective interventions.

APPENDIX B: Data extraction for the systematic reviews (cont'd)

Data Extraction: Nicholas and Broadstock (1999)

Authors	Intervention/trial details	Participants	Outcome measures
Nicholas and Broadstock (1999)	<p><i>Intervention</i> Early interventions for preventing mental illness in young people</p> <p>Interventions varied widely in length, media and content</p> <p><i>Number of studies</i> 35</p> <p>Mostly conducted in the USA</p>	<p><i>Group</i> Young people</p> <p><i>Number</i> Not stated</p> <p><i>Class</i> Not stated</p> <p><i>Age</i> 14 to 24</p>	<ul style="list-style-type: none"> • Knowledge and attitudes • Risk factors • Protective factors • Early signs/symptoms of mental ill-health

Main results

Authors' conclusions:

Intervention before mental health complications arise is advanced in the areas of substance abuse and conduct disorders, but less developed in the areas of mood, anxiety and eating disorders.

Substance abuse:

Sixteen studies (3 systematic reviews). Mostly school based interventions, with some evidence of effect on increasing knowledge of drugs, but limited evidence regarding drug behaviour.

Violence prevention:

Eight studies, mostly in schools with short follow-up periods that were unable to detect changes in attitudes towards violence.

Depression:

Three studies of young people at high risk for depression. Two studies were methodologically weak, but the better study found that classroom based skills oriented interventions can be effective

Eating disorders:

Four studies were identified with limited and inconsistent levels of effectiveness. No effects were detected on behaviour. There were some short term effects on self-esteem and body dissatisfaction.

APPENDIX B: Data extraction for the systematic reviews (cont'd)

General mental health:

Four studies, covering disparate interventions (young juveniles, first year university students, young people with chronic illness, large scale community wide intervention). The interventions were limited in their effectiveness. Peer counselling for young people with chronic illness led to some improvements in self-esteem.

Methodological attributes

1. What sources were searched to identify primary studies?

Approximately 20 electronic databases, as well as personal contacts. Searches were conducted for the time period 1995 to mid-1999.

2. Criteria on which the validity (or quality) of studies was assessed

Critical appraisal forms standardised by study design were used to extract and appraise the literature.

3. What were the inclusion criteria?

- Publication date (1995 onwards, as the review was building upon a previous one).
- Mental health topic area: substance abuse, conduct, mood, and eating disorders.
- Intervention: prevention and early intervention.
- Study design: meta analysis, systematic review, RCT, cohort study, case control study, before and after study, with a control or comparison group.

4. How were the inclusion criteria applied?

By two reviewers (it is not clear whether this was done independently).

5. How were the studies combined/analysed?

Summarised qualitatively according to categories: substance abuse prevention; conduct disorder/violence prevention; mood disorder prevention; eating disorder prevention.

6. How were judgements of validity (or quality) made?

Two reviewers independently.

7. How were the data extracted from primary studies?

A standardised form was used.

Reviewer's comments

Mental health interventions are limited in their effectiveness particularly in promoting behaviour change (eg, preventing eating disorders, preventing violence). It is not clear whether this is due to a lack of good quality studies (particularly with adequate long term follow-up) and/or because modest improvements would be expected from young people who are in relatively good mental health. Searching was only conducted between 1995-1999 as this review was based on a previous literature review, but little detail is given of this earlier work.

APPENDIX B: Data extraction for the systemic reviews (N= 7)

Data Extraction: Hider (1998)

Authors	Intervention/trial details	Participants	Outcome measures
Hider (1998)	<p><i>Intervention</i> Youth suicide prevention interventions by primary healthcare professionals</p> <p>Population based prevention (e.g. school based interventions targeting all pupils)</p> <p><i>Number of studies</i> 300* (Approximately 16 evaluations of preventative interventions)</p> <p>* The review also deals with non-intervention studies</p>	<p><i>Group</i> Young people</p> <p><i>Number</i> Not stated</p> <p><i>Class</i> Not stated</p> <p><i>Age</i> 15 to 24</p>	<ul style="list-style-type: none"> • Suicide or attempted suicide • Suicide ideation

Main results

Authors' conclusions

Population-based prevention

There are few controlled evaluations of school-based suicide prevention, including those provided by primary care practitioners. School-based interventions provided by school personnel have not found consistent improvement in young people's attitudes towards suicide. Some harmful effects have been reported, including arousing feelings of hopelessness, and acceptance of suicide as a solution to problems. Very few studies have evaluated impact on actual suicide behaviour and ideation. Where this work has been done results have shown ineffectiveness or in the case of the latter, mixed results. There is insufficient evidence to recommend universal school-based, suicide prevention programmes except where they have involved health professionals and have been based on a number of strategies, or when they have been applied to high risk groups and/or high risk behaviour.

Methodological attributes

1. What sources were searched to identify primary studies?

Approximately 20 databases/websites were searched, library catalogues, personal contact and reference lists of studies.

APPENDIX B: Data extraction for the systematic reviews (N= 7)

2. Criteria on which the validity (or quality) of studies was assessed

The schedule developed by the Group Health Cooperative of Puget Sound was used, adapted by the New Zealand Guidelines Group of the National Health Committee. Evidence grades were applied to all studies (I= 'evidence obtained from at least one meta analysis' to V 'opinions of respected authorities based on clinical experience, or reports of expert committees').

3. What were the inclusion criteria?

- Study designs: opinion articles, descriptive studies, review articles, case control studies, cohort studies, controlled trials, randomised controlled trials and meta analyses.
- Specific exclusions: participation rate <50%; sample size <20, studies with discrepancies in their descriptions of methods/results; studies that did not clearly describe their methods/results; letters; non-English language articles.

4. How were the inclusion criteria applied?

Not stated.

5. How were the studies combined/analysed?

Summarised qualitatively in terms of conclusions and specific strengths and weaknesses. The effectiveness section is organised into sub sections dealing with identification and assessment of suicide risk, management in primary care, and primary care based treatment.

6. How were judgements of validity (or quality) made?

By a single researcher.

7. How were the data extracted from primary studies?

Not stated.

Reviewer's comments

Although a comprehensive literature search was undertaken, no unpublished material was included, and not all relevant articles could be included due to a short time frame for completing the review (acknowledged by the authors). Judgements of study quality were made by one author, limiting the reliability of the findings.

APPENDIX B: Data extraction for the systematic reviews (cont'd)

Data Extraction: Durlak and Wells (1997)

Authors	Intervention	Participants	Outcome measures
Durlak and Wells (1997; 1998); Durlak (1998)	<p>Primary prevention mental health programmes (aimed at behavioural and social problems) to children and young people</p> <p><i>Number of studies</i> 177</p> <p><i>Characteristics of studies</i> 108 randomised 40 attention placebo controls 141 attrition below 10% 45 follow-up data collected</p> <p><i>Settings</i> School (129) General hospital or dental clinic (26) Combination or other (14) Home (4) Not reported (4)</p>	<p><i>Group</i> Children and young people</p> <p><i>Participants</i> Children, young people, parents, teachers Mean age 9.3 years</p> <p><i>Number</i> In 34% of studies the sample was 50 or less; In 29% the sample was 100 or more.</p> <p><i>Class</i> 'White', 'not White', mixed</p>	<p>Behavioural and social functioning</p> <p>'Problem and competency-measured outcomes'</p> <p>159 multiple outcomes measured; 60 outcome measures used</p>

Main results

Authors' conclusions

Most types of primary prevention programmes achieve significant positive effects. Most interventions significantly reduce problems and significantly increase competencies, affecting functioning in multiple adjustment domains. Primary prevention programmes achieve results that possess practical as well as statistical significance.

Methodological attributes

1. What sources were searched to identify primary studies?

PsychLit; hand search of 15 journals which typically publish articles related to this population; reference lists from identified studies; textbooks on prevention; 'various published articles'

APPENDIX B: Data extraction for the systematic reviews (cont'd)

2. Criteria on which the validity (or quality) of studies was assessed

Not stated.

3. What were the inclusion criteria?

Studies had to:

- Be about primary prevention (defined as an intervention designed specifically to reduce the future incidence of adjustment problems in currently normal populations, including efforts directed at the promotion of mental health).
- Involve a control condition.
- Be reported by the end of 1991.
- Be a programme with a central mental health thrust, to be directed primarily at children's and young people's behavioural and social functioning.

4. How were the inclusion criteria applied?

Not stated.

5. How were the studies combined/analysed?

Effect sizes of pooled standard deviation of the intervention and control groups.

6. How were judgements of validity (or quality) made

Not stated.

7. How were the data extracted from primary studies?

Each study was coded on 51 variables falling into seven major categories, three research assistants employed over different time periods coded studies; 20 studies coded by each rater were selected randomly and compared to the first author who had trained the assistant.

Reviewer's comments

Outcomes are not clearly defined. The criteria used for categorizing interventions are not given or justified in terms of relevant theory. Confidence in the results is difficult because of lack of critical appraisal of studies.

APPENDIX C: Outcome evaluations reviewed in included systematic reviews (N=16)

Study	Included Reviews (N = 7)						
	Tilford <i>et al.</i> (1997)	Haney and Durlak (1998)	Ploeg <i>et al.</i> (1999, 1996)	Hodgson <i>et al.</i> (1995; 1996)	Nicholas and Broadstock (1999)	Hider (1998)	Durlack and Wells (1997)
Coping							
Sheridan <i>et al.</i> (1984)		T					T
Depression							
Clarke <i>et al.</i> (1995)					T	T	
Gillham <i>et al.</i> (1995)						T	
Jaycox <i>et al.</i> (1994)						T	
Koniak-Griffin (1994)	T						
Suicide / Self-harm							
Abbey <i>et al.</i> (1989)			T			T	
Ashworth <i>et al.</i> (1986)			T			T	
Eggert <i>et al.</i> (1994)						T	
Eggert <i>et al.</i> (1995)			T		T	T	
Kalafat and Elias (1994)						T	
Klingman and Hochdorf (1993)	T		T			T	
Orbach and Bar-Joseph (1993)			T			T	
Shaffer <i>et al.</i> (1991)			T			T	
Shaffer <i>et al.</i> (1990)			T			T	
Spirito <i>et al.</i> (1988)			T			T	
Vieland <i>et al.</i> (1991)			T			T	

N.B. No studies on self-esteem were already reviewed in included reviews.

APPENDIX D: Description of characteristics of 'sound' outcome evaluations (N = 5)

Reference	Country	Population	Setting	Objectives	Providers	Programme Content
Self esteem						
Bredehoft and Hey (1985)	USA	Unstated gender; young people aged 11-19 and their parents; one young person and two parents in each family	Not stated	To strengthen self-esteem, family togetherness/flexibility, and conflict resolution	Psychologist; trained facilitator not further defined	Eight structured classes, which taught how to: build self-esteem in others by modelling; encourage responsibility and self-esteem in self and others; increase listening and positive communication skills, respond to criticism constructively; offer encouragement to children of all ages.
Haldeman and Baker (1992)	USA	Young women aged 16-19	Secondary education; rural private school	To determine the effectiveness of cognitive instructional versus cognitive self-instruction to reduce irrational thoughts	Counsellor	Six weekly classes, which instructed participants to recognize self-defeating thoughts, replace them with self-improving thoughts, and reinforce those with self-reinforcing thoughts, using an instructional booklet, role playing session, and opportunity for further individual counselling sessions. Control group received assignments from the instructional manual and opportunity for further counselling only.
Depression						
Clarke <i>et al.</i> (1993)	USA	Both genders; Grade 9 and 10 young people; mean age of intervention group = 15.4 years, mean age of control group = 15.29 years	Suburban secondary school	Not explicitly stated, but the authors indicate a wish to test the efficacy of a low intensity primary prevention programme for symptomatology and disorder	Teacher	Three structured lectures and two 20 minute videotapes covering symptoms, causes and treatment of depression, followed by lectures and discussions which emphasized the treatable nature of depression, and encouraged young people to seek intervention when appropriate and also to increase their daily rates of pleasant activities to prevent depression onset.

Reference	Country	Population	Setting	Objectives	Providers	Programme Content
Depression (cont'd)						
Clarke <i>et al.</i> (1993)	USA	Both genders; Grade 9 and 10 young people; mean age of intervention group = 15.24 years; mean age of control group = 15.03 years	Suburban secondary school	To test a behavioural skills training intervention in which young people were trained to increase pleasant activities in order to prevent depressive symptomatology	Teacher	Five structured classes on symptoms, causes and treatments of depression, and on behavioural training to increase daily rates of pleasant activities and understand the relationship between these activities and mood level. Control group received the usual health curriculum.
Suicide						
Silbert and Berry (1991)	USA	Both genders; Grade 10 young people aged 14 to 18	Urban secondary school	To examine the effectiveness of a suicide prevention unit on students' levels of stress, anxiety, and hopelessness	Teacher	One month of health classes on understanding and coping with suicide and depression; ways to help a suicidal friend; and information about community resources; using class discussion sessions and papers, videotapes, and a Personal Wellness Handbook. Control group received standard health class curriculum.

APPENDIX E: Description of methodology of 'sound' outcome evaluations (N = 5)

Reference	Design	Number of conditions / Sample size	Follow-up interval	Participation rate/ Attrition	Authors' judgement about effect	Reviewers' judgement about effect
Self-esteem						
Bredehoft and Hey (1985)	RCT	2 groups Intervention (I): 13 families Control (C): 14 families	Immediately after the intervention	3 families or 10%-2 families dropped out after pretest data collected; 1 family had incomplete attendance at intervention condition and was excluded	Effective for knowledge: treatment mothers had a greater amount of empathy and lower amount of dissonance with their husbands and perceived a lower amount of actual conflict; treatment young people perceived less total dissonance and less dissonance with fathers Effective for fathers' perception of family adaptability and cohesion Ineffective for self-concept	Unclear for knowledge Unclear for family cohesion and adaptability Ineffective for self-concept
Haldeman and Baker (1992)	RCT	2 groups I: 21 individuals C: 20 individuals	Not stated other than after intervention finished	Not stated	Effective for self referrals Effective for knowledge	Unclear for observed behaviour Effective for knowledge
Depression						
Clarke <i>et al.</i> (1993)	RCT	2 groups I: 361 individuals C: 261 individuals	Immediately after the intervention Three weeks after the intervention began	Reported but unclear Authors report 54 subjects lost by follow-up but tables indicate that 109 were lost	Ineffective for attitudes to depression Ineffective for self-referral for further counselling Ineffective for depressive symptomatology	Ineffective for attitudes Ineffective for self-referral Effective for depressive symptomatology in males immediately following intervention Ineffective for depressive symptoms in females and in males at 12-week follow-up

Reference	Design	Number of conditions / Sample size	Follow-up interval	Participation rate/ Attrition	Authors' judgement about effect	Reviewers' judgement about effect
Depression (cont'd)						
Clarke <i>et al.</i> (1993)	RCT	2 groups I: 190 individuals C: 190 individuals	Immediately after the intervention Three weeks after the intervention began	Attrition rate 21% 80 participants lost by 12-week follow-up	Ineffective for attitudes to depression Ineffective for self-referral for further counselling Ineffective for depressive symptomatology	Unclear for attitudes Unclear for self-referral Unclear for depressive symptomatology
Suicide						
Silbert and Berry (1991)	CT	2 groups I: 267 individuals C: 56 individuals	Immediately after the intervention Two months after post-test 1 was administered	No information provided as it appeared that no-one dropped out of the study	Ineffective for stress, anxiety, and hopelessness between intervention and control groups Effective for anxiety and hopelessness within intervention group at post tests Ineffective for knowledge between intervention and control groups Effective for knowledge within intervention and control groups	Ineffective for stress, anxiety and hopelessness Ineffective for knowledge

RCT = Randomised Controlled Trial

CT = Controlled Trial (No randomisation)

APPENDIX F: Aims, sample characteristics and findings of studies examining young people's views

Study	Aims and objectives	Sample Characteristics	Findings
Aggleton <i>et al.</i> (1995)	<p>*To explore factors that contribute to, and protect against, psychosocial disorders among young men</p> <p>*To gain insight into what it is like to be a young man in the 1990s</p>	<p>Location: young men recruited from a range of locations (centres for young unemployed people; projects working with homeless; resettlement projects; mental health drop-in centres; recreational and sports clubs) throughout the North and South of England</p> <p>Sample number: 160</p> <p>Age range: 16 to 20 years</p> <p>Gender: all male</p> <p>Class: not stated</p> <p>Ethnicity: included young men from minority ethnic communities</p> <p>Other information: 45 young men who were at high risk from psychosocial disorders; 45 with history of serious drug and alcohol misuse or serious anti-social behaviour and/or self harm; the 45 other young men were those participating in recreational activities</p> <p>Exclusions: sample chosen to represent young men with particular vulnerabilities; this may under-represent their young men</p>	<p>Barriers</p> <ul style="list-style-type: none"> * Sources of stress and distress (described as often interlinked and cumulative): family discord; unemployment; not having a stable home; having nothing to do; fears for the future; relationship difficulties with partners * Central to views on what caused anger, annoyance and frustration: perceived restrictions on freedom; deep anxiety about violence; lack of material resources. * Identified as getting in the way of ambitions: lack of anything to do/places to go; not being taken seriously by adults; the potential for getting into trouble with the police * Talking about feelings seen as unrealistic <p>Facilitators</p> <ul style="list-style-type: none"> * Problems were dealt with by: being creative; doing sport; (for some) doing drugs and harming self * Getting angry seen by some as way of coping with feelings of depression * Sources of support: male friends for a source of solidarity, companionship and identity; 'special' (usually girl) friends for emotional support

APPENDIX F: Aims, sample characteristics and findings of studies examining young people's views (cont'd)

<p>Armstrong <i>et al.</i> (1998)</p>	<p>*To explore children's views about mental and emotional health problems *To examine how young people think about mental health *To examine young people's understandings of people affected by mental distress *To examine ideas about help-seeking and relevant professionals</p>	<p>Location: young people recruited from schools (including residential schools), minority ethnic communities; mental health system; local user and carer groups in Scotland Sample number: 169 (approx half of those invited to participate from schools agreed to take part; low response rate from those identified with mental health problems and those living with a mentally ill parent) Age range: 12 to 24 years Gender: 59% female Class: not stated Ethnicity: included young people from minority ethnic communities (n=25) Other information: young people attending school = 145; young people identified with mental health problems = 16; young people with mentally ill parents = 8 Exclusions: none stated</p>	<p>Barriers * Identified as causing anxiety/depression: conflicts or loss in the family or peer relationships * Identified as helping young people feel bad: exam stress; peer pressure; boredom and environmental and social factors, such as poverty Facilitators * Identified as helping in given difficult circumstances: support from family and friends in difficult times; access to trusted adult to talk about problems in confidence; more activities to counteract boredom; having outlet for aggression when angry * Identified as valuable by young people living with a mentally ill adult: meeting in a group with others in a similar position; being able to cope with life's ups and downs * Identified as helping with feeling good: personal achievement; feeling good about yourself; pets; presents and having fun * Identified as something that should be done: provision of better advice, "not just information on what adults think is important"; more money for services such as Child Line telephone help line.</p>
Study	Aims and objectives	Sample Characteristics	Findings
<p>Balding <i>et al.</i> (1998)</p>	<p>*To look at young people's mental health in the context of their social relationships and aspects of their physical health *To examine the concerns of young people without focussing on the small minority who manifest acute mental illness</p>	<p>Location: students from 122 secondary schools from 21 different urban, suburban and rural areas of England and Scotland representing 6 health authorities (Anglia and Oxford; South and West; South Thames; Trent; West Midlands and Ferth Valley) Sample number: 16, 732 Age range: 12 to 15 years Gender: 47% female Class: 37% of schools had between 6 and 10% of children who qualified for a free school lunch Ethnicity: 32% of schools had between 2 and 5% of young people from ethnic minorities Other information: 6% middle school; 72% comprehensive school; 2% grammar school; 3% independent; 6% secondary modern; 7% special school; 4% other Exclusions: those who were absent from school</p>	<p>Barriers *Three top worries are 'the way you look' (with 36% rating this as worrying a lot about or quite a lot); family (26%) and school (24%). *Other worries were rated in the following order: money problems; problems with friends; health problems; career problems; drugs; unemployment; smoking; HIV/AIDS; drinking and gambling. *Difference between males and female in these top worries revealed that for both 'family' and the 'way you look' are both the top two worries, but the third for girls is 'friends' and the third for boys is 'drugs'. Overall, girls were found to worry more than boys and older pupils to worry more than younger ones.</p>

APPENDIX F: Aims, sample characteristics and findings of studies examining young people's views (cont'd)

<p>Bowen (1997)</p>	<p>*To identify the mental health concerns of teenagers to inform the development of a teacher's resource pack</p>	<p>Location: students from a South Tees comprehensive school (with full-time school nurse) in a personal and social education class Sample number: 80 Age range: 14-15 years Gender: males and females Class: not stated Ethnicity: not stated Other information: attempts made to ensure those with reading difficulties understood the questionnaire Exclusions: those who were absent from school</p>	<p>Barriers * Study abstract highlights worries about: self-esteem and self-image, family and personal relationships, loss and bereavement and teacher/parent expectations. * Text suggests these areas also a source of unhappiness, anger and confusion * 33% did not feel able to talk about their feelings * 17% felt they have nobody they could talk to about problems</p> <p>Facilitators * Young people felt more able to talk to friends than parents * View expressed that loss and bereavement should be addressed (in a teachers' resource pack)</p>
<p>Derbyshire (1996)</p>	<p>*To explore stressful life events and daily hassles, depression and physical symptoms</p>	<p>Location: Students from a mixed sex comprehensive school in an urban industrial area of east Lancashire Sample number: 112 Age range: 11 to 14 years Gender: males and females Class: not stated Ethnicity: not stated Other information: none Exclusions: those who were absent from school</p>	<p>Barriers * Stressful circumstances (in order, one that made them feel the worst first): not having enough money; conflict at home, either with or between parents; having nothing to do; feeling left out' * Additional circumstances suggested by study participants: fights with brothers, sisters or friends; problems on the school bus; large quantities of homework and bullying or name calling</p>

APPENDIX F: Aims, sample characteristics and findings of studies examining young people's views (cont'd)

Study	Aims and objectives	Sample Characteristics	Findings
Friedli and Scherzer (1996)	*To examine the extent to which young people are affected by and are aware of mental health problems and to describe how young people tackle with problems and anxieties	<p>Location: young people from the North and South of England</p> <p>Sample number: 1853</p> <p>Age range: 11 to 24 years</p> <p>Gender: 52% female</p> <p>Class: middle and working class</p> <p>Ethnicity: 10% from ethnic minorities</p> <p>Other information: none</p> <p>Exclusions: none stated and cannot infer from other information given.</p>	<p>Barriers</p> <p>* Concerns: coping with the daily stresses of school and family life; environmental and social issues such as pollution, crime and unemployment</p> <p>Facilitators</p> <p>* Things that would improve quality of life: financial security; academic achievement; more employment opportunities</p> <p>* Coping strategies: listening to music (considered most helpful strategy for addressing and preventing stress and anxiety); discussing problems with friends or relatives; physical activity; keeping busy; resting; seeking advice from a professional and consulting books and magazines; drugs (small minority)</p> <p>* Gender differences: men "preferred doing to talking"; men went to the pub to deal with problems and exercised to de-stress; more women had seen a counsellor</p>
Gallagher <i>et al.</i> (1992)	<p>*To discover the self expressed, self-determined needs/concerns of young people so that guidance might be made more relevant and effective</p> <p>*To examine differences according to gender, age, school type and religious affiliation</p>	<p>Location: students from two further education colleges; five secondary schools and three grammar schools from the Western area of Northern Ireland.</p> <p>Sample number: 446</p> <p>Age range: 15 to 18 years</p> <p>Gender: 49% female</p> <p>Class: not stated</p> <p>Ethnicity: not stated</p> <p>Other information: 43% single sex schools; 63% Catholic, 37% Protestant; schools encouraged to select sample representing low, medium and high academic ability</p> <p>Exclusions: schools not chosen to participate; those in classes not selected by school personnel to take part; those who were absent from school; those who incorrectly filled in the questionnaire (n=6)</p>	<p>Barriers</p> <p>* Areas of worry (in order, most worrying first): finding a job; myself; choosing a job; opposite sex; myself and others; starting work; at home and at school/college.</p> <p>* Top ten specific worries: 'never finding a job'; 'people close to me dying'; 'preparing for an interview'; 'answering questions well at an interview'; afraid to make wrong decisions about a job'; 'asking the right questions' at an interview'; 'what the future holds'; 'the way I look'; 'school work or exams'.</p> <p>* Girls worried more across all items than boys, older pupils worried less</p> <p>* Grammar school pupils worried more about exams and less about standing up for themselves/being bullied than did secondary school pupils</p>

APPENDIX F: Aims, sample characteristics and findings of studies examining young people's views (cont'd)

Study	Aims and objectives	Sample Characteristics	Findings
Gallagher and Millar (1996)	<p>*To determine the personal and social concerns of young people in order to provide those working with young people a greater understanding of their needs</p> <p>*To examine age and gender differences in concerns</p>	<p>Location: students from 24 secondary and grammar schools across Northern Ireland</p> <p>Sample number: 3983</p> <p>Age range: 15 to 19 years</p> <p>Gender: 60% female</p> <p>Class: not stated</p> <p>Ethnicity: not stated</p> <p>Other information: 43% single sex schools; schools encouraged to select classes representing low, medium and high academic ability</p> <p>Exclusions: students in schools who did not agree to participate; students in classes not selected by school personnel to take part; those who were absent from school; on the day questionnaire administered; those who incorrectly completed questionnaire</p>	<p>Barriers:</p> <p>* Areas of worry (in order, most worrying first): schoolwork; choosing a job/course; powerlessness; finances; change; obtaining a job/course; myself; verbal communication; starting work/college; opposite sex; at home; information seeking; and social confidence.</p> <p>* Top ten specific worries: whether I will pass my exams; what will happen if I don't do well enough in school; not getting good enough grades to get a job/course; never finding a job; getting down to studying; coping with the stress of exams and coursework; what kind of work I will end up doing; not making anything out of my life; being under pressure from schoolwork; people close to me dying.</p> <p>* Girls worried more across all items than boys, older boys worried less than younger boys</p>

APPENDIX F: Aims, sample characteristics and findings of studies examining young people's views (cont'd)

<p>Gordon and Grant (1997)</p>	<p>*To examine the emotional and mental health of young people with in order to inform how best to address their mental health needs. *To give young people a mechanism to express in their own words how they feel</p>	<p>Location: students from 13 state and 3 independent schools across different areas of Glasgow, Scotland Sample number: 1634 (response rate = 66%) Age range: 13 to 14 years Gender: males and females Class: not stated Ethnicity: not stated Other information: none Exclusions: those who were absent from school; those who did not obtain parental consent/forgot bring consent form to school</p>	<p>Barriers * Factors that made young people feel bad or unhappy: (to do with others) being teased or put down by others; difficulties with friendships; not getting on with parents and being blamed unfairly; (to do with self) not doing well at school or sport; not being 'good'; physical appearance; and personal attributes; (to do with situation) death of family member/friend, boredom, staying in, the weather; having no money; violence; fears about going out; domestic chores and racism</p> <p>Facilitators * Factors that made young people feel good or happy: (to do with others) friends (e.g. having lots and getting respect from them); boyfriends/girlfriends (e.g. being fancied); families (feeling loved and cared for); being congratulated and receiving compliments; (to do with self) physical activity; going out; solitary pastimes; doing well at school; doing well at sport; and physical appearance; (to do with situation) the end of the school day; winning at football and money. * Identified as someone to talk to: friends (64%); mums (26%); teachers (6%). 8% said they had nobody they could or wanted to talk to. * Characteristics of ideal person to talk to: trustworthy; does not laugh or take the situation lightly; good at listening; caring and sensitive; only gives advice when it is asked for * Coping strategies for feeling bad classified by authors into: expressing or releasing feelings (e.g. telling someone; crying; hitting out at objects or others) and coping with feelings (e.g. find a solution/try and work things through; try to cheer yourself up; or, less commonly expressed, keeping feelings to yourself or hoping things will go away)</p>
<p>HEA (1995)</p>	<p>*To examine what young people worry about and what makes them feel good about themselves in order to find out what adults need to do help young people achieve their potential in later life</p>	<p>Location: young people from the South of England (53%); the North of England (24%) and the Midlands (21%) Sample number: 1054 Age range: 13 to 14 years Gender: male and female Class: AB = 39%; C1 = 20%; C2 = 20% and DE = 6% Ethnicity: Not stated Other information: 94% from mixed sex schools Exclusions: Those who were absent from school</p>	<p>Barriers * Greatest worries were exams, future jobs and careers * Girls worry more than boys * Girls more concerned about their appearance & being liked/admired by others * Boys more worried about possibility of failure in sport and exams</p> <p>Facilitators *Parents were a source of self-esteem while teachers were not</p>

APPENDIX F: Aims, sample characteristics and findings of studies examining young people's views (cont'd)

Study	Aims and objectives	Sample Characteristics	Findings
Porter (2000)	<p>*To inform the development of mental health resources.</p> <p>*To reflect on what mental health means to young people; to map out existing strategies to maintain well-being; to identify the best way to communicate possible coping strategies to young people</p>	<p>Location: From Edinburgh, Glasgow, Kirriemuir and the Borders</p> <p>Sample number: 9 focus groups</p> <p>Age range: 12-16 years</p> <p>Gender: males and females</p> <p>Class: from social classes DE, AB, C1C2</p> <p>Ethnicity: not stated</p> <p>Other information: none</p> <p>Exclusions: not stated</p>	<p>Barriers</p> <p>* Stresses categorised by researchers into three levels: 1) everyday, easily identifiable by young people (exam pressures; falling out with friends; boredom); 2) slightly less common, more serious (bullying, lack of money; self-confidence; divorce); 3) more serious, usually outside majority of young people's experience (bereavement; drugs; rape; pregnancy)</p> <p>Facilitators</p> <p>* Coping strategies categorised into two levels: 1) talking to friends and solitary activities (e.g. listening to music; writing things down; long bath; physical activity; eating chocolate; sleeping); 2) talking to an adult/person in authority</p> <p>* Views on design of information resources: standard leaflets hold no appeal; emphasis on what to do rather than problem; resources that inform indirectly and primarily serve another purpose (e.g. diary; postcards); short, punchy and positive messages; directed at young people rather than adults; designed by young people for young people.</p>
Tolley <i>et al.</i> (1998)	<p>*To discover what the concerns and worries of young people are to find out how to make people listen to them</p>	<p>Location: Recruited from two secure units, four comprehensive schools; one grammar school; two youth [projects]; one residential school and one scout group in several different towns and cities throughout England</p> <p>Sample number: 70</p> <p>Age range: 10-17 years</p> <p>Gender: 28 females; 42 males</p> <p>Class: Not stated</p> <p>Ethnicity: 73% white; 27% from ethnic minorities</p> <p>Other information: 67% no religion</p> <p>Exclusions: none stated</p>	<p>Barriers</p> <p>* Concerns emphasised in conclusion: drugs; bullying; racism and relationships; peer pressure</p> <p>* Further concerns described in text: having too big a workload at school/pressure to do well from teachers; not knowing what to do next (eg. what course to do after leaving school); money; pollution; other people smoking and drinking; material circumstances and war</p> <p>Facilitators</p> <p>* Views on adults: (in general) lack of understanding particularly from parents and teachers; treatment as if a risk to society (MPs); rude treatment that is different from that given to adults (GPs); social workers understanding due to their contact with young people</p>

APPENDIX G : Methodological characteristics of studies examining young people's views

Study	Quality criteria met*	Sampling (identification & selection methods)	Data collection (Instrument/setting/reliability/validity)	Data analysis (approach/reliability/validity)	Participation (in research process, consent)
Aggleton <i>et al.</i> (1995)	B, C, D, G	No detail	<ul style="list-style-type: none"> * Focus groups and individual semi-structured interviews * No detail given of interview topics or setting * Study used "trained and experienced interviewers" * Interviewees assured that their names and location of * Interviews would not be mentioned in any quotations used 	<ul style="list-style-type: none"> * Full transcripts made of interviews * "Data were analysed thematically in relation to each of the [stated]... objectives" 	<ul style="list-style-type: none"> * Informed consent obtained for all participants
Armstrong <i>et al.</i> (1998)	A, B, C, D, E, F, G	<ul style="list-style-type: none"> * Schools and other groups recruited to identify individuals * Invitation letter sent to individuals * Some teachers also selected from those consenting to participate * Authors report on the possible effects of identification and selection of participants 	<ul style="list-style-type: none"> * 17 mixed and single sex focus groups, 18 individual interviews * Interviews held in schools, youth projects, support groups, at home * Interview schedule presented in report * Vignettes to explore definitions and forms of support * Self-completion exercises * Interviews with young people from ethnic minority communities conducted by workers from those communities * Commitment to confidentiality given * Interview findings checked with interviewers * Piloted with 4 groups of young people 	<ul style="list-style-type: none"> * Interviews recorded and fully transcribed * Use of NU*DIST software * Framework initially based upon interview schedule topics, supplemented as themes developed from examination of data for themes and issues 	<ul style="list-style-type: none"> * Consent requested of young people and a parent/guardian

* Key

- A. Does the study give an explicit account of theoretical framework and/or include a literature review?
- B. Did the report explicitly and clearly state the aims of the study?
- C. Did the report adequately describe the context of the study?
- D. Did the report provide clear details of the sample used and how the sample was recruited?
- E. Did the report provide a clear description of the methods used in the study including methods used to collect data and methods of data analysis?
- F. Are there attempts made to establish the reliability and/or validity of the data analysis?
- G. Were sufficient original data included to mediate between data and interpretation?

APPENDIX G : Methodological characteristics of studies examining young people's views (cont'd)

Study	Quality criteria met*	Sampling (identification & selection methods)	Data collection (Instrument/setting/reliability/validity)	Data analysis (approach/reliability/validity)	Participation (in research process, consent)
Balding <i>et al.</i> (1998)	B, C, D, E, G	<p>* Schools identified and selected by a mixture of targetting by Health Authorities and schools volunteering themselves (survey is annual event)</p> <p>* Participating schools given instructions (not always followed) on how to select pupils for sample.</p>	<p>* "Self-completion Health Related Behaviour Questionnaire (HBRQ)" (in one of 7 sections) contains question "how much do you worry about the problems listed below?" followed by list of 13 problems each with rating scale from 0 = "never" to 4 = "a lot"; measures of health locus of control and self-esteem; further relevant questions about: trusted adults; who specified problems would be shared with; getting on with adults; fear of school due to bullying.</p> <p>* Questionnaire administered by teachers in school time</p> <p>* Students assured of anonymity of questionnaires. Immediately after completion put into sealed envelopes</p> <p>* HBRQ "in continual development since 1979"; version 17 used in this study.</p> <p>* Teachers and pupils were consulted for relevance and acceptability of questions in initial version of questionnaire</p> <p>* Authors state "confidence in the reliability of the questions can be achieved"</p>	<p>* Comparison of ratings of different items from list of worries</p>	<p>* A number of pupils were involved in the initial development of the study's questionnaire.</p> <p>* No mention of consent</p>
Bowen (1997)	B, C	No detail	<p>* Questionnaire (not described). Results suggest it contained both fixed and open response questions</p> <p>* Questionnaire handed out in personal and social education lessons at school by working group members</p> <p>* Questionnaire read out aloud and discussions held</p> <p>* No mention of commitment to confidentiality</p> <p>* Questionnaires "tested on a small group of teenagers"</p>	No detail	No detail

* Key

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APPENDIX G : Methodological characteristics of studies examining young people's views (cont'd)

Study	Quality criteria met*	Sampling (identification & selection methods)	Data collection (Instrument/setting/reliability/validity)	Data analysis (approach/reliability/validity)	Participation (in research process, consent)
HEA (1995)	C	No detail	* Structured questionnaire (no detail) * 12 single sex discussion groups * No mention of confidentiality * No detail relevant to questionnaire reliability/validity	No detail	No detail
Derbyshire (1996)	B, C, E	No detail	* Questionnaire containing a list of stressful circumstances "rated on a scale 0-4, saying how often it had occurred and how bad it had felt"; a checklist of physical symptoms; a measure of childhood and adolescent depression * No detail of questionnaire administration * "Opportunity ... given for additional comment and feedback" * No mention of confidentiality * initial pilot test "with 14 young volunteers"	No detail	* Author reports young people's additional comments about sources of stress that were of concern to them and were not in the questionnaire. Examples listed in report. * No mention of consent
Friedli and Scherzer (1996)	B,C	No detail	* Interviews (no detail given)	No detail	No detail

* Key

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APPENDIX G : Methodological characteristics of studies examining young people's views (cont'd)

Study	Quality criteria met*	Sampling (identification & selection methods)	Data collection (Instrument/setting/reliability/validity)	Data analysis (approach/reliability/validity)	Participation (in research process, consent)
Gallagher <i>et al.</i> (1992)	A, B, C, D, E, G	<ul style="list-style-type: none"> * Sample of schools chosen as being representative of school system (no further detail) * Each institution asked to ensure participation of pupils with low, medium and high academic achievement 	<ul style="list-style-type: none"> * Structured questionnaire containing 86 items of potential concern each with four-point rating scale, 1='never worried' to 4 = 'always worried' * Items grouped into 8 categories of worry * Questionnaires administered by researchers in schools over a two week period * Questionnaires completed anonymously * Draft version of questionnaire piloted with 25 secondary-school pupils and six student generated items added 	<ul style="list-style-type: none"> * Calculated mean scores and ranked each item and each category * Conducted correlational analysis, multivariate analyses of variance and multivariate analyses of covariance using the 8 categories of worry, age, gender, academic orientation (grammar/secondary school), religious affiliation (Catholic/Protestant) and school type (single/mixed sex). 	<ul style="list-style-type: none"> * Additional relevant items requested from young people in pilot * No mention of consent
Gallagher and Millar (1996)	A, B, C, D, E, G	<ul style="list-style-type: none"> * Schools identified through Educational Department and invited to participate * Participating schools selected a sample of low, average and high ability class groups 	<ul style="list-style-type: none"> * Structured questionnaire containing 138 items of potential concern each with four-point rating scale, 1='never worry' to 4 = 'always worry' * Items grouped into 13 categories of worry * Questionnaires completed anonymously in school time * Earlier version of questionnaire piloted with 28 young people, examined for completeness and revised (Millar <i>et al.</i>, 1993) * Factor analysis using data from this study (Millar and Gallagher, 1996) supported majority of the 13 categories. Reliability, content and construct validity found to be high. 	<ul style="list-style-type: none"> * Calculated mean scores and ranked each item and each category * MANOVA conducted with scores for the 13 categories of worry; age and gender, controlling for academic orientation (grammar/secondary school) and school type (single/mixed sex) 	<ul style="list-style-type: none"> * Additional relevant items requested from young people in pilot of earlier version * Version of questionnaire used in this study also encouraged contribution of further items. Millar and Gallagher (1996) report that this was done by 13%. No further detail given. * No mention of consent

* Key

- A. Does the study give an explicit account of theoretical framework and/or include a literature review?
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APPENDIX G : Methodological characteristics of studies examining young people's views (cont'd)

Study	Quality criteria met*	Sampling (identification & selection methods)	Data collection (Instrument/setting/reliability/validity)	Data analysis (approach/reliability/validity)	Participation (in research process, consent)
Gordon and Grant (1997)	A, B, C, D, E, F, G	<ul style="list-style-type: none"> * No detail of how schools identified or selected * Schools asked to administer questionnaires to all 3rd years present 	<ul style="list-style-type: none"> * Self-completion questionnaire, with selection from "field of words" (collection of words) to describe current feelings, an open "Dear Diary" (How I feel today) section and following open response questions:"three hings that make me (happy/ sad/ feel good about myself / feel bad about myself) are...."; "I can talk about my feelings to..." " If I felt bad I would...."; " When I feel bad I would like it if....."; * Cartoon character, "Howie Feel", appeared on questionnaire and promotional materials * Questionnaires administered by teachers in school * Students assured of anonymity and that questionnaires would not be read by school staff * Questionnaire piloted on a number of occasions (no further detail). 	<ul style="list-style-type: none"> * All questionnaires read and re-read * Coding frame developed based on main points made, adapted when frane failed to account for recurring responses * Principles for analysis were to not infer meaning on young people's responses that were not explicit or impose a framework on what they said 	<ul style="list-style-type: none"> * "Some groups" of teenagers helped select items for the field of words. * Consent requested from parents

* Key

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- B. Did the report explicitly and clearly state the aims of the study?
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APPENDIX G : Methodological characteristics of studies examining young people's views (cont'd)

Study	Quality criteria met*	Sampling (identification & selection methods)	Data collection (Instrument/setting/reliability/validity)	Data analysis (approach/reliability/validity)	Participation (in research process, consent)
Porter (2000)	B, C, E, G	No detail	<ul style="list-style-type: none"> * Focus groups using friendship pairs (members of each group were of same sex, similar social class, age and geographical area) * Participants asked to imagine and discuss the following in pairs: being a script writer for a soap opera who had to introduce a new character ("someone you can identify with"); the character's personality, how they experience and cope with a mental health related problem ("something that might stress them..."); the main message that they want to send out to viewers about dealing with the particular problem * Participants completed speech and thought bubbles in cartoons * Existing mental health resources examined and discussed * Interview schedule presented in report * 'Moderators' conducted interviews, setting not detailed * No mention of confidentiality * No detail relevant to questionnaire reliability/validity 	No detail	No detail
Tolley <i>et al.</i> (1998)	B, C, D, G	* National Children's Bureau helped identify sources to recruit young people	<ul style="list-style-type: none"> * Interviews (some group interviews, unclear how many) held in schools, children's homes, Secure units and youth centres * Interviews conducted by one or more of study research team (young people) * Interview questions included: What concerns you most as young people? Is there anything else that you think about a lot? How can we get these children more involved so they do have a say? How can adults run children's charities so that children and young people can be heard? What else can we do to help get children and young people a better deal wherever they live? * No mention of confidentiality * No detail relevant to questionnaire reliability/validity 	No detail	<ul style="list-style-type: none"> * Study designed and conducted by young people (7 aged 14 to 16) * No mention of consent

* Key

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APPENDIX H: Synthesis Matrix

Theme of School

Note: In all tables, barrier or facilitator items in italics are those expressed solely by a socially excluded group.

Barriers	Facilitators	Interventions from the in-depth review
<p>School (2 - 4, 6 -12)</p> <p>Stress of having too heavy a work load that eats into free-time (5, 8 ,9 ,10 ,12)</p> <p>Exams (6, 8, 9, 10, 11)</p> <p>Boredom and monotony of school (10)</p> <p>The way teachers behave towards young people (4, 10)</p> <p>Doing badly in school (6, 8, 9, 10)</p>	<p>That influence mental health in a positive way:</p> <p>*Achieving in school (9, 10)</p> <p>*End of the school day (9)</p> <p>*Teachers not seen as a good source of self-esteem (6, 10)</p> <p>That relate to talking to others about feelings or problems</p> <p>*Teachers only rarely identified as people who can be talked to about feelings or problems (9, 10)</p> <p>*Avoiding talking to teachers because of fear of lack of confidentiality (11)</p>	<p>TEACHER-STUDENT RELATIONSHIPS/SCHOOL INFRASTRUCTURE/COPING</p> <p>Evidence from systematic reviews:</p> <ul style="list-style-type: none"> meta-analysis by Durlak and Wells (1998) found that interventions to modify psychosocial aspects of the classroom through promoting supportive relationships between students and teachers, and social skill development and cognitive development were moderately effective. <p>Evidence from specific studies cited within systematic reviews:</p> <ul style="list-style-type: none"> teacher training intervention to encourage supportive and reinforcing contacts between teachers and students was effective in reducing aggressive behaviour in boys and self-destructive behaviour in girls (Hawkins <i>et al.</i>, 1991) (6) high school intervention to modify classroom curricula, student ability, teacher-student relationships and promote parental involvement in school activities produced benefits in terms of scholastic achievement, absenteeism, and school drop outs (Weinstein <i>et al.</i> 1991) (6) school wide intervention at teacher, administrator, mental health professional and parental level was effective at reducing serious behaviour problems, and improving student's sense of personal competence (Comer, 1985) (6) <p>SCHOOL TRANSITIONS</p> <p>Evidence from systematic reviews:</p> <ul style="list-style-type: none"> meta analysis by Durlak and Wells (1998) found that interventions to help young people through a period of transition into a new school were of moderate effectiveness <p>Evidence from specific studies cited within systematic reviews:</p> <ul style="list-style-type: none"> counsellor-led 6 week intervention where new and existing students met for information and problem-sharing enabled new students to become comfortable with their new school (Berg-Cross and Flanagan, 1988) (6)

references from young people's views on barriers and facilitators

- (1) Aggleton *et al.*, 1995;
- (2) Armstrong *et al.*, 1998;
- (3) Balding *et al.*, 1998;
- (4) Bowen, 1997;
- (5) Derbyshire, 1997;
- (6) Friedli and Sherzer, 1996;
- (7) HEA, 1995;
- (8) Gallagher *et al.*, 1992;
- (9) Gallagher and Millar, 1996;
- (10) Gordon and Grant, 1997;
- (11) Porter, 2000;
- (12) Tolley *et al.*, 1998.

references from outcome evaluations and reviews

- (1) - in Tilford *et al.*, 1997
- (2) - in Haney and Durlak, 1998
- (3) - in Ploeg *et al.*, 1996, 1999
- (4) - in Hider, 1998
- (5) - in Nicholas and Broadstock, 1999
- (6) - in Durlak and Wells, 1998
- (7) - in Hodgson *et al.*, 1995; 1996

APPENDIX H: Synthesis Matrix (cont'd)

Theme of Material and Physical Circumstances

Barriers	Facilitators	Interventions
<p>Choosing and finding a job (7, 8, 12)</p> <p>Unemployment (1, 8)</p> <p><i>Not having stable home (1)</i></p> <p>Having nothing to do (1, 2, 5, 10, 11)</p> <p>Environmental, social and political issues (2, 6, 12)</p> <p><i>Restrictions on freedom due to police, societal attitudes and structure - eg lack of support for those not living in parental home/who have "dropped out" of society (1)</i></p> <p>Lack of material resources (2, 5, 9-12) so <i>unable to participate in leisure activities but also not get on with tasks of everyday life (1)</i></p>	<p>That could/should be done to promote mental health:</p> <ul style="list-style-type: none"> *more money for services such as Childline (2) *better provision of information and advice (2) *provision of mental health information in specific formats: discreet, positive, to the point, designed by young people for young people, not leaflets (11) *young people's loss should be addressed in a teachers resource pack (5) <p>That influence mental health in a positive way:</p> <ul style="list-style-type: none"> *Money (9) financial security (6) *Increased employment opportunities (6) *Solitary pastimes (9) *Physical activity (9) *Having fun (2) *Pets (2) *Presents (2) 	<p>no interventions identified.</p>

references from young people's views on barriers and facilitators

- (1) Aggleton *et al.*, 1995;
- (2) Armstrong *et al.*, 1998;
- (3) Balding *et al.*, 1998;
- (4) Bowen, 1997;
- (5) Derbyshire, 1997;
- (6) Friedli and Sherzer, 1996;
- (7) HEA, 1995;
- (8) Gallagher *et al.*, 1992;
- (9) Gallagher and Millar, 1996;
- (10) Gordon and Grant, 1997;
- (11) Porter, 2000;
- (12) Tolley *et al.*, 1998.

references from outcome evaluations and reviews

- (1) - in Tilford *et al.*, 1997
- (2) - in Haney and Durlak, 1998
- (3) - in Ploeg *et al.*, 1996, 1999
- (4) - in Hider, 1998
- (5) - in Nicholas and Broadstock, 1999
- (6) - in Durlak and Wells, 1998
- (7) - in Hodgson *et al.*, 1995; 1996

Theme of Relationships

Barriers	Facilitators	Interventions
<p>Friends and peer group</p> <p>Friends and peers (2-5, 9-12), includes: being excluded or not accepted; violation of trust or loyalty; being left out and lonely</p> <p>Violence/bullying by others (5, 10 - 12)</p> <p><i>Anxiety caused by experience of violence from others - receiving threats and getting into fights (1)</i></p> <p>Family</p> <p>Family (1-6, 10) includes: family discord/arguments and conflict between parents or with parents; unpredictable behaviour from parents; parents not understanding; parents not coping (e.g. money, illness, death in family); lack of freedom (not being able to go out, getting questioned if they do, having privacy invaded)</p>	<p>That could/should be done to promote mental health young people's loss *should be addressed in resource pack (5)</p> <p>That influence mental health in a positive way: *Personal achievement to gain recognition from family/friends (2) *Families helping you feel loved and cared for (2, 9) *Parents to help your self-esteem (10) *Friends to give you respect (10) *Having people to talk to (2) *Receiving compliments, congratulations (10) *Having a boyfriend/girlfriend (10) *Male friends to reinforce identity (1) *More intimate friendships for emotional support (1)</p> <p>That young people do to feel better or good about themselves/ That relate to talking to others about feelings or problems: *Talking to friends to counter stress/ when you feel bad (2, 6, 11) *Talking to an adult for less familiar/more serious problems (11) *Seeking advice from a professional for stress and anxiety (6) *Seeing counsellor not as good as sport for relieving frustration (1) *<i>Talking about problems not seen as helpful(1)</i> *Boys less likely to talk to someone as coping strategy (10, 11) *<i>Difficult to get support by talking to people if parent has mental health problem - too hard to explain or thought something that should not be discussed outside family (2)</i> *Friends more likely to be talked to about problems than family(4, 10) *<i>Adults do not understand what really matters to young people (12)</i> *feeling unable to talk about feelings (4, 10) *feeling you have nobody suitable to talk to (4, 9) *fearing lack of confidentiality eg. With services like Childline(2); *fearing worries might be undervalued by adults they talk to (2) *fearing that own worries are not important enough to be talked about - adults have worse problems (2)</p> <p>That could/should be done to promote mental health: *Young people to be listened to (would mostly like friends and family to listen but also health professionals)Young people to be heard and understood *Someone to come along and help young people rather than young people having to seek help *Young people to be comforted, reassured and cheered up (by others) *Young people to be left alone (substantial minority)</p>	<p>FAMILY RELATIONSHIPS</p> <p>Evidence from systematic reviews:</p> <ul style="list-style-type: none"> meta-analysis by Durlak and Wells (1998) found that studies focusing on helping children and young people through a period of parental divorce (mostly brief group based interventions) were of limited effectiveness. meta analysis by Durlak and Wells (1998) found that interventions to train parents in child development were not effective. <p>Evidence from specific studies cited within systematic reviews:</p> <ul style="list-style-type: none"> family bereavement intervention was effective for reducing childrens' depression and conduct disorder (Sandler <i>et al.</i>, 1992) (7) intervention to help children of divorced parents (Children of Divorce Intervention Programme - CODIP) was effective for reducing learning problems, shyness, and social competence (Pedro-Carroll <i>et al.</i>, 1986) (7) <p>Evidence from outcome evaluations:</p> <ul style="list-style-type: none"> classes teaching families to build self-esteem in each other and themselves; authors judged to be effective for knowledge, maternal empathy with and lower dissonance with spouses, and fathers' perception of family adaptability and cohesion but ineffective for self-concept (Bredehoft and Hey, 1985) <p>PEER RELATIONSHIPS</p> <p>Evidence from specific studies cited within systematic reviews:</p> <ul style="list-style-type: none"> social skills training intervention for young people with low peer acceptance and communication problems was effective for short term improvements in conversation skills and responses to peers (Bierman, 1986) (7) academic and social skills intervention in which children recieved tutoring in reading, maths, and social skills was effective at increasing cognitive competence, and reducing peer rejection (Coie and Krehbiel, 1984) (7)

Theme of Self

Barriers	Facilitators	Interventions
<p>Not feeling as if achieving (in sport - boys especially) (9)</p> <p>Not feeling in control (9)</p> <p>Powerlessness (8)</p> <p>Worries about physical appearance - sometimes but not always more of problem for girls (3, 9)</p> <p>Fears for the future (1, 6)</p>	<p>That influence mental health in a positive way: *Achieving in sport(9) Winning at football (9) *Self-esteem (2) *<i>The ability to cope with the ups and downs of life (2)</i></p> <p>That young people do to feel better or good about themselves: *Listening to music to address and prevent stress and anxiety (6, 11) *<i>Creating (eg music) to express feelings (1)</i> *Eating chocolate, taking long baths as ways of coping with stress (11) *Consulting books and magazines to address and prevent stress and anxiety (6) *Keeping busy if feel bad (6) *Rest/sleep if feel bad (6, 11) *<i>Sport, dance and raves for feeling angry, frustrated or hopeless (1)</i> *Using physical aggression to deal with anger (1,2,9) *<i>Getting angry to deal with being depressed and to avoid hurting yourself (1)</i> *Crying to release feelings (9) *<i>Cutting yourself or stealing cars when you feel angry to give yourself a "buzz" (2)</i> *<i>Taking drugs to counter anxiety and stress (1, 6)</i></p>	<p>SELF ESTEEM AND COPING Evidence from systematic reviews:</p> <ul style="list-style-type: none"> • review of range of interventions to promote self esteem (Haney and Durlak, 1998) found that, overall, they have a modest effect, but those with a major focus on self-esteem are more effective than interventions with a broader focus <p>Evidence from specific studies cited within systematic reviews:</p> <ul style="list-style-type: none"> • aerobic exercise and psychological well-being intervention during pregnancy was effective for self esteem and depression (Koniak-Griffin, 1994) (1) • psycho-educational intervention ('Personal Empowerment Programme') was effective for improving self esteem (Fertman and Chubb, 1992) (1) • cognitive stress reduction intervention was effective for self esteem, anger and anxiety (Hains and Szyjakowski, 1990) (1) • group sessions using peer counseling and job internship in 14 to 17 year olds with on-going physical health condition improved self-esteem and mental health status but not competence (Bauman <i>et al.</i>, 1997) (5) • school-based social support group intervention improved social support and adjustment to university life in students aged 17 to 20 (Lamothe <i>et al.</i>, 1995) <p>Evidence from outcome evaluations:</p> <ul style="list-style-type: none"> • class series teaching to recognise self defeating thoughts, replace them with self-improving and self-reinforcing thoughts, and counseling; authors judged to be effective for self-referrals for further counseling and for knowledge (Haldeman and Baker, 1992) • classes teaching families to build self-esteem in each other and themselves; authors judged to be effective for knowledge, maternal empathy with and lower dissonance with spouses, and fathers' perception of family adaptability and cohesion but ineffective for self-concept (Bredehoft and Hey, 1985)

references from young people's views on barriers and facilitators

- (1) Aggleton *et al.*, 1995;
- (2) Armstrong *et al.*, 1998;
- (3) Balding *et al.*, 1998;
- (4) Bowen, 1997;
- (5) Derbyshire, 1997;
- (6) Friedli and Sherzer, 1996;
- (7) HEA, 1995;
- (8) Gallagher *et al.*, 1992;
- (9) Gallagher and Millar, 1996;
- (10) Gordon and Grant, 1997;
- (11) Porter, 2000;
- (12) Tolley *et al.*, 1998.

references from outcome evaluations and reviews

- (1) - in Tilford *et al.*, 1997
- (2) - in Haney and Durlak, 1998
- (3) - in Ploeg *et al.*, 1996, 1999
- (4) - in Hider, 1998
- (5) - in Nicholas and Broadstock, 1999
- (6) - in Durlak and Wells, 1998
- (7) - in Hodgson *et al.*, 1995; 1996

Theme of Self (cont'd)

Barriers	Facilitators	Interventions
no views identified specific to depression.	no views identified specific to depression.	<p>DEPRESSION Evidence from specific studies cited within systematic reviews:</p> <ul style="list-style-type: none"> • class series teaching causes, symptoms treatment of depression, sources of help; authors judged ineffective for attitudes, self-referral or symptoms possibly due to low intensity and duration of intervention (Clarke <i>et al.</i>, 1993) • class series teaching symptoms, causes and treatments of depression, behaviour training to increase pleasurable activities and link between activities and mood level; authors judged ineffective for attitudes, self-referral or symptoms possibly due to low intensity and duration of intervention (Clarke <i>et al.</i>, 1993) • school based intervention did not reduce suicide attempts but was effective in improving depression (Clarke <i>et al.</i>, 1992) (4) • school based cognitive behaviour therapy intervention showed significant improvements in children at risk of depression (Gilham <i>et al.</i>, 1995; Jaycox <i>et al.</i>, 1994) (4) • school based cognitive behaviour therapy intervention determined to be significantly more effective than usual care (Clarke <i>et al.</i>, 1995) (4) • school based cognitive behaviour therapy and relaxation therapy significantly improved depression (Kahn <i>et al.</i>, 1990) (4) • community-wide public health activities to reduce depression, suicidal thoughts, bullying, satisfaction with school and life and drug and alcohol use showed higher overall scores in community which received these activities, in comparison to communities which did not (Berg-Kelly <i>et al.</i>, 1997) (5)

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- (1) Aggleton *et al.*, 1995;
- (2) Armstrong *et al.*, 1998;
- (3) Balding *et al.*, 1998;
- (4) Bowen, 1997;
- (5) Derbyshire, 1997;
- (6) Friedli and Sherzer, 1996;
- (7) HEA, 1995;
- (8) Gallagher *et al.*, 1992;
- (9) Gallagher and Millar, 1996;
- (10) Gordon and Grant, 1997;
- (11) Porter, 2000;
- (12) Tolley *et al.*, 1998.

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- (4) - in Hider, 1998
- (5) - in Nicholas and Broadstock, 1999
- (6) - in Durlak and Wells, 1998
- (7) - in Hodgson *et al.*, 1995; 1996

Theme of Self (cont'd)

Barriers	Facilitators	Interventions
no views identified specific to suicide.	no views identified specific to suicide.	<p>SUICIDE Evidence from specific studies cited within systematic reviews and outcome evaluations:</p> <ul style="list-style-type: none"> • school-based interventions to recognise and intervene with a suicidal peer have shown positive effects (Silbert and Berry, 1991; Kalafat and Elias, 1994 (3); Kalafat and Gagliano, 1996 (3); Ciffone, 1993 (3)) • school-based interventions to improve knowledge and attitudes have been shown to be effective (Silbert and Berry, 1991; Klingman and Hochdorf, 1993 (3); Kalafat and Elias, 1994 (3); Overholser <i>et al.</i>, 1989 (3); Shaffer <i>et al.</i>, 1990, 1991, Vieland <i>et al.</i>, 1991 (3,4); Spirito <i>et al.</i>, 1988 (3)), but have also shown mixed effects (Overholser <i>et al.</i>, 1989 (3); Spirito <i>et al.</i>, 1988 (3)) • school-based interventions to effect stress, depression, anger, suicidal thoughts have been shown to be effective (Silbert and Berry, 1991; Eggert <i>et al.</i>, 1995 (3); Overholser <i>et al.</i>, 1989 (3); Shaffer <i>et al.</i>, 1990, 1991, Vieland <i>et al.</i>, 1991 (3,4); Zenere and Lazarus, 1997 (4); Pedro-Carroll and Cowen, 1985 (4); Pless <i>et al.</i>, 1994 (4); Clarke <i>et al.</i>, 1995 (4,5); Lamb <i>et al.</i>, 1998 (5)) but may have negative effects in subgroups (Overholser <i>et al.</i>, 1989 (3)) • school-based interventions generally improve coping skills (Klingman and Hochdorf, 1993 (3); Orbach and Bar-Joseph, 1993 (3,4); Overholser <i>et al.</i>, 1989 (3); Shaffer <i>et al.</i>, 1990, 1991, Vieland <i>et al.</i>, 1991 (3,4); Pedro-Carroll and Cowen, 1985 (4); Lamb <i>et al.</i>, 1998 (5)) but may have possible harmful or mixed effects in subgroups (Overholser <i>et al.</i>, 1989 (3))

references from young people's views on barriers and facilitators

- (1) Aggleton *et al.*, 1995;
- (2) Armstrong *et al.*, 1998;
- (3) Balding *et al.*, 1998;
- (4) Bowen, 1997;
- (5) Derbyshire, 1997;
- (6) Friedli and Sherzer, 1996;
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- (7) - in Hodgson *et al.*, 1995; 1996