Improving Mental Health Literacy: A Review of the Literature

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Executive Summary

Introduction
The National Mental Health Strategy has a strong emphasis on mental health promotion and mental illness prevention. The Second National Mental Health Plan aims to build on the work of the first five years of the Strategy by focusing on the mental health literacy of key groups in key settings (Australian Health Ministers 1998; 1999).

The term ‘mental health literacy’ was coined by Jorm et al (1997) as an extension of the concept of ‘health literacy’. It may be defined as ‘knowledge and beliefs about mental disorders which aid their recognition, management or prevention’. It includes: the ability to recognise specific disorders; knowing how to seek mental health information; knowledge of risk factors and causes, of self-treatments and of professional help available; and attitudes that promote recognition and appropriate help-seeking.

Activities designed to improve mental health literacy are a significant component of mental health promotion. Strategies for improving mental health literacy generally comprise education and communication approaches. These activities may be classified in a number of different ways, and can be considered in terms of scope, mode of delivery, scale, and setting.

Recent studies of mental health literacy in Australia have shown that the public are not very well informed about mental illness. It is important that the level of mental health literacy in the population be improved in order for individuals to recognise mental illness and manage their own mental health more effectively. Improving overall mental health literacy is also important in terms of overcoming stigma associated with mental illness.

Purpose of the review
The aim of this literature review is to evaluate and interpret current research relating to improving mental health literacy, in order to identify the most effective communication strategies and tools to improve mental health literacy among target audiences in the Australian population. The review involves a systematic examination of the available research. In addition, this report provides an overview of the literature relating to public health information campaigns.

Research question
What are the most effective communication strategies and tools to improve mental health literacy among target audiences in the Australian population?

Method
Literature relating to mental health literacy programs was identified through a number of database searches using relevant search terms. Appropriate databases were searched for English language articles dated from 1980 to May 2002. The databases searched included: Medline, PsychINFO, Current Contents, Communication Abstracts, Cochrane Database of Systematic Reviews, EMB Reviews, York Database
of Abstracts of Reviews of Effectiveness, and ProQuest. In addition to database searches, efforts were made to uncover unpublished work of relevance to the literature review.

The relevant literature involving programs to improve mental health literacy was identified and classified according to the following general categories:

- Whole of community programs
- Programs targeted to specific populations

Information relevant to the effectiveness of individual programs was extracted from each of the studies. The methodological issues and limitations of each study were also examined, in order to determine the validity and importance of any findings. The data extracted from the studies were drawn together in order to provide a descriptive review of the effectiveness of different programs to improve mental health literacy.

**Review of individual studies**

A range of programs identified for inclusion in this review addressed the issue of improving mental health literacy at a whole of community level. Most of these programs involved mass media campaigns, however a small number of studies used other modes of delivery, such as education courses. In addition to whole of community programs, a number of studies were identified which provided evaluations of programs directed towards specific subgroups of the population.

**Whole of community programs**

Previous reviews of mental health literacy campaigns in the mass media have indicated that there is potential for such programs to have an impact on community attitudes, knowledge and behavioural intentions. Despite important methodological limitations, the literature included in this review also indicates that mass media campaigns can have a positive impact on levels of mental health literacy in the population. Evaluations of programs conducted at national and statewide levels generally indicated that attitudes and knowledge improved; however the extent of changes was acknowledged to be limited. While it may be concluded that mass media campaigns are a potentially effective approach to improving mental health literacy, it should be acknowledged that such strategies are generally expensive, and none of the studies adequately addressed the issue of cost-effectiveness.

Studies of modes of delivery other than mass media were not common, and were less conclusive about changes in knowledge, attitudes and behaviour. There were, however, indications that social contact with people experiencing mental illness may be associated with improved community attitudes.

A number of recommendations may be made about the content and mode of delivery of campaigns targeted to the whole of the community. Importantly, evaluations of other health communication campaigns conducted in Australia and overseas have found that messages are particularly well received when the positive outcomes of attitudes or behaviours are communicated. With respect to mode of delivery, the literature indicates that mass media campaigns may be most effective when complemented by other more direct approaches, such as the dissemination of printed materials or community activities.
Programs targeted to specific populations
The literature suggests that programs targeted to specific groups within the population can improve levels of mental health literacy. It is important to note, however, that there were significant methodological limitations associated with many of the studies reviewed in this section, and the generalisability of the findings is limited. The strongest evidence relates to the impact of educational interventions for families of people with schizophrenia, and the literature indicates that programs targeted to carers and families of people with mental illness may also result in improved outcomes for mental health consumers. Evaluations of school-based programs targeted to adolescents also indicated positive effects in terms of awareness and attitudes relating to mental health issues.

Given the nature of the literature, it is clear that there is a need for further evaluations of programs targeted to subgroups of the population, particularly in the Australian context. It is recognised that there are various groups within the community who may benefit from targeted mental health literacy programs, however there is little literature addressing the issue of effectiveness of such programs at present.

Health communication campaigns
In contrast to the relatively limited amount of literature addressing mental health literacy programs, there is a vast literature relating to public health information campaigns. There is evidence that communication campaigns can be effective under certain conditions for particular audiences, although evaluations of previous communication campaigns suggest many failures and unrealistic expectations about possible outcomes. The role of mass media campaigns in particular is likely to be in creating awareness and knowledge of a campaign message rather than achieving behavioural changes. It is acknowledged that mass media messages alone usually achieve little, and therefore other supportive interventions are necessary.

In order for a communication campaign to be successful, a number of components are considered essential. Message development is an integral component of the campaign, and there should be widespread exposure to campaign messages. Campaign appeals that are socially distant from audiences are generally ineffective, and messages promoting prevention are less likely to be successful than those with immediate positive consequences. Research should focus not only on summative evaluation, which measures campaign outcomes, but also formative evaluation, which focuses on campaign planning, and process evaluation, to monitor campaign implementation.

Contemporary communication campaigns are likely to recognise the capacity of audiences to make meaning out of campaign messages, to misinterpret messages, or even to resist messages. This model moves away from reliance on the knowledge–attitude–behaviour paradigm that underpins most of the earlier communication campaigns and the traditional ‘media effects’ theory. The newer approach to communication campaigns acknowledges the importance of investigating the factors that various audiences bring to their understanding and reception of communication campaign messages.
Conclusions

There is evidence that mass media campaigns designed to reach the general public can achieve positive outcomes in terms of mental health literacy. Research also indicates that campaigns are particularly effective when they involve more than one form of media, and include community-based components and/or direct interventions. It is, however, important to note that the impact of such campaigns is limited. Mental health literacy programs that target the general public but do not involve mass media approaches appear to be less common, but show some evidence of effectiveness in terms of attitude change. Importantly, studies of such programs have found that direct contact with individuals with mental illness is associated with the development of more positive attitudes.

With respect to programs targeting specific audiences, there is evidence that school-based programs can improve mental health literacy among adolescents. It should be noted that important methodological issues emerged in a number of studies focusing on school-based mental health literacy programs, particularly those conducted in Australia, which prevent firm conclusions being drawn. Some of the strongest evidence of effectiveness of mental health literacy programs comes from studies of educational interventions for carers and family members of people with mental illness. In particular, programs for family members of individuals with schizophrenia have been evaluated in a number of studies and found positive results in terms of improvements in knowledge and attitudes.

When considering the evidence of effectiveness of health communication programs, it is clearly important to bear in mind the theoretical basis for communication strategies. It is apparent from the literature, however, that the majority of studies of mental health literacy programs do not adequately address theoretical issues. Research into mental health literacy campaigns should take into account how various audiences acquire health knowledge and what factors motivate audiences to attend to public health messages.

Most of the programs studied were conducted in countries other than Australia. It is therefore difficult to determine to what extent successful programs may achieve the same effects in the Australian context. In addition, significant methodological issues emerged in a number of these studies, particularly those investigating school-based programs, and the strongest evidence tends to come from evaluations of overseas studies. There is a clear need for evaluation of mental health literacy programs in Australia, both in terms of campaigns targeted to the general population, and those aimed at particular sub-groups.

The issue of cost-effectiveness has not been addressed adequately in previous studies of mental health literacy campaigns. This is clearly a key area for further research, particularly as many programs tend to involve high cost strategies such as mass media campaigns. In addition, much of the previous research has focused only on evaluation of outcomes, and has tended to neglect evaluation of the development and implementation phases of communication and information programs. It is important that future research involves appropriate resources and methods to achieve useful evaluation of strategies to improve mental health literacy.
1. Introduction

The National Mental Health Strategy has a strong emphasis on mental health promotion and mental illness prevention. During the first five years of the Strategy, promotion and prevention efforts focused on raising community awareness of the prevalence of mental illness (Australian Health Ministers 1992a; 1992b). The Second National Mental Health Plan aims to build on this work by focusing on the mental health literacy of key groups in key settings (Australian Health Ministers 1998; 1999).

Mental health literacy

The term ‘mental health literacy’ originated as an extension of the concept of ‘health literacy’ (Jorm et al 1997). Nutbeam (2000) notes that ‘health literacy’ has been referred to in the health literature for at least 30 years. Health literacy is recognised as an important aspect of health promotion, and may be defined as ‘the personal, cognitive and social skills which determine the ability of individuals to gain access to, understand, and use information to promote and maintain good health’ (Nutbeam, 2000).

In contrast, a focus on mental health literacy has been neglected. The term ‘mental health literacy’ was coined by Jorm et al (1997), who used it to describe ‘knowledge and beliefs about mental disorders, which aid their recognition, management or prevention’. It includes:

- the ability to recognise specific disorders;
- knowing how to seek mental health information;
- knowledge of risk factors and causes, of self-treatments and of professional help available; and
- attitudes that promote recognition and appropriate help seeking.

Activities designed to improve mental health literacy are a significant component of mental health promotion. Strategies for improving mental health literacy generally comprise education and communication approaches. These activities may be classified in a number of different ways, and can be considered in terms of:

- scope – universal preventive measures (i.e. targeting the whole population or population groups), or selective preventive measures (i.e. aimed at particular subgroups of the population);
- mode of delivery – e.g. mass media, brochures, oral presentations by experts and/or community leaders etc., and whether these modes are used in isolation or in combination;
- scale – small (e.g. local) or large (e.g. national); and
- setting – e.g. whole communities, hospitals, schools etc.

Recent studies of mental health literacy in Australia have shown that the public are not very well informed about mental illness. A survey conducted in 2001 showed that 90% of respondents believed mental health was a significant issue in Australia, but overall did not have a clear understanding of mental illness (Wirthlin Worldwide Australasia Pty Ltd, 2001). In an earlier study, Jorm et al (1997) found that members of the public tended to view pharmacological treatments for depression and
schizophrenia as harmful, and to have a relatively negative view of mental health specialists compared with other health professionals. Jorm et al stated that the level of mental health literacy in the population should be improved in order for individuals to recognise mental illness and manage their own mental health more effectively.

Improving mental health literacy in the general population is also important in terms of overcoming stigma associated with mental illness. Stigma can lead to prejudice, discrimination and negative outcomes for people with mental illness (Corrigan and Penn 1999; Commonwealth Department of Health and Aged Care, 2000b). In a review of the literature on the stigma of mental illness, Hayward and Bright (1997) defined stigma as ‘the negative effects of a label placed on any group . . . in this case, those who have been diagnosed as “mentally ill”’. Corrigan and Penn (1999) stated that the impact of stigma on a person’s life might be as harmful as the effects of the mental illness.

The attitudes of the public towards mental health issues are recognised as an important factor in the perpetuation of the stigma experienced by people with mental illness (Commonwealth Department of Health and Aged Care, 2000a; Kommana et al, 1997). Research has indicated that those with a better understanding of mental illness are less likely to hold stigmatising attitudes (Link and Cullen 1986; Brockington et al 1993; Wolff et al 1996; 1996b; Corrigan and Penn 1999). Kommana et al (1997) discussed the role of social psychology theory and attitude change in overcoming stigma, stating that changing public attitudes was a crucial step in eliminating stigma. They argued that stereotypes and misconceptions can be dispelled by promoting direct contact between the general public and people with mental illnesses, however, they also stated that overcoming stigma may be achieved more efficiently by disseminating realistic information through public education campaigns.

**Purpose of the review**

The aim of this literature review is to evaluate and interpret current research relating to improving mental health literacy, in order to identify the most effective communication strategies and tools to improve mental health literacy among target audiences in the Australian population. The literature review involves a systematic examination of the available research. It is systematic in that it: a) makes a concerted effort to identify all relevant research; b) makes judgements about the overall quality of the literature; c) systematically draws together the findings of the studies that are judged to be of acceptable quality for inclusion in the review; and d) makes judgements about the efficacy of particular interventions.

In addition, this report considers research relating to public health communication strategies, in order to provide an overview of effective health communication approaches that may be applicable to programs designed to improve mental health literacy. While an in-depth review of all the literature in this area is beyond the scope of the current review, an analysis of health communication strategies is outlined in Section 4 of this report, and a summary of key systematic reviews of health communication campaigns is provided in Appendix 1.

**Research question**

*What are the most effective communication strategies and tools to improve mental health literacy among target audiences in the Australian population?*
Supplementary questions:

a) To what extent have such strategies improved levels of knowledge and awareness, achieved attitudinal change and/or behavioural change and/or achieved positive changes to broader community attitudes which may have had a flow-on effect to mental health consumers?

b) What are the determinants of successful public health information strategies, for example, strategy development, ‘selling the message’, communication tools (eg print, radio, television and/or film), post-strategy follow-up and cost effectiveness?

c) Which determinants of successful strategies and campaigns apply to all populations and which to particular target audiences?

d) Which successful public health information strategy models are transferable in terms of content and/or process across topic areas and/or demographic groups in Australia?

e) In which areas may further research be commissioned on public health information approaches to mental health literacy?

Method

Literature retrieval

Relevant literature relating to mental health literacy programs was identified through a number of database searches. The literature review aimed to identify recent research; therefore appropriate databases were searched for English language articles dated from 1980 to May 2002. The databases searched included: Medline, PsychINFO, Current Contents, Communication Abstracts, Cochrane Database of Systematic Reviews, EMB Reviews, York Database of Abstracts of Reviews of Effectiveness, and ProQuest. The following truncated search terms were employed:

- mental*, psychiatr*
- health, illness*, disorder*, wellbeing
- promot*, prevent*, literacy, educat*, communication campaign, information

The reference lists of relevant articles retrieved through database searches were also scanned in order to identify other important studies for inclusion in the literature review.

In addition to database searches, efforts were made to uncover unpublished work of relevance to the literature review. In particular, contact was made with a number of researchers in the field both in Australia and overseas. This contact resulted in the inclusion of several unpublished studies in the literature review.

Inclusion criteria

Studies included in the literature review were those which evaluated programs designed to improve general mental health literacy in the population. A large number of studies were identified through the literature retrieval process described above, however not all studies were of relevance to the literature review. Many studies were excluded from the review as they did not focus on mental health literacy programs,
and the content was therefore not applicable. It should be noted, however, that the
term ‘mental health literacy’ is not widely used in the literature. Programs designed to
improve mental health literacy are more commonly described as mental health
education or information programs.

The more general terms mental health promotion and mental illness prevention may
also refer to programs that are designed specifically to improve mental health literacy.
However, not all mental health promotion and prevention programs fall into this
category. For example, a number of mental health promotion programs focus on skills
development or early intervention methods, which are outside the scope of this
review. Only those programs that addressed the issue of mental health literacy were
selected for inclusion.

It should be noted that previous literature reviews have considered the issue of mental
health literacy in the context of the broader concepts of mental health promotion and
mental illness prevention. An overview of this literature is given in Appendix 1 of this
report. In addition, key systematic reviews of other forms of health communication
campaigns are outlined in Appendix 1.

**Exclusion criteria**
Sections of the literature that did not specifically involve an evaluation of a program
to improve mental health literacy were excluded from the review. Programs that were
specifically designed to provide training for mental health professionals were also
excluded, as these programs were not targeted to the general Australian population. A
number of studies were identified which described the development of particular
programs, but did not include an evaluation, and these studies were also excluded
from the review. In addition, certain studies that provided an evaluation were not of
sufficient strength or methodological rigour to include in the review.

**Classification of literature**
The relevant literature involving programs to improve mental health literacy was
identified and classified according to the following general categories:

- Whole of community programs
- Programs targeted to specific populations

Within these categories, studies differed in their mode of delivery, scale and setting.
All studies involved an evaluation of an intervention, however there was variability in
terms of their study design. Only two of the studies identified for inclusion in the
review used an experimental, randomised controlled trial design. A large proportion
of the studies were quasi-experimental in design, that is, they used intervention and
control groups but did not use randomisation of participants. Most studies also
involved a pre-test/post-test design, with surveys of study participants prior to and
following the program. (See Section 5 for discussion of methodological issues)

**Data extraction**
Information relevant to the effectiveness of individual programs was extracted from
each of the studies. This included the author and year of the study, the mode of
delivery, setting and content of the program, the study design, the overall method, the
key findings, and conclusions of the study. The methodological issues and limitations
of each study were also examined, in order to determine the validity and importance of any findings. A detailed review of each of the studies is provided in Sections 2 and 3 of this report, along with tables of key findings.

**Data synthesis**

The data extracted from the studies were drawn together in order to provide a descriptive review of the effectiveness of different programs to improve mental health literacy. The data did not lend itself to a formal meta-analysis, as the studies included in the review were conducted in different settings and used a variety of research designs. In addition, the quality of studies varied widely, and therefore the findings of better quality studies were separated from those of poorer quality evaluations. As a result, the synthesis of data involved identification of trends in order to determine which interventions were most effective in achieving positive outcomes.
2. Review of individual studies - Whole of community programs

A variety of programs have addressed the issue of improving mental health literacy at a whole of community level. A total of eight programs were identified which had been formally evaluated and fulfilled the inclusion criteria for the review. Most of these programs involved mass media campaigns, however a small number of studies used other modes of delivery, such as education courses. Only one of the studies was conducted in Australia, with the remaining studies conducted in the United Kingdom, the United States, Canada and Norway. While there was a large variability in the types of interventions studied, the overall findings were that positive changes in levels of mental health literacy and awareness were obtained. The key findings from each of the studies are presented in Table 1.

Mass media campaigns

A number of studies have looked at the impact of mass media programs to improve mental health literacy. Mass media programs are a common method of conveying health information to the general public, as it is perceived that a wide audience may be reached. Such approaches may, for example, involve campaigns in broadcast and print media, or may provide health information through entertainment or news programs on broadcast media. Studies of mental health literacy campaigns in the mass media indicate that there is potential for such programs to have an impact on community attitudes, knowledge and behavioural intentions.

A series of studies from the UK investigated the impact of a five-year campaign designed to raise awareness of mental illness (Priest et al 1996; Paykel et al. 1997; 1998). The studies looked at the Defeat Depression campaign, organised by the Royal College of Psychiatrists and the Royal College of General Practitioners. The aim of the campaign was to reduce the stigma associated with depression, educate the community about the condition, and encourage early help-seeking behaviour. The campaign was run between 1991 and 1996 and involved wide-ranging media activities, including newspaper and magazine articles, and radio and television programs.

Media activities for the campaign began with a press conference in 1992, which resulted in widespread newspaper, radio and television reports about depression. Other media events included reports of personal experience of depression by several high profile individuals. Publications including leaflets and books were produced and disseminated widely. Audiocassettes and videotapes promoting coping techniques for people with depression were also produced. A special Defeat Depression Action Week was held in 1994, involving media briefings and community activities, and further Action Days were held in 1995 and 1996. In addition, a number of fact sheets were prepared in different languages to reach people from non-English speaking backgrounds (see Section 3 for a review of this aspect of the campaign).

In order to measure the impact of the campaign, the study involved three surveys conducted in 1991, 1995 and 1997. The samples were selected using a quota sampling method, which involved the selection of weighted samples on the basis of their known
representation in the population. This resulted in sample sizes of around 2000 in each of the survey years. The surveys involved face-to-face interviews, with the same 25 questions asked in each of the three surveys. The questions related to the respondents’ perceptions of depression, opinions about the treatment of depression, and views about general practitioners.

The survey results showed that the attitudes of respondents to depression were very positive on all three occasions, with little variation over time. Throughout the study, approximately 10% of participants agreed with the negative statement that ‘depressed people are often mad or unstable’, while around 97% felt that ‘anybody can suffer from depression.’ There was a slight increase in the proportion of respondents who reported experiencing depression themselves in 1997 (25%) compared with the first survey in 1991 (22%). Respondents tended to view the causes of depression as largely psychosocial rather than physical, with almost all causes of depression endorsed more strongly in the later survey years when compared with the first survey. In terms of treatment, counselling was much more frequently endorsed than antidepressant medication, however the proportion of respondents agreeing that antidepressants were effective increased from 46% in 1991 to 60% in 1997. When asked about general practitioners, the majority of respondents agreed that they would approach their GP or other health professional if they suffered from depression. The proportion of respondents who stated they would seek help from their GP rose from 60% in 1991 to 68% in 1997.

The authors concluded that there were significant positive changes in attitudes over the course of the campaign. General attitudes to depression were very positive from the beginning of the campaign, and did not alter significantly. Although antidepressants were not viewed as positively as counselling in terms of treatment options, attitudes to antidepressant medication improved during the campaign. It is important to note that the authors acknowledged that they could not be certain that the campaign had caused the attitudinal changes described in the study. While they stated that there was a significant increase in media coverage of mental health issues during the campaign, it was noted that very few of the respondents reported that they had heard directly of the campaign (5% in 1995 and 2% in 1997).

A comparable campaign undertaken recently in Australia as part of the Community Awareness Program (CAP) was reviewed in 1999 (Evans Research 1999). The program aimed to increase awareness of mental health issues and reduce stigma and discrimination associated with mental illness. The program was launched in 1995 and, along with a number of media activities including television commercials, involved the production and dissemination of mental health information brochures. The series of brochures covered the following topics: mental illness, stigma, the National Mental Health Strategy, depression, anxiety, eating disorders, schizophrenia, and bipolar disorder. The review undertaken in 1999 looked specifically at the mental health information brochures, and aimed to make recommendations regarding the further development of campaign materials.

The review involved consultation with key stakeholders and experts to evaluate the effectiveness of the mental health information brochures. This consultation comprised written evaluation questionnaires, written and telephone surveys, and meetings with stakeholder groups. The questionnaires were given to 660 general practitioners in
metropolitan Melbourne, as well as 960 medical practitioners and psychologists nationwide, and representatives of mental health organisations. Telephone interviews were conducted with representatives from mental health organisations, consumer groups, and other key stakeholders.

A total of 163 general practitioners completed the questionnaires, to give a response rate of 25%. Approximately half of the respondents (52%) reported seeing each of the brochures. For those who reported having seen the material, all brochures were rated as highly useful on a 10-point utility scale. In addition, the brochure providing information about schizophrenia was selected by the greatest proportion of respondents as the most useful. The best features of the brochures were found to be their readability and educational role, and the most commonly suggested improvements were increased availability and provision of service availability on the brochures. Amongst medical practitioners and psychologists, a response rate of 26% to the questionnaire was obtained. A slightly greater proportion (57%) of respondents reported familiarity with the brochures, compared with the sample of general practitioners. All brochures were rated as highly useful, although the utility scores were lower overall than those reported by the general practitioner group. Once again, the brochure on schizophrenia was most commonly cited as the most useful, and the best features of the brochures overall were their educational role and readability.

A total of 18 representatives from mental health organisations responded to the survey, however the response rate was not provided. All reported seeing the information brochures, and, as with the other two sample groups, all brochures were rated highly on the utility scale. Again the most useful brochure was that providing information about schizophrenia. The best features of the brochures were reported to be the readability and presentation, and suggested improvements were expanded availability, inclusion of service availability, and production of brochures in other languages. Participants from stakeholder groups who were contacted by telephone indicated a high level of familiarity with the brochures, with 76% reporting that they had seen the brochures. Respondents once again reported that readability was the best feature of the brochures. In addition, around 40% of respondents endorsed the role of the CAP information brochures, and 27% felt there was a need to improve distribution.

Following consultation with key stakeholder groups, a number of recommendations were made about changes to the titles of various brochures, as well as content revisions, design improvements, and the production of a main brochure in a range of different languages. It was felt to be important to include contact details for relevant mental health services, and to outline re-ordering information. Recommendations for new materials included an expanded set of titles, and the use of an integrated brochure, CD-ROM and web site. Suggestions were also made regarding the use of specific media for particular target groups. For example, recommended strategies for targeting young people were: television commercials and popular television programs, advertisements in youth magazines, information in school libraries and youth-oriented corporate sponsorship.

The review concluded that the CAP mental health information brochures had been well received and had provided a useful education resource. It was recommended that the focus of the information brochures on mental health education and promotion should remain. However, they also stated that the distribution of brochures had been
inadequate, as only around half of the medical practitioners and psychologists surveyed reported seeing the brochures. Recommendations were made for improving the distribution approach, through collaboration with State and Territory health departments, professional associations, peak mental health organisations, hospitals and libraries. The authors also stated that there was a need for ongoing evaluation of the dissemination of the materials, and surveys of community knowledge and attitudes about mental health issues in Australia. It is important to note that the evaluation of the brochures in 1999 did not include surveys of community attitudes, or attempt to measure the impact of the mental health information brochures on community attitudes.

Unlike the broad-ranging media campaigns already described, an earlier study from the UK by Barker et al (1993) investigated the impact of television series designed to provide information about mental illness to the general public. The series, entitled *You in Mind*, consisted of seven ten-minute programs presenting information about mental health problems and providing examples of coping methods. The aim of the series was to provide insight, problem clarification and problem solving techniques in terms of the viewers’ own problems, and their perceptions of the problems of others. The programs were designed to be positive in tone, and generally depicted ordinary people describing methods of coping with common emotional and psychological problems. The program titles were: The Tranquiliser Trap, Being Assertive, Overcoming Insomnia, Overcoming Fear, Overcoming Depression, Expressing Feelings, and Change. The series was televised in the UK on Sunday evenings from February to April in 1987 and received an audience of approximately 13% of the adult population. A written booklet was also available, and provided information about the topics covered in the series, as well as details of national and local mental health services.

The aim of the study was to measure the impact of the series on community attitudes and behaviour. Baseline data were collected from a representative national sample of 1040 adults prior to the beginning of the series. Participants were then sent a follow-up questionnaire one year later, after the series was completed, which received a 52% response rate. Of these, only 62 participants had viewed the series. Respondents were asked questions about coping and help-seeking measures, as well as general responses to the series.

The results of the study were that those who had viewed the series found that it was useful in terms of insight, problem clarification and problem solving. However, it was found that the series had a greater impact in the areas of awareness and clarification than in actually finding out how to respond to problems. Over 75% of viewers felt that the series portrayed people similar to people they knew, but half of the viewers thought that the series was not actually relevant to their own concerns. In terms of behaviour change, 45% of viewers stated that they had either tried or intended to try new methods of coping with their own problems. However, the authors also noted that the figures relating to reported behaviour change should be treated with some caution, as a validity check on one of the measures of behaviour change had revealed a significant amount of over-reporting.

The authors concluded that there was some evidence that the series had a positive impact on viewers. However, it was apparent that the series had a greater impact on viewers’ perceptions of other people’s problems than of their own. It was argued that
this was most likely because there was a higher probability of respondents knowing of other people with a mental illness than of having a mental illness themselves, and also that a proportion of the participants may have chosen to deny their own mental health problems. Although the authors acknowledged a large degree of over-reporting of behaviour change, a significant number of viewers stated that they had changed or intended to change their behaviour as a result of the series. The authors argued that, while any significant impacts of the series were limited to a minority of the respondents, this proportion, when translated into the actual total national audience, would be a large absolute number.

A mass media campaign conducted in Norway in 1992 used a slightly different approach, and indicated particularly positive results (Fonnebo and Søgaard 1995; Søgaard and Fonnebo 1995). The objectives of the Norwegian Mental Health Campaign were to raise money for psychiatric research, and to educate the community about the treatment and prevention of mental health disorders. The campaign centred around a fund-raising television program, which was broadcast in 1992 on a nationwide television station. The six-hour television program included information about mental health issues, as well as entertainment and fund-raising activities. Prior to the broadcast of the program, there was extensive coverage of the campaign through newspaper and television advertisements, and through a series of educational television and radio programs about mental illness. In addition, a campaign newspaper was sent to every household, and information about the campaign was distributed to a number of organizations including community health centres, schools, libraries and psychiatric institutions. The campaign was formally endorsed by the government, and received support from the King and Queen of Norway, as well as a number of church organisations. Community activities including an essay competition and a celebrity gala event were also organised to coincide with the campaign.

The evaluation of the program involved telephone interviews with a random sample of the population. Prior to the campaign, 1191 individuals were interviewed regarding knowledge of and attitudes to mental health disorders. One month after the campaign, 644 (54%) of the original participants were interviewed again. Of these, 574 respondents had heard of the campaign, which represented 94% of the follow-up sample. Approximately two-thirds of all respondents had watched pre-campaign television programs, and 62% indicated that they had viewed the television program on the day of the campaign. A total of 68% of respondents had read information connected with the campaign about mental health issues, and almost half reported discussing the theme of the campaign with others. The follow-up survey was also administered to a separate sample of 1177 individuals, to control for any effects of repeated interviewing in the original sample.

The 574 respondents in the follow-up sample who reported that they had heard of the campaign were included in the evaluation of the impact of the program in terms of changes in knowledge and attitudes. It was found that there were significant increases in knowledge about suicide frequency following the campaign. For example, the proportion of male respondents who correctly indicated that suicide deaths are more common than traffic accident deaths roles from 28% prior to the campaign to 43% at follow-up. The corresponding proportions for female respondents rose from 21% at baseline to 46% after the campaign. Knowledge about aspects of mental illness other
than suicide frequency did not change significantly following the campaign. It was found that, throughout the campaign, there were significant increases in the proportion of respondents who were willing to be open about family members who were hospitalised for a psychiatric disorder, as well as improved attitudes to help-seeking.

The authors concluded that the campaign had resulted in significant changes in knowledge and attitudes in study participants. They stated that the campaign had reached all but 6% of the Norwegian population over 14 years of age, which indicates that the level of awareness of the campaign was much greater than that of other nation-wide mass media approaches, such as the Defeat Depression campaign in the UK, which had an awareness level of only 5% of respondents (Paykel et al. 1997; 1998). The authors stated that the success of the campaign in terms of population penetration was due to its thorough planning, and the use of appropriate mass media and social marketing theories. They argued that the mass media are an effective vehicle for conveying information to the population as a whole, and that collaboration with the national media, public figures, and the Norwegian Council of Mental Health had enabled the campaign to attract widespread attention. Importantly, the authors noted that long-term follow-up was important to determine whether changes had been maintained. They stated that a follow-up survey would be conducted in 1995, however the results of this new survey do not appear to have been published.

In contrast to the large-scale mass media campaigns already mentioned, two studies looked at the impact of educational films on attitudes to mental illness. Medvene and Bridge (1990) conducted a study in the US that looked at the impact of a television documentary entitled Back Wards to Back Streets, which was designed to improve information levels and attitudes towards community-based treatment facilities for mental illness. The structure of the film followed a contact hypothesis approach, which promotes the concept that direct contact and interaction between different groups can change stereotypes and lead to more positive attitudes (Amir 1976). The aim of the documentary was to bring the audience into contact with individuals who had been in psychiatric hospitals, using the medium of television. The content of the film comprised personal interviews with 14 individuals, who each described their experiences of community-based treatment.

Participants in the evaluation consisted of selected mental health professionals, policy-makers, and members of the public in New York and Albany. The two groups of participants (405 in New York and 136 in Albany) were shown the documentary and then asked to complete questionnaires about community-based treatment facilities and their beliefs about mental illness. Half of the participants were also given the same questionnaire prior to viewing the documentary. In addition, several discussion groups were organised to obtain qualitative data from some of the participants who had viewed the documentary.

Participants in the New York City group showed significantly improved information levels and attitudes towards community-based treatment facilities after viewing the documentary. Beliefs about mental illness and mental health care amongst members of this group also changed, and more than 90% of this audience indicated that the film was ‘good’ and ‘informative’. The impact was found to be the same for mental health professionals, policy-makers and public members of the audience. By comparison, the
Albany group did not show significant changes in information levels or attitudes after viewing the documentary, but over 90% of the audience found the film to be ‘good’. The authors pointed out that the Albany group were better informed about issues related to community-treatment facilities than the New York group prior to seeing the film, and this may explain why attitudes and information levels did not change significantly in the Albany group. The authors concluded that television programs can alter information levels and attitudes to mental health issues among specific groups, and argued that the success of the documentary was a result of its personalised format, with the vast majority of the audience members indicating that the program was both enjoyable and informative.

A similar study by Tolomiczenko et al (2001) investigated the impact of a video film about homelessness and mental illness, but found less encouraging results. The aim of the study was to determine whether the video would be an effective tool for educating the public and improving attitudes to homeless people with mental illness. The video, entitled *A Fine Line*, depicted caseworkers, clients and psychiatrists involved in the Hostel Outreach Program in Toronto, Canada. In the film, the clients spoke about the course of their illness, and its relationship to their homelessness. The clients also conducted interviews with caseworkers and mental health professionals, who described the Hostel Outreach Program and its impact on homeless people with mental illness.

The evaluation of the video was conducted as part of a regular public education program run by the Centre for Addiction and Mental Health in Toronto. The education program generally comprised a tour of the centre, a video, discussions with people who have mental illness, group exercises and overviews of psychiatric terminology. For the purposes of the study, the regular education program acted as the control condition, and two variations of the program provided two different interventions. The first intervention, called the ‘video’ group, included the video *A Fine Line* in place of the video routinely used in the program. The second intervention, entitled the ‘video plus discussion’ group, utilised the video *A Fine Line* along with a follow-up discussion with one of the clients featured in the video presentation. The authors hypothesised that the intervention video would have a positive impact on attitudes to and understanding of homelessness, and that this effect would be enhanced by the follow-up discussion in the video plus discussion intervention.

Participants in the study comprised 575 high school students from 14 different schools who attended the public education program and completed assessment questionnaires. The questionnaires consisted of items relating to: exposure to homeless people, emotional responsiveness and empathy, attitude to mental illness, beliefs about dangerousness, aversion, restrictive beliefs, structural determinants of homelessness, disability, and blame. Of the 575 participants, 214 were in the video group, 186 comprised the video plus discussion group, and the remaining 175 formed the control group, who undertook the regular education program.

Participants completed questionnaires at post-intervention only. The results indicated that certain factors were significantly associated with more positive attitudes to homelessness and mental illness. Females had more positive attitudes than males, and those who had greater level of prior exposure to homeless people also showed more
positive attitudes to homelessness than those with lower exposure. With respect to the intervention groups, it was found that the video group had more negative attitudes to mental illness and homeless people than participants in other groups. In particular, participants in the video group held more negative beliefs about mental illness, and indicated stronger feelings of danger associated with homeless people. Participants who saw the video, with or without the follow-up discussion, were also more likely to endorse restrictions of homeless people, and to view disability as a cause of homelessness, compared with the control group. In contrast, the video plus discussion group showed more positive attitudes than the control group in terms of attitudes to mental illness and beliefs about dangerousness.

The authors concluded that the hypothesis had not been supported by the results of the study, as the findings indicated that the video had in fact resulted in more negative attitudes to mental illness and homelessness. The positive findings were that the combination of the video plus discussion with a homeless person resulted in some improvement in attitudes. Other factors that were associated with positive attitudes were being female and having higher level of previous exposure to people who are homeless. The authors stated that direct contact with people with a mental illness was important in reducing stigmatising attitudes. They also recommended that educational media messages about mental illness and homelessness should be carefully targeted to particular audiences to ensure that negative attitudes were not reinforced. A lack of appropriate planning may explain why the study did not achieve positive attitude changes similar to those found by Medvene and Bridge (1990).

Other modes of delivery

While a diverse range of studies has focused on mass media strategies, there has been relatively little research investigating the impact of other approaches to mental health education on a whole of community level. A series of studies from the U.K. by Wolff et al (1996a; 1996b; 1996c) investigated the impact of a localised public education campaign on community attitudes to people with mental illness. The studies involved a survey of attitudes towards in two areas of South London (Streatham Hill and Herne Hill) prior to the opening of supported accommodation houses for people with mental illness. When the supported accommodation facilities began operating in 1993, an education campaign was conducted in only one of the areas, and the attitude survey then repeated in both areas.

The education campaign comprised three elements: a social component, including social events and social interaction with staff; a didactic component, consisting of an information video and written material; and a mixed component, consisting of a formal reception and informal discussion meetings. The campaign was developed in consultation with staff from the supported accommodation houses, and the residents gave their consent for the campaign. The authors noted, however, that a number of objections to the campaign were raised by the community mental health staff, who felt that it would not be of benefit to the residents of the facility.

The surveys conducted prior to and following the education campaign involved face-to-face interviews and included questions dealing with knowledge of mental illness and mental health care, and attitudes to people with mental illness. In order to provide a measure of attitudes, participants were given the Community Attitudes to the Mentally Ill (CAMI) questionnaire. The CAMI questionnaire is a self-report
instrument containing 40 statements, which is designed to measure community attitudes to people with mental illness. Respondents indicate the extent to which they agree with each statement, from strongly agree to strongly disagree. For the purposes of this study, participants were also given a 10-item questionnaire focusing on fear of and behavioural intentions toward people with mental illness. During the follow-up survey, participants were also asked about their levels of contact with staff and patients from the supported houses.

The first survey indicated that the majority of the 215 participants held positive attitudes to people with mental illness. Three attitudinal factors measured by the CAMI questionnaire emerged as being of particular importance: Fear and Exclusion, Social Control, and Goodwill. Although there were found to be no overall differences in attitudes between the two survey areas at the beginning of the study, a significant minority in both areas were found to hold views that were fearful and socially controlling. The vast majority of respondents (91%) reported a desire for further information, however the authors noted that only one-third of participants in the experimental area actually accepted the offer of educational material during the campaign.

Following the public education campaign, 109 of the original 215 participants were interviewed again. The authors noted that those who had expressed more negative attitudes in the initial interview were more likely to refuse the second interview. The results of the second interview were that there was a small increase in knowledge in the intervention area, which had received the educational campaign, compared with the control area. In terms of changes in attitudes measured by the CAMI questionnaire, it was found that there was a decrease in Fear and Exclusion in the experimental area compared with the control area, but no change in Social Control or Goodwill. There was also an increase in reported positive behavioural intentions in the intervention area, with no corresponding change in the control area. Participants from the experimental area were significantly more likely to have made contact with staff and patients than those in the control area, and those in the experimental area who had made contact with patients were more likely to show a decrease in Fear and Exclusion over time.

Overall, the public education campaign was associated with an improvement in overall attitudes and behaviour towards people with a mental illness, but had only a modest effect on knowledge. The authors stated that higher levels of contact with patients, rather than the education campaign per se, resulted in less fearful attitudes in the experimental area. It was recommended that future education campaigns should be targeted more specifically towards those with the most negative attitudes to people with a mental illness.

The impact of another short-term education program was evaluated by Holmes et al (1999). The aim of this particular study was to measure the effects of an educational program on attitudes to mental illness, and to determine whether the impact of the program was modified by pre-existing knowledge and experience. The program involved a semester-long course about severe mental illness that was delivered to a total of 35 adult participants who were enrolled at a community college in metropolitan Chicago. The course, entitled Severe Mental Illness and Psychiatric Rehabilitation, was designed to provide accurate information and dispel
misconceptions about schizophrenia. It covered information about the causes, treatment and prognosis of schizophrenia, rehabilitation for people with psychiatric disability, and a review of the evidence relating to dangerousness. In addition, two presentations were given by a mental health consumer and a family member, with the intention of reducing negative attitudes to mental illness through direct contact.

Participants completed the course in three groups of 10 to 14 students, and the study was conducted over three separate semesters. A control group of 48 participants was recruited from adult students enrolled in a general psychology course at the same college. Participants from both the intervention and control groups completed questionnaires prior to and following the education course. Two questionnaires were designed specifically for the study in order to measure knowledge of mental illness and contact with people with severe mental illness. In addition, attitudes were measured using the Opinions about Mental Illness (OMI) questionnaire. The OMI questionnaire comprises 70 statements about mental illness to which respondents indicate their level agreement on a six-point scale. Three subscales measured by the OMI questionnaire were selected for this study: authoritarianism, benevolence, and social restrictiveness.

It was found that participants in the intervention group showed significant improvement in knowledge about mental illness following the education course, however no corresponding change was found in the control group. Participants in the intervention group also showed significantly improved benevolence and social restrictiveness attitudes on the OMI questionnaire, while control group participants demonstrated improvement on benevolence scores only. No significant change was found in authoritarian attitudes for either group.

When the results were analysed to determine the impact of prior knowledge and contact with mental illness, it was found that these variables were significantly associated with a number of changes in attitudes measured by the OMI questionnaire. Specifically, participants with a higher level of knowledge or contact with severe mental illness prior to the program demonstrated significantly greater improvement in benevolence attitudes following the education program. These improvements were greater for participants in the intervention group, compared with changes in the control group. In contrast, prior level of contact was associated negatively with changes in social restrictiveness score. Those who reported least contact with severe mental illness prior to the program demonstrated greater improvements in social restrictiveness attitudes following the education course.

The authors concluded that the education course had improved attitudes to mental illness. In particular, it was found that benevolence and social restrictiveness attitudes improved throughout the education program. A change in benevolence attitudes was also found in the control group during the study, however this was smaller in magnitude than that of the intervention group. The authors stated that pre-education knowledge and contact with mental illness mediated the effects of the educational program. Prior knowledge and contact were found to augment improvements in benevolence attitudes. This supports the finding of Wolff et al (1996a; 1996b; 1996c) that improved attitudes were associated with social contact with people with mental illness, rather than education alone. In contrast, Holmes et al also found that prior knowledge and contact were negatively associated with social restrictiveness scores.
The authors noted that they were unable to determine which particular components of the education course were associated with attitude change, and it is not known whether changes were maintained in the long term.

**Methodological issues**

A range of important methodological issues and limitations were raised in the literature outlined above. For example, evaluations of the Defeat Depression campaign were limited in that they did not involve the use of a concurrent control group for comparison with the intervention group (Priest et al 1996; Paykel et al 1997; 1998). The authors stated that, because the campaign was run at a national level, it was not possible to include a control group. This was also the case with the evaluation of the Norwegian Mental Health Campaign (Fonnebo and Sogaard 1995; Sogaard and Fonnebo 1995). These studies both involved a pre-test/post-test design, which means that measurements of attitudes were taken at the beginning of the study, enabling the intervention groups to act as their own controls. It is important to note, however, that the lack of concurrent control groups is a weakness in long-term studies. As a result of this limitation, it is unclear whether the attitudinal changes described in each study were in fact associated with campaign activities. In particular, Paykel et al noted that very few of the participants in their study reported that they had actually heard of the campaign, which may indicate that other factors were involved in the attitudinal changes identified. In addition, many of the improvements in knowledge and attitudes found in the studies were quite small in magnitude.

The review of the Community Awareness Program (Evans Research 1999) in Australia differed from most other studies in this section in that it involved a post-test only design, and as the intervention occurred at a national level the study did not involve a control group. Tolomiczenko et al (2001) also conducted a post-test only study, and therefore were unable to show whether attitudes had in fact changed over the course of the interventions. While the study did involve concurrent controls, the authors did not compare the characteristics of the different intervention and control groups. It is therefore unclear whether the groups were similar, and whether attitudes varied between the groups prior to the intervention. Although the program was intended to educate the general public, the study sample was limited to high school students, which may limit the generalisability of the findings to the general population.

Evaluations of the Norwegian Mental Health Campaign (Fonnebo and Sogaard 1995; Sogaard and Fonnebo 1995) involved a control group for the post-test interview only, to control for the possible confounding factor of being interviewed prior to the commencement of the campaign. Of the original sample in this study, only 54% were interviewed at follow-up, which indicates a high level of attrition. The authors noted that the characteristics of the follow-up sample were slightly different from that of the total population, with an over-representation of women aged 25 to 39 years. It was found, however, that there were no significant differences between the follow-up sample and the control sample in terms of levels of awareness and interest in the campaign, indicating that there were no serious biases in the follow-up sample to account for the observed changes in attitudes following the campaign.

Methodological issues relating to sampling were also described by Wolff et al (1996a; 1996b; 1996c), who stated that, in their study of community attitudes, the
demographic characteristics of the participants in the control group were slightly different from those in the intervention group. While there were no overall differences in attitudes between the two groups prior to the campaign, the authors acknowledged that the study sample was not representative of the overall population. In particular, there was an over-representation of people from higher social class and from particular ethnic groups. The authors stated that conclusions about the applicability of the findings to the general population could be tentative only. It is also important to note that, in the follow-up survey of attitudes, participants who had expressed more negative attitudes at baseline were also more likely to refuse the second interview. This may have resulted in a biased follow-up sample, and could account for some of the improvement in attitudes found following the educational intervention.

Holmes et al (1999) found in their study that the demographic characteristics of participants in the intervention group were similar to the population as a whole, however there were differences between the intervention and control groups. Participants were not randomly assigned to groups, and the authors acknowledged that the differences noted may have been a confounding factor in the results of the study. The authors stated that the general psychology course undertaken by the control group did not specifically provide information about severe mental illness and issues of stigma, and therefore had not been expected to result in significant changes in attitudes. Despite this, it was found that benevolence attitudes significantly improved in the control group, and it was argued that differences in mean age between the two groups may have been associated with this unexpected finding.

Specific issues were raised in the study by Barker et al (1993), which investigated the impact of the television series You in Mind. The authors acknowledged that the study design proved to be insufficiently sensitive to measure much of the impact of interest. Although the study used an initial sample size of 1040, there was a low response rate for the follow-up questionnaire, with only 52% of initial participants providing follow-up information. This was similar to the response rate obtained in the evaluation of the Norwegian Mental Health Campaign (Fonnebo and Sogaard 1995; Sogaard and Fonnebo 1995). In contrast to the Norwegian campaign, however, only a small minority of respondents in the UK study had actually viewed the television series, making it difficult to compare those who had viewed the series with the much larger group who had not.

The study by Medvene and Bridge (1990), while showing quite positive results in one of the study groups, also had a number of important limitations. The participants were not randomly selected, and the majority were mental health professionals who may be expected to be more receptive to information about mental health issues than the general public. This is a significant factor when considering the generalisability of the findings to the population as a whole. Similarly, the review of the Community Awareness Program (Evans Research 1999) in Australia did not involve a random sample of the population, as participants in the study were chosen from particular professional and consumer groups. In addition, there was a very low response rate to the surveys of general practitioners (25%) and other medical and mental health professionals (26%), and it is possible that those responding to the survey were not representative of the overall target group. As a result of the study’s methodological issues, it is difficult to draw valid conclusions about the usefulness of the information brochures for improving community awareness. Although the study attempted to
quantify survey findings in terms of levels of awareness and usefulness of the brochures, the key findings of the study were more qualitative, and related to recommendations for improvements in distribution and content of future educational materials.

Another important methodological issue in many of the studies was that measures tended to rely on self-reporting, particularly those relating to aspects of behaviour change. Paykel et al (1997; 1998) acknowledged in their study that it was not possible to measure the validity of reported intentions to change behaviour, and this may have caused a large degree of over-reporting. Importantly, Barker et al (1993) noted in their study of the television series *You in Mind* that validity checks had indicated considerable over-reporting in terms of behaviour change amongst study participants.

**Summary**

Despite important methodological limitations, the literature indicates that mass media campaigns can have a positive impact on levels of mental health literacy in the population. These findings are consistent with conclusions drawn from more general communication research literature (see Section 4). Evaluations of programs conducted at national and statewide levels generally indicated that attitudes and knowledge improved; however the extent of changes was acknowledged to be limited. There were some indications of positive changes in behavioural intentions and reported behaviour, however the reliability of self-reported behaviour changes was not able to be determined.

Mass media programs included in this review varied in terms of audience penetration. A Norwegian program reportedly reached 94% of the population, compared with levels of awareness of only 5% for the Defeat Depression Campaign in the UK. Studies of modes of delivery other than mass media were not common, and were less conclusive about changes in knowledge, attitudes and behaviour. There were, however, indications that social contact with people experiencing mental illness may be associated with improved community attitudes.

A number of recommendations may be made about the content and mode of delivery of campaigns targeted to the whole of the community. Importantly, evaluations of other health communication campaigns conducted in Australia and overseas have found that messages are particularly well received when the positive outcomes of attitudes or behaviours are communicated. With respect to mode of delivery, the literature indicates that mass media campaigns may be most effective when complemented by other more direct approaches, such as the dissemination of printed materials or community activities. (See also Section 4)

While it may be concluded that mass media campaigns in particular are a potentially effective approach to improving mental health literacy, it should be acknowledged that such strategies are generally expensive, and none of the studies adequately addressed the issue of cost-effectiveness. It is clear that further evaluation of mental health literacy programs is required, particularly in the area of cost-effectiveness of programs targeting the whole of community. There is often a tendency in planning mass media campaigns to equate them with typical advertising campaigns and, as discussed below in Section 4, this may well be an inappropriate strategy.
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<th>Investigators</th>
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| Priest, Vize, Roberts, Roberts and Tylee (1996) | Whole of community     | Separate samples pre-test/post-test study with no concurrent controls | United Kingdom | Nationwide Defeat Depression campaign involving wide range of media conducted 1991-1996. Surveys of 2000 participants about public attitudes towards depression conducted at baseline (1991) and follow-up (1995 & 1997) | Media activities included a press conference and reports of personal experience of depression by several high profile individuals. Publications including leaflets and books about depression were produced and disseminated widely. Fact sheets were prepared in different languages to reach ethnic minority populations. Audiocassettes and videotapes promoting coping techniques for people with depression were produced. Defeat Depression Action Week was held in 1994, involving media briefings and community activities, and further Action Days were held in 1995 and 1996. | • Community attitudes to depression were positive with little change over the study period  
• Attitudes to treatment for depression improved over the study period  
• Very few participants (5%) could recall the campaign |
<p>| Paykel, Tylee, Wright, Priest, Rix, Hart (1997) |                        |                                                  |               |                                                                        |                                                                                                                                                                                                               |                                                                                                         |</p>
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| Barker, Pistrang, Shapiro, Davies, Shaw (1993) | Whole of community        | Pre-test/post-test study with non-viewers acting as control group | United Kingdom | Nationwide mental health promotion television series *You in Mind* screened in 1987. Surveys of 1040 participants were conducted at baseline and at follow-up 12 months later. | The television series, *You in Mind*, comprised seven ten-minute programs presenting information about mental health problems and providing examples of coping methods. The programs were positive in tone, and depicted ordinary people describing coping skills for common emotional problems. The program titles were: The Tranquiliser Trap, Being Assertive, Overcoming Insomnia, Overcoming Fear, Overcoming Depression, Expressing Feelings, and Change. A booklet was available on request, and provided supplementary information about mental health topics and details of national and local mental health services. | • The series was viewed by 13% of population  
• For those who viewed series there was some evidence of positive impact on attitudes towards people with mental illness  
• Around 45% of viewers stated that they had changed or intended to change their behaviour in terms of coping with their own problems |
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<td>Medvene and Bridge (1990)</td>
<td>Whole of community</td>
<td>Pre-test/post-test study with no concurrent controls</td>
<td>United States</td>
<td>541 participants viewed mental health education television documentary in two separate groups. Participants surveyed about attitudes towards mental illness prior to and after viewing program.</td>
<td>A television documentary was produced with the aim of bringing the audience into contact with individuals who had been in psychiatric hospitals. The content of the film comprised personal interviews with 14 individuals, who each described their experiences of community-based treatment.</td>
<td>Viewing intervention program resulted in improved attitudes towards mental illness in one of the study groups</td>
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<td>Evans Research (1999)</td>
<td>Whole of community</td>
<td>Post-test only study with purposive sampling and no concurrent controls</td>
<td>Australia</td>
<td>Nationwide Community Awareness Program was launched in 1995, comprising mental health information brochures. Evaluation of the program in 1999 involved surveys of health professionals, mental health organizations and consumer groups.</td>
<td>The evaluated component of the campaign included a series of mental health information brochures covering the topics: mental illness, stigma, the National Mental Health Strategy, depression, anxiety, eating disorders, schizophrenia, and bipolar disorder.</td>
<td>• More than half of the respondents had seen the brochures • All brochures were considered to be highly useful • Recommendations were made for development of new materials, including an expanded set of titles, and the use of an integrated brochure, CD-ROM and web site • Recommendations were made for improving the distribution approach, e.g. through collaboration with State and Territory health departments</td>
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| Fonnebo and Sogaard (1995) | Whole of community     | Pre-test/post-test study with control group at post-test only | Norway  | Nationwide mental health promotion television program broadcast in 1992. Survey of 1191 participants was conducted prior to the campaign, and a follow-up survey of 644 of the original participants was conducted one month after the broadcast. | The campaign comprised a six-hour fund-raising television program broadcast nationwide. The program included information about mental health issues, entertainment and fund-raising activities. Prior to the broadcast of the program, newspaper and television advertisements, and educational television and radio programs about mental illness raised awareness of the campaign. A campaign newspaper was sent to every household, and information was distributed to organizations including community health centres, schools, libraries and psychiatric institutions. The campaign was supported by the government, the King and Queen of Norway, and a number of church organisations. Community activities were also organised to coincide with the campaign. | • Approximately 94% of participants were aware of the campaign, and 62% had viewed the television program  
• There were positive changes in knowledge and attitudes following the campaign |
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| Tolomiczenko, Goering and   | Whole of Community    | After only study with non-randomisation of concurrent controls and two         | Canada  | 575 participants selected from high school students attending a brief  | A video about mental illness and homelessness, entitled *A Fine Line*, was produced for the program, and depicted caseworkers, clients and psychiatrists involved in the Hostel Outreach Program in Toronto, Canada. The evaluation of the video was conducted as part of a regular public education program. For the purposes of the study, the regular education program acted as the control condition. The program was varied to provide two different interventions: the ‘video’ intervention included the video *A Fine Line* in place of the video routinely used in the program, and the ‘video plus discussion’ intervention, utilised the video *A Fine Line* along with a follow-up discussion with a homeless person. | • Viewing the video resulted in more negative attitudes to mental illness and homelessness  
• The combination of the video plus discussion with a homeless person resulted in some improvement in attitudes.  
• Direct contact with people with a mental illness was associated with more positive attitudes.  
• Recommendation that educational media messages about mental illness and homelessness should be targeted to particular audiences |
<p>| Durbin (2001)               |                       | educational program. Participants were in one of three groups: video, video plus discussion, and control. Questionnaires were completed following the program to measure attitudes to mental illness and homelessness. |         |                                                                        |                                                                                                                                                                                                                 |                                                                                                                                                                                                             |</p>
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| Wolff, Pathare, Craig and Leff (1996a)| Whole of community      | Pre-test/post-test study with non-randomisation of concurrent controls | United Kingdom | A survey of attitudes to mental illness was undertaken in two areas of South London prior to the opening of a supported accommodation house for people with mental illness in 1993. An education campaign was conducted in one area, and a follow-up survey of attitudes conducted in both areas. | The education campaign comprised three elements: a didactic component, consisting of an information video and written material; a social component, including social events and social interaction with staff; and a mixed component, consisting of a formal reception and informal discussion meetings. The campaign was developed in consultation with staff from the supported accommodation houses. Approximately one-third of participants in the intervention area agreed to receive the educational material. | - There were some improvements in attitudes and behaviour in the intervention area, but only a small change in knowledge  
- Social contact with patients was associated with less fearful attitudes in the intervention area |
<p>| Wolff, Pathare, Craig and Leff (1996b)|                         |                                                |             |                                                                        |                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                          |
| Wolff, Pathare, Craig and Leff (1996c)|                         |                                                |             |                                                                        |                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                          |</p>
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| Holmes, Corrigan Williams, Canar and Kubiak (1999) | Whole of community | Pre-test/post-test study with non-randomisation of concurrent controls | United States | Education program about severe mental illness was administered to 35 adult students enrolled at a community college. A second group of 48 students in a General Psychology course acted as a comparison. Participants completed Opinions about Mental Illness questionnaire prior to and following the education program. | The program involved a semester-long course about severe mental illness, which aimed to provide accurate information and dispel misconceptions about schizophrenia. The course provided information about rehabilitation for people with psychiatric disability. There was discussion of the causes, treatment and prognosis of schizophrenia, and a review of the evidence relating to dangerousness. Presentations were given by a mental health consumer and a family member, with the intention of reducing negative attitudes to mental illness through direct contact. | • There were some positive changes in attitudes in the intervention group following the program.  
• A greater level of prior knowledge and contact with people with mental illness mediated the effects of the program. |
3. Review of individual studies - Programs targeted to specific populations

A number of programs designed to improve mental health literacy have been directed towards specific subgroups of the population, rather than to the general community as a whole. Studies focusing on targeted mental health literacy programs are included in this section of the review. The key findings from each of the studies are outlined in Table 2.

Mental health literacy programs may focus specifically on certain groups within the population who have a particular need for mental health education. For example, it has been argued that lack of mental health literacy can create difficulties for families and caregivers, and therefore mental health education targeted to these groups may help to improve quality of life for people with mental illness (Pickett-Schenk, Cook et al. 2000). Seven studies included in this review evaluated mental health education interventions targeted to caregivers, and overall found beneficial effects. While it is recognised that mental health consumers are themselves an important target group for similar mental health education programs, it is important to note that no formal evaluations of such programs were identified for inclusion in this review.

Adolescents are also recognised as an important target population for mental health literacy and awareness programs. Programs targeted to adolescents are generally delivered through schools, often by incorporating mental health issues into the school curriculum, and sometimes through a ‘whole-school’ approach, addressing the opportunities for promoting mental health beyond classroom mental health education. Five programs targeted to adolescents were identified for inclusion in this review, all of which were delivered in school-based settings.

Other groups who may not otherwise be reached by more general community programs, such as people from non-English speaking backgrounds, have also been identified as important target audiences for programs to improve mental health literacy. While several projects have examined the needs of people from different cultural backgrounds (Delgado 1980; Meiser and Gurr 1996; Chien, Kam et al. 2001), only one evaluation of a mental health literacy program targeted to these groups was found for inclusion in the review.

Carers and families of people with mental illness

A number of studies have focused on education programs targeted specifically to family members of people with mental illness. Pickett-Schenk, Cook and Laris (2000) evaluated the mental health education program, Journey of Hope, which was developed by the National Alliance for the Mentally Ill (NAMI) in the United States in 1993. The program aimed to provide education and skills to family members of people with mental illness to assists in their role as caregivers. It comprised an eight-week education course and a long-term support group. Participants were not required to attend both parts of the program, and thus participated according to their own perceived needs. The education course and support groups were conducted by volunteers, who were all relatives of people with mental illness. Course instructors
and support group leaders received training from the National Journey of Hope Institute.

The evaluation aimed to investigate the outcomes for families who had participated in the program from 1993 to 1996. Participants were given a series of questionnaires after their participation in the program, which were designed to assess participation level, satisfaction with the program, and achievement of program outcomes. A total of 1,131 participants were sent questionnaires about the program, and responses were received from 424 individuals, giving a response rate of 39%. The majority of respondents were female (79%), and were parents of a person with a mental illness (65%). The relatives being cared for were predominantly male (67%), and most frequently had a diagnosis of schizophrenia (42%). It was found that the overwhelming majority of participants who responded to the questionnaire felt the program had resulted in improvements in their knowledge of causes and treatment of mental illness, their knowledge of the mental health care system, and their overall morale.

The authors examined whether particular factors were predictive of achievement of program outcomes. It was found that participants who expressed greater satisfaction with the education program were more likely to report improved knowledge of both mental illness aetiology and mental health services. It was also found that those who were caring for a relative with a diagnosis of schizophrenia reported increased knowledge of causes and treatments of mental illness, while those whose relatives did not have schizophrenia tended to report improved morale as a result of the program. Overall, the authors stated that the Journey of Hope program may assist families to cope in their role as caregivers, and proposed that the program may be appropriate for offering education and support in future to families of people with mental illness.

An early study by Leff et al (1982; 1985) investigated the impact of a social intervention for families of people with schizophrenia. The aim of the project was to determine whether a social intervention could affect the course of schizophrenia in individuals who were also on anti-psychotic medication. The social intervention involved a brief educational program, a support group for relatives, and family sessions held in the home. The educational component comprised two sessions, and provided information about the causes, symptoms, prognosis and management of schizophrenia.

The study design involved a randomised controlled trial, with 24 participants selected from recent admissions to three London hospitals. All participants were aged from 16 to 65 years, had been living with relatives prior to admission, spent more than 35 hours per week in direct contact with at least one relative, and lived close to the hospital of admission. In addition, at least one member of the family had been identified as ‘high expressed emotion’, as the authors were interested in the impact of expressed emotion on the course of schizophrenia. All 24 participants had been prescribed anti-psychotic medication, and families were randomly assigned to either the intervention or control group. Characteristics of both groups were found to be similar, with the exception that the participants in the intervention group had experienced significantly greater duration of unemployment prior to hospital admission.
The social intervention was conducted with the intervention group for nine months, and follow-up was conducted immediately after the program, and again at two-years post-intervention. At two-year follow-up, it was found that a total of five participants had discontinued their medication. Three of these participants were from the control group, and the remaining two were in the intervention group. These participants were excluded from the evaluation of the program, as the aim of the intervention was to examine its impact in addition to regular pharmacological treatment. For the remaining participants, it was found that there had been a relapse rate of 78% in the control group, and only 20% in the intervention group. Relapses were defined as either the reappearance of symptoms of schizophrenia or the exacerbation of previously stable symptoms. The difference in relapse rate between the two groups was statistically significant. It was also found, however, that a number of suicide attempts had been made by participants, and when these were included in the rate of treatment failure, there were no significant differences between the two groups.

The authors concluded that the social intervention had resulted in improved outcomes for participants in terms of schizophrenic relapse. They acknowledged, however, that this was not the case when suicide was included as a measure of management failure, along with reappearance or exacerbation of symptoms of schizophrenia. It is important to note that the authors did not attempt to measure whether the social intervention had any impact on the knowledge, attitudes and behaviour of families who participated, therefore it is unclear whether the educational aspects of the program achieved changes in mental health literacy.

This particular issue was addressed in a later study by Berkowitz et al (1984; 1990), which aimed to measure the impact of the educational aspect of the program described by Leff et al (1982; 1985). The later study included 33 participants from 23 different families of people with schizophrenia, and inclusion criteria for participants were similar to those in the earlier study by Leff et al. All participants undertook the educational program, and were then randomly allocated to either a relatives’ group or to family therapy for the remainder of the study.

The educational component comprised four brief presentations given by mental health professionals about causes, symptoms, diagnosis, treatment and course of schizophrenia. The content of the educational program remained the same as in the earlier study, however the information was presented in a more personal manner. Participants received the information in their homes, and each family was given the presentations separately. Evaluation of the educational program involved interviews with participants, which were designed to measure changes in knowledge. Interviews were conducted prior to the program, immediately following the education component, and again nine months later. Of the 33 participants, 21 completed all three interviews, and only these complete data sets were included in the analysis.

It was found that responses to several questions changed significantly over the course of the education program. In particular, there were increases in the number of participants who knew what was wrong with their ill relative and could name the condition. At nine-months follow-up, significantly more participants stated that schizophrenia could be inherited, family members’ attitudes to the ill relative had improved, and there was increased optimism for the future of ill relatives. It was
found that there were no significant differences in knowledge between participants in the relatives’ group and those in the family therapy group.

It was concluded that the changes in knowledge measured immediately following the program could most likely be attributed to the impact of the educational component. The authors stated that the changes identified at the nine-month follow-up might have been influenced by the therapeutic interventions in addition to the education program. In contrast to the previous study, the authors were able to demonstrate that the educational component of the program had an impact on knowledge. They acknowledged that immediate changes in knowledge were limited and were largely related to diagnosis, however they argued that initial changes may have enabled families to develop greater tolerance for their ill relatives and to continue improving their knowledge.

A similar program for families of people with schizophrenia was evaluated by Smith and Birchwood (1987). The evaluation focused on the benefits of an educational program for relatives and mental health consumers, and measured changes in knowledge and perceptions of schizophrenia. Participants in the study were 23 families who had a relative with schizophrenia, and who were selected using a random sample of patients with schizophrenia from a hospital in Birmingham. Patients who were selected for the study all had one or more major symptoms of schizophrenia, were either living at home or in close contact with their family, and had been prescribed neuroleptic medication. Participants from the 23 families were randomly assigned to one of two intervention groups.

The first group was designated the ‘group condition’ intervention, and received an educational intervention consisting of four information sessions conducted by a therapist over a four-week period. The sessions were in a seminar format, and included oral and audiovisual presentations, as well as general question and answer discussions. Participants also received a booklet containing information covered in each session and a written homework exercise. The second group, referred to as the ‘postal condition’ intervention, received only the information booklet and the corresponding homework exercise through the post each week over the four-week period. Information given to both groups was divided into four sections, comprising: concepts and causes of schizophrenia, symptoms of schizophrenia, treatments and prognosis, and hospital and community resources.

Evaluation of the program involved measures of knowledge, beliefs, worry and fear, behavioural disturbance, stress and family distress. Measurements were taken prior to the commencement of the program, immediately following the intervention, and again at six-months follow-up. It was found that there were no significant differences between the two intervention groups at baseline on any of the measures, with the exception that the participants in the postal group had a significantly higher level of worry.

Following the program, there were significant improvements in knowledge in both groups, which were maintained after six months. However, it was found that group condition participants gained significantly more knowledge than postal condition participants. Participants in the two groups indicated similar beliefs about the treatment and course of schizophrenia throughout the study, however immediately
following the intervention the group condition participants indicated increased optimism about the role of the family in treatment compared with the postal group. This difference disappeared at six-months follow-up.

In terms of measures other than those relating to knowledge and beliefs, it was found that levels of fear decreased for both groups following the intervention. At six-month follow-up this change was only maintained in the postal group. Scores for levels of stress also decreased for both groups immediately following the intervention, however this was not maintained in either group after six-months, when it was found that scores had returned to baseline levels. Levels of reported burden on the family did not change immediately following the intervention, however for both groups there were significant reductions in this measure at six-months follow-up. Scores for symptom related behavioural disturbance in the family members with schizophrenia did not alter in either group throughout the study.

Overall, the findings of the study indicated that the educational intervention had resulted in significant improvements in knowledge and reductions in stress and fear among participants. However, no association was found between levels of knowledge attained and measures of other effects on family members. After six months, only the changes in knowledge were maintained, and all other effects had returned to baseline levels, with the exception that participants in the postal group maintained reductions in levels of reported fear. The authors stated that the information presented to participants in both groups had resulted in increased knowledge, however knowledge acquisition was enhanced in the participants who were presented with the educational information in group sessions. Most other effects of the intervention were common to both groups, which indicates that the information content itself was responsible for these changes, rather than the mode of delivery. The authors stated that the study had shown that access to written information was an effective and less costly alternative to group education. They acknowledged, however, that such an approach lacked flexibility for adaptation to individual needs and did not provide opportunities for feedback and clarification.

Solomon et al (1996) conducted a randomised controlled trial to investigate a similar program for relatives of people with serious mental illness. Two different psychoeducational strategies were selected for the program: group psychoeducation and individualised consultation. The program was broader than those investigated in previous studies in that it sought to include family members regardless of whether the ill relative was residing with the family or was seeking treatment. The study therefore aimed to measure the impact on family members of interventions that were independent of the treatment or participation of ill relatives. The two interventions compared in the study were developed by family advocates and mental health professionals, and were administered by the Training and Education Center (TEC) Network. Investigations in the current study involved measurement of the impact of the interventions on participants in terms of subjective burden, grief, social support, self-efficacy, mastery, adaptive coping, and stress.

The study was conducted in a city on the east coast of the US, and participants were recruited through support groups, hospital social service departments, family information programs, and media presentations. Individuals asked to participate in the study were relatives of people who had been diagnosed with either schizophrenia or
major affective disorder at least six months prior to the study. Participants were required to have major responsibility for and be in regular contact with the ill relative, and participants and ill relatives were all at least 18 years of age. A total of 225 participants were recruited for the study and were randomly allocated to one of three groups: 66 were assigned to individual family consultation, 67 to group family psychoeducation, and 92 were allocated to a ‘waiting list’, which acted as the control group.

Interventions were conducted over three months, and participants were surveyed prior to and following the intervention period. The individual family consultation intervention involved between six and fifteen hours of educational assistance provided by a specialist consultant to either the whole family or one family member. Group family psychoeducation comprised ten two-hour sessions, which were delivered to participants in eleven separate groups, and were facilitated by trained mental health specialists and peer consultants.

Following the intervention period, it was found that the only significant outcome associated with the interventions was an improvement in specific self-efficacy. Specific self-efficacy was defined as confidence in one’s ability to understand a relative’s mental illness and cope with its consequences. The authors stated that this finding was not unexpected, as the psychoeducational interventions tended to focus on improving family members’ confidence in relating to their ill relatives. Further analysis was conducted to determine whether prior experience in support groups had an impact on outcome of the interventions in terms of specific self-efficacy. It was found that individual consultation resulted in improved self-efficacy regardless of prior support group attendance, while group psychoeducation was beneficial only to those who did not have previous support group experience.

It was concluded that, while both psychoeducational interventions had demonstrated improvements in self-efficacy among participants, individual consultation was more useful than group psychoeducation for those who had previously attended family support groups. The authors noted, however, that individual approaches involve greater resources than group strategies. They therefore concluded that it might be appropriate to adapt group psychoeducational sessions to involve components of the individual consultation model, such as focusing on providing empathy and support to individual group members.

In contrast to the previous studies, which examined educational programs for general family members, Mannion, Mueser and Solomon (1994) studied the impact of a program designed specifically for spouses of people with severe mental illness. The program involved a group psychoeducational approach, and comprised ten two-hour sessions conducted over consecutive weeks. As in the previous study (Solomon et al 1996), the program was administered by the Training and Education Center (TEC) Network. The program was developed following collaboration between mental health professionals and a number of spouses of people with mental illness who had previously attended coping skills workshops at the TEC. Each of the ten sessions was facilitated by a mental health professional and a trained family member, and involved a 30-minute oral presentation followed by a 90-minute discussion of coping skills. Participants also took part in role-play exercises, and were provided with written material and homework tasks.
The aim of the evaluation was to measure whether the program improved knowledge of mental illness and coping strategies. A questionnaire was developed for the purposes of the study, and was administered prior to and following the program, and at one-year follow-up. The questionnaire included items about attitudes to the ill partner and levels of personal distress, as well as questions relating to knowledge of mental illness and coping skills. A total of 34 participants who took part in the program were involved in the study, however only 19 (68%) completed questionnaires prior to and immediately following the program. Of these participants, 10 (53%) completed the one-year follow-up assessment.

The results of the questionnaire administered prior to the program indicated that high levels of personal distress were significantly associated with negative attitudes to the ill spouse. Following the program, it was found that there were statistically significant improvements in participants’ knowledge of mental illness, coping skills, levels of personal distress and attitudes to the ill partner. These improvements were maintained twelve months after the program. Analysis of the results showed that reduced levels of distress were associated with improved attitudes to the spouse. However, it was found that changes in knowledge and coping skills were not related to improved levels of distress or attitudes to the ill partner.

The authors concluded that the program had been effective in improving participants’ knowledge and coping skills, while reducing levels of distress and negative attitudes to the ill spouse. However, they also stated that improved knowledge and coping skills were not directly related to observed changes in distress and attitudes. It was hypothesised that social support attained from the intervention may have been responsible for reduced distress and more positive attitudes. The authors argued, however, that improving knowledge of mental illness was an important goal of spouse educational programs, as this may lead to improved ability to monitor symptoms and management of the illness.

A mental health education program specifically for caregivers of elderly people with a mental illness was evaluated by Raskin et al (1998). The study involved 20 caregivers at community residences in the United States who were providing care to a total of 63 veterans aged 55 years or older. The education program comprised two sessions conducted over two weeks. Each session ran for two hours, and presenters included mental health and allied health professionals. Presentations included information about the causes, symptoms and treatment of major mental illnesses, and the provision of support and care for the elderly residents. In addition to the presentations, participants in the program received an information manual, providing an overview of symptoms and treatment of mental illness, and focusing in particular on issues relating to the elderly.

The program was evaluated using assessment instruments designed by the authors to determine the impact of the training sessions on the elderly residents. Following the program, participants were asked to rate the usefulness of the program, and a follow-up survey one year later was designed to provide information about the experiences of the residents who were looked after by the caregivers.
Information collected prior to the program indicated that the residents involved in the study were generally single, white males with a mean age of 66 years. The vast majority (82%) had a diagnosis of schizophrenia. Living conditions were rated positively overall, and 91% of the residents had previously been hospitalised. Following the program, the majority (70%) of caregivers who had participated in the program indicated that they found it helpful. In particular, the information provided about mental illness and treatments was well received by participants, and the vast majority (88%) enjoyed the opportunity of meeting with other caregivers.

At the one-year follow-up, it was found that there was a significant decrease in the number of hospital admissions for the 63 residents during the twelve months following the program (26 admissions), when compared with the twelve months prior to the program (37). The majority of hospital admissions which occurred in the year following the program were for medical reasons (17) rather than psychiatric reasons (9), however those admitted for psychiatric reasons generally spent more time in hospital than those admitted for medical reasons. It was found that there were few changes in living arrangements for the residents in the year following the program. There was, however, some improvement in terms of the number of ‘quality of life’ activities for the residents.

The authors concluded that the education program served a useful purpose for the caregivers who participated, and that hospital admissions for the elderly residents decreased following the program. They also stated that the individuals with mental illness who were involved in the study were happy with their living arrangements, and that they were able to develop positive relationships both with caregivers and with other residents in the home. The authors argued that these findings provided support for the policy of placing people with chronic mental illness in community residences.

**School-based programs for adolescents**

Two studies conducted in Australia have considered the impact of school-based mental health literacy programs targeted to adolescents. A recent evaluation of the MindMatters pilot project in Australia identified a number of positive outcomes, although the overall findings were mixed (MindMatters Evaluation Consortium 2000; Wyn et al. 2000). The MindMatters pilot project was undertaken in 1998 and 1999 in 24 schools selected from all Australian states and territories. The aims of the project were to improve attitudes, values and knowledge of mental health, improve life skills capabilities among young people, improve access to mental health resources, and promote models of excellence in mental health promotion in schools. The project involved the development of resources for a whole-school approach to mental health promotion, and was based on the Health Promoting Schools concept (Commonwealth Department of Health and Family Services 1996). This approach included incorporating mental health education into the school curriculum, as well as addressing school policies and practices.

At the beginning of the program, teachers were provided with two days of professional development activities, in order to introduce the concepts of Health Promoting Schools and MindMatters. Each of the schools involved in the project then established a ‘core team’, who were responsible for planning and implementing the project. At the beginning of the project, schools conducted an audit of their current mental health curriculum and activities, then utilised the MindMatters resource
documents to implement strategies that addressed their particular needs. Classroom resources developed for MindMatters related to four key issues: enhancing resilience, understanding mental illness, bullying and harassment, and loss and grief. Each school agreed to incorporate at least one of the curriculum units into their educational program. Schools also developed a range of activities as part of their whole-school strategies, which included youth forums, mental health days, producing plays and videos, and conducting staff surveys about mental health issues. Schools were also encouraged to form partnerships with community organizations and health agencies to enhance the whole-school approach to mental health promotion.

Following the project, an evaluation study was undertaken involving qualitative and quantitative methods. One of the key aims of this study was to measure outcomes for students involved in the program in terms of changes in knowledge and attitudes to mental health, quality of school life, and coping style. Students were administered a ‘Knowledge and Attitude’ questionnaire, developed for the project. They were also given the Quality of School Life Questionnaire, to assess changes in perceptions of school life, and the COPE questionnaire, which is designed to measure coping styles. Questionnaires were administered at baseline, during the project, and following the project. It should be noted that incomplete data sets were received from six of the schools, and a further five schools did not provide any data from the questionnaires.

It was found that, although all schools implemented at least part of the curriculum resources, there was a lower level of commitment to introducing changes in school ethos and developing new community partnerships. With respect to the curriculum, the most frequently utilised resources related to ‘Dealing with Bullying’, with eighteen schools incorporating this into the curriculum. In addition, twelve schools used ‘Understanding Mental Illness’, ten schools used ‘Enhancing Resilience’, and only four schools trialled the ‘Loss and Grief’ curriculum.

Evaluation of student outcomes indicated that there was in fact a decrease in the proportion of students who could define mental health in health-related terms, and a decrease in the proportion of students who could correctly name one mental illness, following the project. In contrast, there was a significant increase in the proportion of students who stated that they would be willing to have someone with a mental illness marry into their family, or to have someone with a mental illness as a teacher. There was no change in the proportion of students who nominated school as a source of information about mental illness throughout the project. There was found to be an increase in the proportion of students who were willing to seek help from professional sources, but no change was found in the proportion of students indicating that they used a range of coping styles.

The authors concluded that they were unable to address the issue of causality in terms of changes in students’ knowledge and attitudes as a result of the project. It appears, however, that changes in knowledge, attitudes, and behavioural intentions did not follow any particular trend. The authors argued that a number of beneficial outcomes of the project were identified. In particular, there had been uptake of at least part of the curriculum components in all schools, and the implementation of the program had been supported by the participating schools. They stated that the pilot project had been most successful in schools where there was support from the school executive.
and the school community, and recommended that the implementation model be used for future projects.

An earlier evaluation of school-based mental health education looked at the School Education Program (SEP) – now known as Mental Illness Education – Australia (MIE-A) - which was an initiative of the New South Wales branch of the Association of Relatives and Friends of the Mentally Ill (ARAFMI) (Wearing and Edwards 1994). The aim of the SEP was to educate school students nationwide about mental health and mental illness, in order to improve understanding and reduce fear and ignorance of mental illness among young people and their families. The program, which began in Sydney in 1988, received funding from the Australian Youth Foundation in 1992 to extend its activities nationwide, and had commenced in other states by 1994.

In contrast to the MindMatters program, the educational component of the SEP involved presentations given to school students by volunteers with experience of mental illness. Topics covered in the presentations included: definitions of mental illness, facts and statistics, community attitudes, personal experiences of mental illness, and a discussion of mental health resources available to students. A range of curriculum materials were developed to promote the program and to assist the classroom presentations. These included fact sheets, information packs for teachers, a video, and orientation kits to help with recruitment of volunteer presenters. Volunteers were trained in order to enhance skills in presentation techniques, as well as knowledge of mental illness, and presenters underwent ongoing review throughout the program. The program content and format were also revised and improved between 1992 and 1994, in order to focus more on the concept of the relationship between mental illness and mental health. In addition, a program for students from Non-English Speaking Backgrounds (NESB) was developed to address the particular needs of this audience.

The evaluation of the program aimed to assess the impact of the SEP on students. Surveys of students were conducted at two stages during the program. The first survey was undertaken prior to the education program, and involved 162 young people in the Sydney area. This results of this survey indicated that the vast majority of respondents (98%) had a medium level of general understanding of mental illness prior to the educational program. The authors also noted that 36% of participants reported previous contact with someone with a mental illness. A second survey was conducted nationwide after May 1994, however only 25 further responses were obtained in addition to the initial Sydney-based sample, and all of these were from students in Queensland. It was found that there were improvements in awareness of mental illness following the education program, and those with prior direct contact with mental illness were more likely to show improved attitudes following the program than those with no previous exposure. It is important to note, however, that measures of statistical significance of changes in knowledge were not provided.

The authors concluded that the SEP had been effective in generating greater awareness of mental illness among participants. They stated that the role of volunteer presenters was an important factor in the success of the program. The authors argued that there was a need to target the program to particular audiences, as the student population is diverse in terms of cultural and socio-economic backgrounds. They also stated that it was important to recognise when structuring the program that a
significant proportion of young people will have prior experience of or contact with mental illness. It is worth noting that, since the evaluation was conducted in 1994, the School Education Program (now MIE-A) has undergone considerable revision, and evaluations of the revised program are currently in progress in a number of Australian states and territories.

In the overseas context, a school-based program to improve understanding of mental health issues undertaken in a rural area of Pakistan found encouraging results (Rahman et al. 1998). The aim of the program was to improve the awareness of school students, as well as their parents, friends and neighbours, of issues relating to mental health and illness. Four schools were selected to participate in the study. Two of the schools were involved in the intervention program, and the remaining two schools acting as control groups. All four schools had similar characteristics in terms of size and socio-economic areas, and all were government run. Participants in the study were 100 school students (aged 12-16 years), 100 parents, 100 friends who did not attend school, and 100 neighbours.

The educational program was facilitated in each school by a mental health team comprising a doctor, a psychologist and a social worker. The teams first assessed each school’s educational facilities, as well as the knowledge, attitudes and behaviour of teachers with respect to mental health issues. Teachers attended training courses about mental health disorders, and collaborated with the mental health team in developing the educational curriculum for the school. Educational methods devised for the program included essay writing and poster competitions relating to mental health, and the production of short plays. During the program, teachers gave daily lectures about mental health issues to the students, and mental health posters were displayed in schools. The mental health teams also made weekly visits to the schools.

The evaluation involved an assessment of attitudes to and awareness of mental health issues before and after the school program. Participants were given a 19-item questionnaire designed to assess knowledge and attitudes to mental health disorders. A high score on the questionnaire indicated a high level of awareness of mental health issues. School students were administered the questionnaire in the classroom, and were then given three additional questionnaires in order to collect responses from a parent, a friend who did not attend school, and a neighbour. The questionnaire was given to all participants prior to the start of the school program, and again after completion of the program.

Prior to the beginning of the program, levels of awareness were found to be poor overall. Scores were particularly low for questionnaire items relating to traditional beliefs about mental illness. For example, respondents tended to agree with statements suggesting that people with a mental illness are dangerous, immoral and a ‘bad omen’ for the family. School students in both the control and intervention groups received similar scores on the questionnaire conducted prior to the beginning of the program. This was also true for parents and friends who completed the questionnaire, but the neighbours in the control group received slightly lower scores than neighbours in the intervention group.

All intervention groups showed improvement in scores in every item after the program, with the most significant change occurring in the school students who took
part in the program. Students in the intervention group scored significantly higher on the questionnaire at the completion of the program than students in the control group. In addition, parents, friends and neighbours of participants in the program all scored higher than their counterparts in the control group. Although there was some improvement in scores in the control groups of school students and their friends, this was a much smaller change than that of the intervention group.

The authors stated that there was a significant improvement in participants’ awareness of issues relating to mental health and illness following the four-month education program. There was also found to be a significant improvement in the awareness of their parents, friends and neighbours, however this change was less marked than that of the school students who participated in the program. By comparison, only a minor change in awareness was detected in the control groups throughout the study. The authors concluded that the school program had been successful in improving mental health awareness of the school students and their local community, and stated that this model may be appropriate for other communities. They acknowledged, however, that no long-term follow-up had been attempted, and they were therefore unable to demonstrate a sustained change in attitudes or behaviour.

Esters, Cooker and Ittenbach (1998) similarly studied the impact of a mental health education program on the knowledge and attitudes of rural adolescents, this time in Mississippi. The study involved 40 students from a rural high school who were placed into either an intervention or control group. The education program was presented to the 20 students in the intervention group over three days. The program involved the use of an educational video targeted to adolescents. Information was also provided about sources of help in the community, including the definitions and qualifications of different mental health workers, and there was discussion of the stigma associated with mental illness. The control group attended regular classes, which did not cover topics related to mental health issues.

The study involved the measurement of knowledge and attitudes relating to mental illness prior to the education program, and on two occasions following the program. Participants were given the Opinions about Mental Illness Questionnaire to measure perceptions about mental illness, and the Fischer-Turner Pro-Con Attitude Scale to measure attitudes to seeking help for mental health issues.

The results of the study were that the knowledge and attitudes of the intervention group improved following the education program, and these changes were statistically significant. It was also found that the changes were maintained at the three-month follow-up survey. By comparison, the control group did not show any significant changes on the questionnaire scores throughout the study. The authors concluded that the intervention had successfully altered the participants’ knowledge of mental illness and attitudes to seeking help for mental health problems. They argued that such changes in attitudes were important in encouraging appropriate help-seeking behaviour.

Similar results were obtained by Battaglia, Coverdale and Bushong (1990) in their study of a school program coinciding with Mental Illness Awareness Week. The aim of the study was to measure participants’ attitudes to seeking help for mental health problems, and to measure their interest in receiving information about mental health
issues. The program comprised mental health information sessions presented to students at a number of public schools. Presentations were given by psychiatric physicians, and covered topics including psychiatry, depression, suicide, and drug and alcohol issues. Twenty physicians from the psychiatry program at the University of Texas were selected to give the presentations, and attended training sessions in preparation. Presenters were also provided with manuals detailing available youth services, which were distributed to the participating schools.

Participants in the program were 1,380 students from ten different schools who attended a 45-minute presentation and who subsequently completed questionnaires. A further 280 students selected from the same schools who did not attend the presentations comprised the comparison group. Of those who took part in the program, 57% indicated that they liked the presentation very much, and 69% found that it was helpful. Similar numbers of students in both the intervention and comparison groups indicated that they had previously received talks about mental health issues at school, with just over one-third indicating that they had been presented with a talk about psychiatrists and approximately half reporting that they had received information about depression and suicide. Attitudes to mental health professionals were generally positive in both intervention and comparison groups, however those in the intervention group expressed more positive attitudes than those in the comparison group. In addition, those who had previously received information at school about psychiatrists were more positive than those who had not.

When asked about attitudes to help-seeking, those who had previously received information about mental health issues were more likely to report that they would seek help for mental health problems than those who had not received such information. Out of all participants who indicated they had previously received mental health information at school, those in the intervention group were more likely than those in the comparison group to report that they would seek help for mental health problems. An additional finding was that students in higher grade levels were significantly less likely to report that they would seek help. Just over two thirds (68%) of participants in the intervention group indicated that they would like to receive further information about mental health issues, compared with 58% of the comparison group.

The authors concluded that the school presentations had a positive impact on participants’ attitudes to mental health professionals and to seeking help for mental health problems. This is consistent with the finding of Esters, Cooker and Ittenbach (1998) that the presentation of mental health information to school students was associated with more positive attitudes to seeking help. However, the authors of the current study acknowledged that they were unable to determine whether positive attitudes were maintained in the longer term.

**People from non-English speaking backgrounds**

A pilot study of the impact of a mental health literacy program targeted to people from particular non-English speaking backgrounds was conducted as part of the Defeat Depression campaign in the UK (Bhugra, Baldwin and Desai 1997). The aims of the study were to determine whether the provision of fact sheets could improve knowledge about depression, and to investigate the impact of participation in a discussion group about depression.
The study involved the use of educational fact sheets produced in several languages: Hindi, Punjabi, Gujarati, Bangla and Chinese scripts. The aim of the fact sheets was to provide information about depression to the lay public, including descriptions of symptoms, causes and treatment of depression. Participants in the study were people who attended a ‘drop-in centre’ in an area of West London, all of whom identified themselves as originating from the Indian subcontinent. Of the 24 individuals who attended the centre, 22 agreed to participate in the study. The sociodemographic characteristics of those who agreed to take part in the study were found to be similar to those of the individuals who declined to participate.

The study involved the use of the Depression Knowledge Questionnaire, which was adapted from a questionnaire developed for use in the Defeat Depression campaign population surveys (Priest et al 1996). Participants were asked to complete the questionnaire about knowledge of depression at the beginning of the study. Fact sheets were then distributed to each participant in their preferred language, and questionnaires were re-administered following the presentation of the educational information. This stage of the study was then followed by a twenty-minute discussion about depression between the researchers and the participants, and questionnaires were then administered for a third time following the discussion group.

Of the 22 participants, 21 provided complete sets of data for the study. Only these 21 data sets were included in the analysis of results of the study. Participants ranged in age from 30 to 71 years, and the majority (12 participants) were women. The results of the questionnaire administered to participants at the beginning of the study were compared with those obtained in a survey of the general population conducted for the Defeat Depression campaign (Priest et al 1996; Paykel et al 1998). It was found that there were some differences in responses to the questionnaire between the study group and the general population. For example, only 52% of study participants agreed that ‘depression is a medical condition like any other’, compared with 73% of the general population. The authors stated that this finding was expected, as previous surveys of people from similar cultural backgrounds to the study group had shown that they did not tend to have a medical model and explanation for the concept of depression.

After the presentation of the educational fact sheets, it was found that there was some improvement in knowledge of depression among study participants. An example of this was an increase in the proportion of participants who agreed that depression was like any other medical illness from 52% at baseline to 66% following presentation of the fact sheets. Participants’ views about treatment of depression also changed during the study. The proportion of participants who agreed that anti-depressant drugs should be offered as treatment for depression increased from 38% at baseline to 67% after reading the educational information. It was also found that changes in knowledge were generally maintained or improved following the discussion group. However, it is unclear from the analysis of the data if the observed changes were statistically significant, particularly given the small sample size.

The authors concluded that the provision of educational fact sheets in appropriate languages had improved knowledge of depression among individuals from non-English speaking backgrounds. They also stated that small-group discussions could enhance changes in knowledge. They noted, however, that the study had been unable
to indicate whether such changes were maintained over time. It was also concluded that there was a need to identify appropriate concepts and explanations of depression for different cultural groups when developing future targeted programs.

**Methodological issues**

Research investigating programs targeted to carers and families of people with mental illness raised several methodological issues. In their respective studies of mental health education programs for caregivers, Raskin et al (1998) and Pickett-Schenk, Cook and Laris (2000) did not use a control groups for comparison with the intervention group. In addition, participants’ levels of mental health literacy were not measured prior to the program; therefore neither study was able to demonstrate that there were changes in knowledge or attitudes over the course of the intervention.

Raskin et al (1998) stated that measuring the impact of an educational program targeted to caregivers was an important aim of their study, however the study design was not appropriate to determine whether the program actually resulted in improvements in knowledge. Although the findings indicated that there were improvements for the residents who were being looked after by the caregivers, it is unclear whether this was a direct impact of the program, or whether other factors may have been involved. The study by Picket-Schenk, Cook and Laris (2000) of the Journey of Hope program relied on self-report of changes in knowledge, therefore it is not known whether such changes actually occurred, and whether any reported changes were due to participation in the program. It is also important to note that the response rate to the survey was quite low (39%), and it is possible that those who did not respond to the survey may have expressed different opinions about whether the program outcomes had been achieved. The authors stated that a before-and-after study design, with pre-test and post-test measures, would be needed to determine whether the program outcomes were achieved. Given these limitations, it is unclear to what extent the positive results reported in either study were actually achieved among study participants.

Solomon et al (1996) used a randomised controlled trial study design to compare the impact of two different educational interventions. This design does not share many of the weaknesses of other studies of similar programs. It was possible in this study to demonstrate the positive effects of the interventions, compared with a control group who did not receive an intervention over the study period. Leff et al (1982; 1985) similarly conducted a randomised controlled trial, and concluded that their study had found a positive impact on the level of relapse for participants as a result of a social intervention. Although the intervention and control groups were not entirely similar, the authors stated that when the sample of participants was stratified by demographic characteristics, no significant associations were found between these characteristics and observed outcomes. However, the authors acknowledged that they could not determine whether the impact of the intervention was due to the components of the intervention itself, or to the increased attention given by professional staff to families in the intervention group, as those in the control group did not receive the same level of contact. They acknowledged that there are difficulties in providing placebos for social interventions, and recommended that further research was necessary to determine the impact of the specific aspects of such interventions.
This limitation was overcome to some extent by Smith and Birchwood (1987), who examined whether educational information itself had any impact for families, rather than the increased involvement of professional staff. They compared two different interventions, and found that both the educational information and the context of its delivery contributed to changes in knowledge. Berkowitz et al (1984; 1990) were also able to measure the impact of the educational component of a program. However, the study did not involve the use of a separate control group for comparison with the educational intervention, and the authors acknowledged that the numbers of participants in the two social intervention groups may have been too small for meaningful analysis of the impact of the interventions on knowledge.

This issue was also raised by Bhugra et al (1997), who acknowledged that the small sample size included in their study was an important limitation. The study also did not involve a control or comparison group, and it is unclear whether the participants were a representative sample of the particular cultural groups targeted by the program. As this was a pilot study, the conclusions provide an indication only, and given the study’s limitations any findings may not be generalisable to other populations and settings. It is important for similar studies to be conducted on a larger scale to confirm the findings. In particular, future studies should consider whether any observed changes are maintained in the longer-term.

Studies investigating the impact of school-based programs for adolescents also raised particular methodological issues. In particular, the evaluation of the MindMatters project faced a number of significant limitations (MindMatters Evaluation Consortium 2000). The study did not involve the use of comparison schools, and the authors acknowledged that true baseline data from the intervention schools could not be obtained, as many of the schools had commenced the program prior to the first round of data collection. Several schools were unable to provide complete sets of responses to all three questionnaires, which made comparison between overall baseline and follow-up data difficult to achieve. In addition, each school adopted a different approach to implementation of the program, and therefore participants at different schools received different interventions. As a result of the methodological limitations of the study, the authors were unable to address the issue of causality in relation to changes in knowledge and attitudes. It is clear that further evaluation would be required to determine the impact of the program.

Similarly, the evaluation of the School Education Program (SEP) was unable to provide adequate information about whether the program had resulted in changes in knowledge and attitudes (Wearing and Edwards 1994). The authors of the evaluation acknowledged that the sample was not representative of the participants in the program, particularly in the second phase of the evaluation, which obtained a response rate of only 10%. They were also unable to determine whether changes in awareness of mental illness identified in the study were statistically significant, and stated that the surveys were insufficient to detect changes in attitudes and knowledge. As this was one of the important aims of the evaluation, the inability of the study to measure such changes is a significant limitation of this particular study.

Unlike the MindMatters and SEP evaluations, the study by Esters, Cooker and Ittenbach (1998) used a concurrent control group. Although the study did not involve randomisation of participants into treatment and control groups, it was found that the
baseline questionnaire scores were similar for both groups. Battaglia, Coverdale and Bushong (1990) similarly did not use randomisation in their study, and it is also important to note that participants’ attitudes were not measured at baseline. It is therefore unclear whether both groups in this study held similar attitudes prior to the intervention. The authors acknowledged that the less positive attitudes to psychiatrists expressed by the comparison group may have been due to prior negative bias amongst the students who did not attend the presentations. The groups also had different characteristics in terms of grade levels, and the comparison group was much smaller than the intervention group, which meant that certain sub-groups were too small for meaningful comparison.

**Summary**

Overall, the literature suggests that programs targeted to specific groups within the population can improve levels of mental health literacy. It is important to note that there were significant methodological limitations associated with many of the studies reviewed in this section, and the generalisability of the findings is limited. The strongest evidence perhaps relates to the impact of educational interventions for families of people with schizophrenia. In addition to changes in knowledge and attitudes, the literature indicates that programs targeted to carers and families of people with mental illness may result in improved outcomes for mental health consumers, however it is unclear whether such effects may be maintained in the longer term.

Evaluations of school-based programs targeted to adolescents generally found improvements in terms of awareness and attitudes relating to mental health issues. While these results may be considered encouraging, it should be noted that the evaluations of both the MindMatters curriculum and the School Education Program in Australia were unable to address adequately the issue of changes in participants’ levels of mental health literacy.

The nature of the literature indicates that there is a need for further evaluations of programs targeted to subgroups of the population, particularly in the Australian context. It is clear that there are various groups within the community who may benefit from targeted mental health literacy programs, however there is little literature addressing the issue of effectiveness of such programs at present. It is particularly important that programs currently underway or in development undergo systematic evaluation, in order to extend the evidence base in this area.
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<th>Investigators</th>
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<th>Key Findings</th>
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<tr>
<td>Pickett-Schenk, Cook and Laris (2000)</td>
<td>Carers and families</td>
<td>Post-test only study with no concurrent controls</td>
<td>United States</td>
<td>Evaluation of the Journey of Hope mental health education program, targeted to families of people with mental illness. Questionnaires given to participants after the program to determine whether program outcomes had been achieved. A total of 424 out of 1,131 participants (39%) responded to the questionnaire.</td>
<td>The program comprised an eight-week education course and a long-term support group, and was designed to provide education and skills to primary caregivers. Participants were not required to attend both parts of the program. The education course and support groups were conducted by volunteer family members of people with mental illness who received training from the National Journey of Hope Institute.</td>
<td>The majority of respondents reported that the program had improved their knowledge and overall morale</td>
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Table 2 – Programs targeted to particular populations
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<td>Leff, Kuipers, Berkowitz, Eberlein-Vries, and Sturgeon, D (1982)</td>
<td>Carers and families</td>
<td>Pre-test/post-test study with randomisation of controls (randomised controlled trial)</td>
<td>United Kingdom</td>
<td>Brief educational program and longer term support group provided to families of 24 people with schizophrenia. Participants were randomly assigned to intervention and control groups. Measurements of relapse rates were taken immediately after the intervention and again at two-years follow-up.</td>
<td>The social intervention involved a short-term educational program, a support group for relatives, and family sessions held in the home. The educational component comprised two sessions, and provided information about the causes, symptoms, prognosis and management of schizophrenia. The program was conducted over nine months.</td>
<td>• Relapse rates for symptoms of schizophrenia were significantly lower in the intervention group than in the control group</td>
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| Berkowitz, Eberlein-Freis, Kuipers and Leff (1984) | Carers and families | Pre-test/post-test study with comparative design and randomisation into two intervention groups | United Kingdom | An educational program was conducted involving 33 participants from 23 different families of people with schizophrenia. Participants were later randomly allocated to one of two social intervention groups. Interviews were conducted prior to and following the education program, and at nine-months follow-up. | The educational component comprised four brief presentations given by mental health professionals covering causes, symptoms, diagnosis, treatment and course of schizophrenia. The content of the educational program was the same as in an earlier study by Leff et al (1982), however the information was presented in a more personal manner. Participants received the information in their homes, and each family was given the presentations separately. | • After the education program there were significant increases in participants’ knowledge about their relative’s diagnosis of schizophrenia.  
• After nine months significantly more participants stated that schizophrenia could be inherited, attitudes to the ill relative had improved, and there was increased optimism for the future of ill relatives.  
• There were no significant differences in knowledge between participants in the two social intervention groups. |
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| Smith and Birchwood (1987) | Carers and families | Pre-test/post-test study with comparative design and randomisation into two intervention groups | United Kingdom | Educational intervention given to 23 families of people with schizophrenia. Participants were randomised into two intervention groups. Measures of knowledge and other effects on the family were taken at baseline, immediately post-intervention, and at six-months follow-up. | Participants were randomly assigned to one of two intervention groups. The first group, the ‘group condition’ intervention, received four educational sessions over a four-week period. Sessions included oral and audiovisual presentations, as well as general question and answer discussions. Participants also received information booklets and a written homework exercise. The second group, the ‘postal condition’ intervention, received only the information booklet and homework exercise through the post each week over the four-week period. Information given to both groups comprised: concepts and causes of schizophrenia, symptoms of schizophrenia, treatments and prognosis, and hospital and community resources. | • There were significant increases in knowledge after the program which were maintained at six-months follow-up  
• The use of group educational sessions enhanced the acquisition of knowledge among participants  
• There were reductions in levels of stress and fear which were not maintained after six months |
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| Solomon, Draine, Mannion and Meisel (1996) | Carers and families | Pre-test/post-test study with two intervention groups and randomisation of controls (randomised controlled trial) | United States | Study of a program comparing two psychoeducational strategies. Participants were 225 relatives of people with severe mental illness, who were randomly allocated to one of three groups: individual family consultation, group family psychoeducation, or a ‘waiting list’ (control group). Interventions were conducted over three months, and participants were surveyed prior to and following the intervention period. | The program involved two different psychoeducational interventions: group psychoeducation and individualised consultation. Individual family consultation involved between six and fifteen hours of educational assistance provided by a specialist consultant to either the whole family or one family member. Group family psychoeducation comprised ten two-hour sessions, which were delivered to participants in eleven separate groups, and were facilitated by trained mental health specialists and peer consultants. | • There was a significant improvement in participants’ levels of self-efficacy associated with the two interventions.  
• Individual consultation was more useful than group psychoeducation for those who had previously attended family support groups. |
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| Mannion, Mueser and Solomon (1994) | Carers and families | Pre-test/post-test study with no concurrent controls | United States | A total of 34 participants took part in a psychoeducational program designed for spouses of people with mental illness. Questionnaires were administered pre-test, post-test and at one-year follow-up. 19 of the participants (68%) completed questionnaires prior to and immediately following the program, and 10 (53%) completed the one-year follow-up assessment. | A group psychoeducational program for spouses was developed following collaboration between mental health professionals and spouses. It comprised ten two-hour sessions conducted over consecutive weeks. A mental health professional and a trained family member facilitated each session. Sessions involved a 30-minute oral presentation, a 90-minute discussion of coping skills, role-play exercises, written material and homework tasks. | • The program was effective in improving participants’ knowledge and coping skills, while reducing levels of distress and negative attitudes to the ill spouse.  
• Levels of personal distress were significantly associated with attitudes to the ill spouse.  
• Improved knowledge and coping skills were not associated with changes in distress and attitudes. |
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| Raskin, Mghir, Peszke and York (1998) | Carers and families | Pre-test/post-test study with no concurrent controls | United States | Education program targeted to caregivers of elderly people with mental illness living in community residences. Information about the elderly residents involved in the study was collected prior to and following the program. Participants were surveyed following the program in order to determine its usefulness. | The education program comprised two two-hour presentations conducted over two weeks. Presenters included mental health and allied health professionals. Information was provided about causes, symptoms and treatment of major mental illnesses, and the provision of support and care for the elderly residents. An information manual was provided, giving an overview of symptoms and treatment of mental illness, focusing on issues relating to the elderly. | • The majority participants indicated that they found the program helpful  
• There was a significant decrease in the number of hospital admissions for the elderly residents in the twelve months following the program |
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| MindMatters Evaluation Consortium (2000) | Adolescents       | Pre-test/post-test study with no concurrent controls | Australia | Pilot mental health promotion program undertaken in 24 secondary schools nationwide. Project involved curriculum resources and ‘whole-school’ approach to mental health promotion. Students were given Knowledge and Attitude questionnaire on three occasions throughout the program. | Prior to the program, professional development activities introduced the concepts of Health Promoting Schools and MindMatters. Schools established a ‘core team’ to plan and implement the project. Each school conducted an audit of current mental health curriculum and activities, and utilised MindMatters resources to develop appropriate strategies. Each school adopted at least one of the curriculum units: enhancing resilience, understanding mental illness, bullying and harassment, and loss and grief. Whole-school strategies were also undertaken, e.g. youth forums, and mental health days. Schools were encouraged to form partnerships with community organizations to enhance the whole-school approach. | • There was a wide uptake of the curriculum resources within the schools, and less activity in relation to other aspects of the project.  
• There were some negative changes in knowledge about mental illness following the program, along with some positive changes in social distance attitudes and help-seeking intentions. |
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| Wearing and Edwards (1994) | Adolescents | Pre-test/post-test study with no concurrent controls | Australia | The School Education Program was delivered to students in Sydney, then in other states in Australia in 1994. A total of 162 students were surveyed prior to the program, and a further 25 were surveyed following the program in 1994. | The educational component was presented to school students by volunteers with experience of mental illness. Topics covered in the presentations included: definitions of mental illness, facts and statistics, community attitudes, personal experiences of mental illness, and a discussion of mental health resources available to students. Curriculum materials were developed and these included fact sheets, information packs for teachers, a video, and orientation kits for volunteer presenters. Presenters were trained in order to enhance skills in presentation techniques, as well as knowledge of mental illness. The program was revised and improved between 1992 and 1994, and a program for students from Non-English Speaking Backgrounds (NESB) was developed. | • There were some improvements in awareness of mental illness following the education program  
• Prior contact with mental illness was associated with improved attitudes following the program |
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<tr>
<td>Rahman, Mubbashar and Goldberg (1998)</td>
<td>Adolescents</td>
<td>Pre-test/post-test study with non-randomisation of concurrent controls</td>
<td>Pakistan</td>
<td>Mental health education program undertaken at two schools in a rural area, with two similar schools acting as controls. Participants were 100 students, their parents, friends and neighbours, who were given a questionnaire prior to and following the program.</td>
<td>The educational program was facilitated in each school by a mental health team. Teachers attended training courses about mental health disorders, and collaborated with the mental health team in developing the educational program for the school. Educational activities included essay writing and poster competitions and the production of short plays. Teachers provided daily lectures about mental health issues to the students. Mental health posters were displayed in schools. The mental health teams made weekly visits to the schools.</td>
<td>• Participants who received the education program showed improved awareness of mental health issues following the program, and this change was greater than that of control participants • Parents, friends and neighbours of participants in the program also showed improved awareness of mental health issues</td>
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| Esters, Cooker and Ittenbach (1998) | Adolescents | Pre-test/post-test study with non-randomisation of concurrent controls | United States | A mental health education program was presented to 20 students at a rural high school. A second group of 20 students acted as a control. Participants completed questionnaires to measure attitudes and knowledge at baseline, immediately following the intervention, and again after three months. | The education program was presented to the intervention group over three days. The program involved an educational video targeted to adolescents. Information was also provided about sources of help in the community, including the definitions and qualifications of different mental health workers, and there was discussion of the stigma associated with mental illness. | - There was a significant improvement in attitudes and conceptions of mental illness in the intervention group following the education program, which was maintained after three months  
- The control group did not show any significant change in knowledge and attitudes |
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<td>Battaglia, Coverdale and Bushong (1990)</td>
<td>Adolescents</td>
<td>Post-test only study with non-randomisation of concurrent controls</td>
<td>United States</td>
<td>Mental Illness Awareness Week presentations were given by mental health professionals to 1,380 high school students. A comparison group of 280 students did not attend the presentations. Participants completed questionnaires about attitudes following the presentations.</td>
<td>Mental health information sessions were presented to students at a number of public schools to coincide with Mental Health Awareness Week. The 45-minute presentations were given by psychiatric physicians, and covered topics including psychiatry, depression, suicide, and drug and alcohol issues. Presenters attended training sessions in preparation. Schools were also provided with manuals detailing available youth services.</td>
<td>Participants in the intervention group reported more positive attitudes to mental health professionals and to help-seeking than those in the comparison group</td>
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| Bhugra, Baldwin and Desai (1997) | Non-English Speaking Backgrounds | Pre-test/post-test study with no concurrent controls | United Kingdom | A pilot study was conducted targeted to people from non-English speaking backgrounds involving educational fact sheets about depression. Participants in the study were 22 individuals from the Indian subcontinent. Participants were surveyed about knowledge of depression immediately prior to and following presentation of written information about depression, and again immediately following a group discussion. | Educational fact sheets about depression were produced in several different languages as part of the Defeat Depression campaign conducted from 1991-1996. Participants in this study were presented with the fact sheets in their preferred languages, and a follow-up discussion about depression was conducted involving the researchers and study participants. | - Participants’ knowledge of depression prior to the study differed from those of the overall population  
- There were positive changes in knowledge of depression immediately following presentation of written information.  
- Improvements in knowledge were consolidated by a group discussion about depression |
4. Health communication campaigns

In contrast to the relatively limited amount of literature addressing mental health literacy programs, there is a vast literature relating to public health information campaigns. Much theoretical literature is devoted to the topic of effectiveness of health communication strategies. This section summarises what has been learned from the research literatures on communication campaigns that may inform mental health literacy programs.

Generalisations and guidelines from the communication campaign literature are examined. Critical comments about current communication campaign practice, and the dominant underlying theoretical model, are then offered. Fundamental differences between advertising and health communication campaigns are then discussed to place the previous discussion in context and to provide advice for communication planners. Drawing primarily on risk theory, and the environmental research literature, a differing paradigm for conceptualising communication campaigns and risk is discussed that could be used to complement traditional practices and evaluation research. In many cases, it is a model that describes current practice where mass media campaigns are combined with direct interventions at local or community levels.

An overview of selected systematic reviews of communication campaigns that may be relevant to mental health literacy are examined in Appendix 1 of this report. While it is beyond the scope of this review to provide an in-depth analysis of all the literature in this area, it is desirable to provide an overview of some of the key studies and theoretical literature relating to effective public health information approaches.

Overview of the Communication Campaign Literature

Communication campaigns involving diverse topics and target audiences have been conducted for decades. Hyman and Sheatsley’s (1947) synthesis, ‘Some reasons why information campaigns fail’ is an early landmark in the literature. It is important to investigate how the history of campaign experience and evaluation research may inform mental health literacy programs.

The seminal synthesis of campaign research by Rogers and Storey (1987) is a useful departure point. (See also Pettegrew and Logan 1987). Rogers and Storey (1987) note that there is evidence that communication campaigns can be effective under certain conditions for specific audiences, but that years of campaign experience suggest many failures and unrealistic expectations about possible outcomes. The review of the literature relating to mental health literacy programs clearly demonstrates this point.

Rogers and Storey (1987) observe that in the modern communication campaign, modest changes in audience behaviour are frequently achievable, and it is important for the campaign planner to set modest and realistic expectations about what can be achieved. They argue that a health promotion campaign might be considered successful or effective if about five percent of the target (or segmented) audience does adopt measurable changes in health behaviour over the longer-term.
In this context, it is important to define a communication campaign. It should be noted that the word communication is used to highlight the fact that not all campaigns necessarily involve mass media messages, or mass media messages in isolation, and that communication campaigns may be small-scale in scope and audience reach.

There is often confusion between the labels campaign, communication campaign or program, media or mass media campaign, and intervention. No particular definition adequately covers current practice, and there are many local variations of what is meant by these labels. Indeed, a variety of definitions exists in the literature but the following elements of a communication campaign are essential (Rogers and Storey 1987).

Firstly, a campaign is purposive. The specific outcomes can be extremely diverse ranging from individual level cognitive effects to societal or structural change.\(^1\) Secondly, a communication campaign is aimed at a large audience. Rogers and Storey (1987) note that ‘large’ is used to distinguish campaigns from interpersonal persuasive communications by one individual (or a few people) aiming to seek to influence only a few others.

Thirdly, communication campaigns have a specified time limit. This is not to state that all campaigns are short lived. For example, the initial Stanford Heart Disease Prevention Program ran for three years from 1972 to 1975, however follow-up investigations were conducted over decades (Pettegrew and Logan 1987).

The fourth point is that a communication campaign comprises a designed set of organised activities. This is most evident in message design and distribution. Messages are organised in terms of both form and content, and responsibility is taken for selecting appropriate communication channels and media. As Rogers and Storey (1987) point out, even those campaigns whose nature or goal is emancipation or participation involve organised message production and distribution.

In summary, the term communication campaign implies that:
- it is planned to generate specific outcomes;
- in a relatively large number of individuals;
- within a specified time period; and
- uses an organised set of communication activities.

It is this latter element – an organised set of communication activities – that is the focus of this section.

**Rogers and Storey’s Campaign Generalisations**

In their extensive literature review, Rogers and Storey (1987) trace the history of communication campaigns, and offer a set of generalisations based on campaign research and evaluation. Many of the findings of the present literature review can be directly related to these generalisations.

An important component of the generalisations comes from analysis of multi-faceted cardiovascular risk reduction campaigns that have involved extensive tests of the

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\(^1\) See also Bauman (2000).
impact of mass media messages on health behaviours. For example, four American states, as well as Finland, Australia, Switzerland, South Africa and Germany (Farquhar 1983) have conducted well-evaluated heart disease prevention campaigns. The Stanford Heart Disease Prevention program is perhaps the best known. From 1972 to 1975, three communities in California participated in the campaign. Results showed that in the ‘media only’ community and the ‘media plus intensive face-to-face intervention’ community there were significant reductions in multi-faceted cardiovascular risk factors, such as weight reduction, cessation of cigarette smoking, and lowering of cholesterol levels and blood pressure, compared with the ‘no treatment’ community.

Stanford University’s ‘Five Cities Project’ (Farquhar, Maccoby and Solomon 1984) built on this previous experience and used larger communities, as well as broader target audiences. Participants in the project were monitored over eight years, with the aim of developing an exemplar for other communities. The ‘Minnesota Heart Health Project’ (Pavlik et al 1985) showed that campaigns promoting increased physical activity might be more salient than anti-smoking or other behaviour-cessation campaigns (Pettegrew and Logan 1985). Pavlik et al (1985) also showed that, sometimes, relatively inexpensive media, such as pamphlets, brochures and specialised publications, can be very effective in increasing knowledge about heart disease prevention.

Pettegrew and Logan (1987) conclude that, in contrast to anti-smoking and alcohol and other drug campaigns, the cardiovascular risk reduction campaign evaluations suggest that the mass media can be unilaterally effective in influencing awareness, attitudes and behavioural changes.

Analyses conducted by Rice and Atkin (1989) and by Pettegrew and Logan (1987) support the following generalisations by Rogers and Storey (1987). In a very real sense, these generalisations should be considered as guidelines for communication campaign planners.

1. Widespread exposure to campaign messages is a necessary ingredient in a campaign’s success.

2. The mass media can play an important role in creating awareness and knowledge, in stimulating interpersonal communication, and in recruiting individuals to participate in campaign activities.

3. Interpersonal communication through peer networks is very important in leading to and maintaining behaviour change.

4. The perceived credibility of a communication source or channel enhances the effectiveness of a communication campaign.

5. Formative evaluation is as important as summative evaluation following the conclusion of the campaign.

Formative research involves evaluating aspects of the campaign, especially message design and audiences understandings, in the
planning stages. This work can improve the effectiveness of campaigns by producing messages that are specific to the desired behavioural change. The development of the American educational television series, *Sesame Street*, is a classic example in the research literature (Lesser 1974).

6. Campaign appeals that are socially distant from audiences are not effective.

7. Campaigns promoting prevention are less likely to be successful than those with immediate positive consequences.

8. Audience segmentation strategies can improve campaign effectiveness by targeting specific messages to particular audiences.

9. Timeliness and accessibility of media and interpersonal messages can contribute to a campaign’s success.

**Bauman’s Precepts and Principles**

Similarly, Bauman (2000) offers a set of guidelines, which he characterises as precepts and principles for campaign planners. These are focused on best practice and grounded in both campaign experience and evaluations of mass media health campaigns. His position provides support for Rogers and Storey’s (1987) meta-analysis of the research literature.

Firstly, Bauman distinguishes media campaigns from ad hoc health advocacy that may involve the mass media. Media campaigns, he says, are purposive and organised interventions. His guidelines, or precepts and principles, include the following points:

1. Message development should be an integral component of the campaign. As Rogers and Story (1987) note, formative research is as important, if not more important, than summative evaluations after a campaign.

2. ‘Process monitoring’ (process evaluation) is essential. This involves detailed assessment of each part of the campaign’s implementation, providing essential data on message production and dissemination, and audiences’ responses.

3. Development of appropriate outcomes is essential. As Bauman (2000) says: ‘Campaign planners should be clearly focused on the exact outcomes that are feasible, achievable and measurable’.

4. Measurement of carefully defined outcomes is essential (i.e. summative evaluation).

5. Research designs should include adequate resources and methods to achieve useful campaign evaluation. As the earlier literature review of mental health literacy programs demonstrated, valid and useful evaluations are not always conducted.

6. Bauman argues that, at a minimum, the evaluation budget (formative and summative) should be more than 15 per cent of the total budget.
7. The ‘hierarchy of effects’ matrix developed by McGuire (1989) is a useful guide to planning media roles in a campaign.

Briefly, McGuire proposed that only about 50 per cent of an audience will recall the media message, about half of those will understand the message, half again will accept it as relevant, half again will shift attitudes, half of those will adopt the new behaviour, half will trial it, and half again will maintain the new behaviour. Thus, the role of the mass media is more likely to be effective in increasing salience of a campaign message rather than achieving behavioural changes.

As Rogers and Story (1987) note, long-term behavioural change induced by mass media messages alone is unlikely to be successful.

8. Mass media messages in isolation usually achieve little, therefore other supportive interventions are essential. These may involve direct, personal interventions.

Rogers and Storey (1987) make similar observations in their review of the research literature. Effective mass media campaigns need to be supported by other direct interventions.¹

9. Over-time monitoring of linked or similar campaigns is important in assessing the longer-term effectiveness of campaigns. It is important to determine whether repeated campaigns are achieving net gains, maintaining the status quo, having no effect, or in fact having a negative effect.

10. Clear frameworks for evaluation should be set by both state and federal governments to remove or, at least, to reduce any day-to-day politics from evaluation and policy-making.

11. Dissemination of campaign evaluation results is vital to enable others to learn from previous campaign successes and failures.

Bauman also briefly discusses the use of so-called social marketing techniques where a specific campaign attempts to apply a brand to a particular message. The ‘QUIT’, ‘Active Australia’ and ‘Eatwell Australia’ campaigns are examples of this strategy.² Kotler and Roberto (1989) in particular are strong advocates of the social marketing approach. It is perhaps important to discuss in a wider context the significant differences between advertising and health communication campaigns. The following discussion, designed to inform future mental health literacy campaigns, focuses on planning realistic expectations rather than relying on the practices and theories about commercial advertising.

¹ A simple illustration of this approach comes from the staff-dining hall at Stanford University, home of the Stanford Heart Disease Prevention Program, where, many years ago, the menu included data on fat and cholesterol levels for all food items. This practice is now commonplace for food items in supermarkets.
² For a discussion of social marketing, see also Nutbeam and Harris 1998, and Kotler and Roberto 1989.
Advertising and Communication Campaigns

Elliott (1987), one of Australia’s leading communication practitioners, offers a particularly informative look at the differences between advertising and communication campaigns. His literature review and analyses of campaigns are especially relevant because they are based largely on experience. He defines a set of parameters for considering and planning for a campaign’s realistic outcomes.

Elliott’s (1987) basic premise is that the objectives and processes that are appropriate for commercial advertising are usually inappropriate for health promotion. The paper in effect reconsiders Rothschild’s (1979) analysis. The essential differences between advertising and health campaigns lie in the nature of the product, the processes involved in promotion and, of course, in the nature of audiences. Elliot argues that advertising by itself will not result in fundamental changes in behaviour. He quotes Palyer and Leathar (1981):

Commercial products are regarded by many as trivial and superficial, not as central and ego-involving to the individual as ill health. They are positive and attractive and can be relatively easily obtained. By contrast, health publicity is largely negative: it preaches the avoidance of something negative (which is enjoyable), often involving short-term unpleasantness, for the sake of benefits that are long-term, probabilistic and not guaranteed.

Elliott (1987) draws on previous research to demonstrate once again that advertising does not have massive effects on potential consumers, as many might believe. However, he notes that small changes in market share for a particular product that are achieved as a consequence of advertising may result in greatly increased sales and profits. In this regard, it is useful to recall Rogers and Storey’s (1987) assertion that a health promotion campaign might be considered successful if five percent of the target audience make long–term changes in overt health behaviour.

Commercial advertising techniques are but one element of a communication campaign using mass media. The following table, comparing communication campaigns and advertising, has been constructed from Elliott’s (1987) literature review and critical analyses.

**Table 3 - Comparison of communication and advertising campaigns**

<table>
<thead>
<tr>
<th>Typical Communication Campaign</th>
<th>Typical Advertising Campaign</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persuasive focus involving response shaping, reinforcement attitude change; behavioural change.</td>
<td>Focus on feelings and perceptions toward product. Not attitude change.</td>
</tr>
<tr>
<td>Difficult to specify individual desires and wants.</td>
<td>Based on the idea of satisfying desires and wants.</td>
</tr>
<tr>
<td>Designed to meet societal or individual needs in face of risk.</td>
<td>May be designed to create desire and need.</td>
</tr>
<tr>
<td><strong>Typical Communication Campaign</strong></td>
<td><strong>Typical Advertising Campaign</strong></td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>May not be in line with prevailing attitudes and opinions.</td>
<td>Plays on prevailing attitudes and opinions.</td>
</tr>
<tr>
<td>Usually against the tide of public opinion.</td>
<td>Tries to stay with the tide of public opinion.</td>
</tr>
<tr>
<td>Not usually seen as a personal benefit as such and may be designed to create a social benefit.</td>
<td>Usually, if not exclusively, a personal benefit.</td>
</tr>
<tr>
<td>Involves personal cost, sometimes even discomfort.</td>
<td>Cost is one of choice among competing brands.</td>
</tr>
<tr>
<td>Message is that all people should adopt or comply.</td>
<td>Products/services that are not accepted fail.</td>
</tr>
<tr>
<td>Often difficult to see short-term outcomes.</td>
<td>Easy to see, and outcomes can usually be quantified.</td>
</tr>
<tr>
<td>Reward difficult to see.</td>
<td>Reward easy to see.</td>
</tr>
<tr>
<td>People may express support for socially desirable behaviour but not adopt the behaviour.</td>
<td></td>
</tr>
<tr>
<td>Experience is the best way to change attitudes – not mass media.</td>
<td></td>
</tr>
<tr>
<td>Tries to define communication objectives as changes in individuals:</td>
<td>Market objectives often confused with communication objectives.</td>
</tr>
<tr>
<td>• Increased salience;</td>
<td>Focus on behavioural outcomes with intermediary objectives such as reinforcing loyal buyers’ beliefs, creating consumer satisfaction, maintaining brand salience.</td>
</tr>
<tr>
<td>• Strengthening or attitude change;</td>
<td></td>
</tr>
<tr>
<td>• More positive disposition to behave in a desired direction;</td>
<td></td>
</tr>
<tr>
<td>• Adoption of behaviour either in the short or long term;</td>
<td></td>
</tr>
<tr>
<td>• Awareness of unintended consequences.</td>
<td></td>
</tr>
<tr>
<td>May be very sensitive, obtrusive, and emotional.</td>
<td>May not involve great emotional or affective attachment.</td>
</tr>
<tr>
<td>Many times involves an organisational bias – in the ‘public service/interest’. Educational campaigns favoured even when evidence shows previous similar campaigns failed.</td>
<td>Campaigns that fail or result in loss lead to immediate action.</td>
</tr>
<tr>
<td><strong>Typical Communication Campaign</strong></td>
<td><strong>Typical Advertising Campaign</strong></td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Sometimes, objectives confused with education or mere dissemination of information.</td>
<td>All about excitement, sexuality, self-indulgence, and even power.</td>
</tr>
<tr>
<td>Organisation may constrain budget, processes and structure of the campaign.</td>
<td>Talks to the child in us.</td>
</tr>
<tr>
<td>Government equated to what ought to be done, what should be done, etc. It is the ‘parental’ mode.</td>
<td>Information often perceived to be unreliable because:</td>
</tr>
<tr>
<td></td>
<td>• Most groups perceive others as the problem or cause.</td>
</tr>
<tr>
<td></td>
<td>• Many see themselves compliant with the attitudes or behaviour, when they are not</td>
</tr>
<tr>
<td></td>
<td>• People seek justification for non-compliance and may give misleading information in any evaluation.</td>
</tr>
<tr>
<td>Information often perceived to be unreliable because:</td>
<td>Easy to get information about products and services. Yet, advertising does not work in the way that most people believe. Advertising does not have massive effects on people.</td>
</tr>
<tr>
<td>Some people have pre-existing beliefs or ideas about ‘communication’. Unrealistic expectations about what can be achieved.</td>
<td>Can be targeted to specific audiences or segments and expectations adjusted.</td>
</tr>
<tr>
<td>Often difficult to identify target audience. Audience could be everyone. Expectations should be low.</td>
<td></td>
</tr>
<tr>
<td>Secondary audiences may be critical in facilitating change.</td>
<td>Secondary audiences rarely critical in mass advertising.</td>
</tr>
<tr>
<td>Usually a major objective related to a social concern.</td>
<td>Usually aiming at slight modifications.</td>
</tr>
<tr>
<td>Tends to be strategy based on modifications/change or slow down of undesirable attitudes/behaviours.</td>
<td>Tends to be strategy based on start or stop.</td>
</tr>
<tr>
<td>Slow processes involved over time.</td>
<td>May see instant results.</td>
</tr>
<tr>
<td>Television’s commercial ‘values’ may be inappropriate to the campaign’s message.</td>
<td>Commercial television is commercial television advertising; the program is designed to deliver an audience to an advertiser.</td>
</tr>
</tbody>
</table>
Analysis of the Communication Campaign Literature

Much of the literature outlined in the previous discussion, especially by Rogers and Storey (1987) and Pettegrew and Logan (1987), can be classified as ‘media effects’ research. This approach examines the possible effect of communication content on audiences, or segments of audiences, in terms of changes in knowledge, attitudes or behaviour. In the case of communication campaigns, the campaign message, which is disseminated by various media, is typically viewed as the independent or exposure variable. The effect is the dependent or outcome variable. Thus, researchers have attempted to link exposure to the campaign information to changes in audience knowledge, attitudes or behaviours.

The effects tradition has been debated in media theory\(^1\) and is often criticised for its positivist-like approach and lack of contextualised data (McQuail 1987). Individualist psychological models underpin the theoretical framework (McGuire 1989). The campaign message is the stimulus, with the receivers conceptualised as an audience and, mostly, as a passive audience. This approach does not recognise contemporary audience analyses or reception theory (Alasuutari 1999; McQuail 1997; Tulloch and Lupton 1997).

Most early communication campaigns adhere to a narrow conceptualisation of the communication process. This process may be defined as ‘information transfer’ and the mass media and interpersonal networks are seen largely as conduits. The dominant metaphor is one of communication as the transmission of information (Penman 2000). In many respects, the use of the term ‘target audience’ implicitly supports this linear, knowledge-to-attitude-to-behaviour effects model of communication. Messages are designed to be ‘shot at’ a target audience or, as communication scholars have observed, notions of a ‘bullet theory’ or ‘hypodermic needle theory’ underpin the effects tradition.

In Simkins and Brenner’s (1984) review of communication campaigns of the 1970s and 1980s, they note an overemphasis in communication planning on social learning theory and a preoccupation with the mass media. Most campaign evaluation research, they note, stems from a linear model of mass communication effects. Such a model is useful in describing the ‘conditions with which communication-for-change programs must contend in the planning and design stage for persuasion campaigns’ (Simpkins and Brenner 1984). The model, however, does not explain why outcomes occur as a result of the communication programs.

Atkin (1981) also argued that research into the use of mass media to improve public knowledge about health was one-dimensional because it focused on what was the most effective media channel – radio, newspapers or television – to create persuasive communications. Few studies examined how various publics acquired health knowledge or how they were motivated to attend to public health campaigns.

Pettegrew and Logan (1987) note that the degree to which health care values held by health care providers, public and government coincided or conflicted was largely ignored in the campaign research literature of the 1970s and 1980s. Graham (1981), for example, explores the false conception about value in scientific or health

\(^1\) See, for example, Gitlin 1978.
knowledge. Conventional wisdom assumed that scientific knowledge was determined within the scientific paradigm, which is free and immune from the impact of social or cultural values. As a consequence, communication planners of that time might be forgiven for seeing the mass media as a ‘delivery system’. The goal was to exploit mass media campaigns to influence public education with only minimal loss of scientific data. Or, to follow the communication as transmission metaphor, the goal was to reduce unnecessary ‘noise’ in the transmission of ‘pure’ scientific and health knowledge. The research and planning focused on the source, message, channel and receiver, conceptualised as ‘an engineering problem’ of process and feedback. However, as Graham (1981) observed, scientific theories and health knowledge are constantly influenced by public, social and cultural values.

From a policy perspective, the communication process continues to be approached from what may be considered a flawed perspective. The transmission of information metaphor is so dominant in popular thinking that it may direct government and its agencies to invest unwisely in campaigns whose expectations are highly unrealistic.

Contemporary communication campaigns are far more likely to recognise the capacity of audiences to make meaning out of campaign messages, to misinterpret messages, or even to resist messages. Bauman’s (2000) concern with realistic expectations about outcomes, formative evaluation, and long-term summative evaluations is an example of this. The related issue of understanding audiences, and of segmenting audiences in campaign planning, is also interwoven with understanding people’s grounded knowledge and values.

**Discourses**

Several scholars have advocated a health communication research program grounded in cultural theory, which could complement existing approaches (Tulloch 1992; Tulloch and Lupton 1997). One way to advance such an approach is to focus research attention on discourses. By extension, campaign planners might also incorporate contemporary theoretical notions of risk.

The term ‘discourse’ refers to mean a system of knowledge and practice representing social and material phenomena that shape individuals’ perceptions of reality and of the self (Tulloch and Lupton 1997). Media discourses, medical discourses, health communication discourses and, most importantly, lay discourses about mental health, are constantly in conflict over the production of meaning. Research into contextualised knowledge is often lacking in evaluation studies about the complex relationships between campaign messages and audiences’ understandings.

A culturalist approach offers a different way of conceptualising the ‘communication’ in communication campaigns, which moves away from reliance on the knowledge–attitude–behaviour model that underpins most ‘effects’ studies and communication campaigns of the past. To examine only the end effects of campaign messages ignores the contest over the production of meaning, the unintended consequences of campaign messages, subtextual discourses, and the likely unpredictable responses of various audiences. Contemporary cultural theory acknowledges that the production and reception of meanings are highly contextual, contingent in time and space, as well as intertextual (Tulloch and Lupton 1997).
Discourse and frame analyses should explore meanings in communication campaign messages, the mass media, and the daily lives of audiences. It is important to investigate the factors that various audiences bring to their experience and reception of communication campaign messages and to the mass media. Methods such as participant observation, unobtrusive techniques, ethnography and ethnomethodology may be appropriate for investigating the multiple meanings that audiences produce from the campaigns and mass media about health messages as they go about their daily lives (Tulloch and Lupton 1997).

Some elements of the research literature explore the use of mass media by health professionals to influence audiences’ understandings and knowledge of health issues (Atkin and Wallack 1990). The research focuses particularly on television entertainment programs. Tulloch and Moran’s (1986) examination of the television series *A Country Practice* is a useful example of this.

In the next section, the experiences drawn from risk communication campaigns are discussed. The origins of such campaigns are primarily in environmental communication. This discussion is especially important for campaign planners in terms of focusing on audiences and the values they bring to any communicative process, including a communication campaign. The model that emerges from this research may be seen as a way of recognising changing practices in health communication campaign planning.

**The Concept of Risk**

Most health communication campaigns involve risk, i.e. risks to people and societal risks. The concept of risk has been at the focus of contemporary thinking in recent years because of the salience and threat of environmental issues, which have received extensive public and media attention.

Giddens (1996) observes that most traditional cultures did not have a concept of risk and argues that it is a concept associated with modern industrialised civilisation, embodying ideas about controlling or conquering the future.

Lupton (1999), Tulloch and Lupton (1997), and Lash, Szerszynski and Wynne (1996) focus on risk as an individual concept. People are forced to negotiate their lives around risks, and to rely increasingly on their own judgments about risks. Experts can assess the likelihood and magnitude of a given risk, however the public understanding of a given risk takes on meaning through our cultural practices. (See also Adams 1995).

One important cultural site for the production of meanings about risk is media content, including communication campaigns. The meaning of a particular health risk to various groups in society, for example, develops through the continuing and often changing representations of that risk in media content, and in scientific and medical discourses, as well as through other social and cultural practices. It is against this background of changing technical, media and public discourses that communication campaigns are planned.

Wynne (1996) argues that, just as expert opinion is central to ideas about risk, so too is lay criticism and comment. He observes that, while risks may be debated within
scientific or ‘public accountability’ discourses, they are dealt with by most people as individuals in very specific situations, at the level of the local, the private, the mundane, the everyday, and intimate experiences. Wynne argues that it is essential to examine how perceptions of risks are constructed by local, or as he terms it ‘situated’, knowledge, as well as by expert knowledge.

Tulloch and Lupton (1997) demonstrate, for example, that there are profound differences across class, gender, race, ethnicity, age and other variables in the ways people understand, interpret and respond to health risks. Individualism might suggest a degree of choice in negotiating risk, but it is recognised that, within the power structures of our society, some people have more authority over the ways risks are identified, defined as public, and managed, than do other people. Anecdotally, it has been noted that a teenage boy will ask for the cigarette packet with the warning label ‘Smoking is dangerous to pregnant women’ because ‘it doesn’t apply to him’.

This risk perspective offers invaluable insights for communication campaign planners. This section of communication literature has one point of origin in the environmental sciences, and is particularly important to review because of its parallels to more general communication campaigns.

**Risk Communication Campaigns**

Risk communication campaigns of the 1980s offered the promise of resolving public conflict and diminishing fear about new large-scale technologies, such as nuclear power, as well as promoting safety campaigns concerned with science, technology and health (Blood et al 2000; Covello et al. 1986; Rohrmann 1992). The concept of communication being ‘in the public interest’ was viewed as essential in fulfilling the public’s need for information and education, or for promoting behavioural change and protective action, in the face of an anticipated disaster or hazard.

Brown and Campbell (1991) note that many western societies recognised the need for public information about science and technological risks. They link heightened interest in risk communication to the emergence of environmental impact legislation and the requirement to inform the public.

The early risk communication campaign model involved ‘experts’ attempting to persuade the public of the validity of their scientific and technical risk assessments of a particular hazard. It is perhaps unsurprising that many such campaigns met with limited success, as the reviews outlined above would predict. Rohrmann (1992) observes that actual risk communication practices differed widely in terms of substantive issues addressed, audiences, information, methods of communication, and communication contexts.

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1 Tulloch and Lupton (1997) cite a vivid example from their research on HIV/AIDS at the time of the famous ‘Grim Reaper’ campaign with its final message ‘Always use condoms, always’. A young pre-teenage Aboriginal girl told them she had unprotected sex because ‘condoms are chicken’ (cowardly). The authors note that this young woman’s life involved daily personal risks. She was underprivileged, involved in petty crime, was continually in and out of remand homes, stole cars, and had been chased by the police. They conclude that ‘using a condom might indeed seem ‘chicken’. Her group was one among the many in contemporary society that takes pleasure in risk activities’.
A fundamental change in campaign planning occurred in the late 1980s with the recognition that public perceptions of various risks differed widely. This change is viewed historically as a turning point for risk communication research (Hadden 1989; Dake 1992). As Hadden (1989) observes, old risk communication models, such as those involving scientific experts attempting to persuade lay people of the validity of their risk assessments and decisions, are impeded by lay risk perceptions, by lay people’s difficulties in understanding mathematical probabilities, and by technical and scientific difficulty.

Leiss (1998) argues that the changed research direction is a shift in emphasis from ‘risk’ to ‘communication’ in the concept of risk communication. In other words, it involves ‘re-framing the issue of risk communication as a problem in communication theory and practice, rather than in the concept of risk’.

Research conducted by Slovic (1987) and Fischhoff et al (1978) is illustrative of the trend towards identifying generalisable risk perception factors. Risks perceived as familiar, controlled, voluntary, beneficial, and fair are more likely to be acceptable to most people than risks perceived in opposite ways (Slovic et al 1981). For example, the perceived health risks of chemical pollution from a local industrial factory are different from the perceived risks from exceeding the speed limit on a country road: the first is involuntary and unfamiliar, while the latter may be considered voluntary and familiar.

Risk perception research adds to the body of knowledge in this area by accounting for seemingly irrational responses by various publics to identified and potential hazards. It should be noted that the same risk might in fact produce very different perceptions in differing groups of people, depending upon the context in which the risk is understood and interpreted. These varied perceptions may produce differing policy or strategic decisions about risk ‘management’ and responses by ‘experts’ (Bradbury 1989). Rowan (1996) puts forward the following argument about generalised perception factors:

[The factors] are expressions of various types of power: informational, decisional and distributional. People who feel deprived of facts, unable to control their own lives, and forced to bear the costs but not the benefits are likely to be outraged by news of some new risk. To be effective risk communication must involve power sharing. Therefore, risk communication may not reduce conflict and smooth risk management. Empowerment can be destabilising in the short term, but it leads to more broadly based policy decisions, which can hold up over the long term.

As a consequence, contemporary risk communication campaigns attempt to be more individually reflexive and, as Hadden (1989) and Fisher (1991) argue, the key to this approach lies in establishing dialogue or conversations with the public. The notion of one-way, top-down, expert-to-public campaigns is replaced with a more interactive process designed to empower various publics. Campaigns recognise that understanding the complexities of health issues, including technical knowledge, are not necessarily beyond ordinary people. They also highlight the potential importance

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1 See also Leiss 1998 ‘transmission model’.
of the interplay between scientific forms of knowledge and those that may be considered are more cultural. In other words, lay knowledge about health issues cannot be ignored in communication campaigns.

Hadden (1989) notes that campaigns that emphasise dialogue among parties and active participation in assessing and managing risk, are ‘impeded by the lack of, or difficulty in establishing, participatory institutions’. Similarly, in a health context, Needleman (1987) notes that the goal of empowering those at risk to make an informed choice is laudable, however the risk communication intervention needs to be more than merely the dissemination of information:

The intervention must, somewhere along the line, stimulate individual and/or collective behavioural changes that reduce health risks. Otherwise, the risk communication becomes a kind of ritualistic activity, an end in itself in which the formal aspects of conveying risk information take precedence over their actual health impact. [Emphasis added].

The emergence of a participatory or dialogue model, which attempts to explore the disparity between expert information and a diverse public knowledge, has challenged both the ‘scientific’ approach to the problem of risk communication, and indeed the later perception research.1

Brown and Campbell (1991) have placed risk communication models within a two by two matrix that categorises the underlying approach in terms of low and high power devolvement, and low and high community interaction. Older models of risk communication are low in terms of both power sharing and community interaction, in contrast to newer dialogue models that are high in power sharing and high in community interaction (see Table 4).

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1 The need for this new approach is succinctly made in an editorial in the American Journal of Public Health. Marmot (1996) comments on the public response in Britain to Creutzfeldt-Jakob diseased beef, where little reliable data were available, compared with replicable studies linking moderate alcohol consumption to breast cancer:

Alcohol and beef are consumed by approximately the same proportion of the British population. Beef is as much part of the culture and economy as alcohol. Is it dread in the face of an unknown and currently unknowable magnitude of risk that has led to the greater reaction to beef? …. Scientific evidence relating exposure to harm may be necessary but is far from sufficient for actions affecting the public health.

It is not appropriate to dismiss this disjunction simply as politics. It is indeed politics, but the lesson extends further. In the latest turn of events, and not for the first time, the public was ahead of the politicians and distrustful of them. The real lesson is that we need a better understanding of the management and communication of risk.
Table 4 - Risk Communication ‘Conversation’ Models

<table>
<thead>
<tr>
<th>COMMUNITY INTERACTION</th>
<th>Low</th>
<th>High</th>
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<tbody>
<tr>
<td>‘Information’</td>
<td></td>
<td>‘Consultation’</td>
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<tr>
<td>Leaflets</td>
<td></td>
<td>Public Meetings</td>
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<tr>
<td>Displays</td>
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<td>Planning</td>
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<td>CSAs</td>
<td></td>
<td>Inquiries</td>
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<tr>
<td>‘Canvassing’</td>
<td></td>
<td>‘Conversation’</td>
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<tr>
<td>Surveys</td>
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<td>Searching</td>
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<td>Focus groups</td>
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<td>Planning Cells</td>
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<tr>
<td>Interviews</td>
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CSAs = Community or Public Service announcements, usually on television.

The key message from Brown and Campbell’s (1991) table to communication planners is to take full account of the day-to-day experiences, perceptions and cultural values of various audiences in the formative stages of any campaign. Formative research should go beyond simple quantitative measures to include more reflexive, cultural understandings of campaign messages and audiences. Of equal importance is the need to understand what various audiences bring to the reception process in their use of mass media, and their use of mass media in terms of understanding health issues.

British researcher Jenny Kitzinger, who has completed many studies on health issues, says (1994):

> We are none of us self-contained, isolated, static entities; we are part of complex and overlapping, social, familial and collegiate networks. Our personal behaviour is not cut off from public discourses and our actions do not happen in a ‘cultural vacuum’. We make sense of things through talking with and observing other people, through conversations at home or at work; and we act (or fail to act) on that knowledge in a social context. When researchers want to explore people’s understandings, or to influence them, it makes sense to employ methods, which actively encourage the examination of these social processes in action.

The notion of an active dialogue model may appear idealistic or impractical, however it should be contrasted with the failures of the dominant ‘top-down’ campaign strategies, which comprised the older risk communication approach. An active dialogue model examining expert and lay knowledge should not be viewed as ignoring technical health knowledge. The approach explicitly acknowledges the
legitimacy of all sources of knowledge central to risk dialogue, including technical knowledge (Handmer 1995). It acknowledges the importance of investigating the interplay between various discourses, including scientific, medical, health, media, and lay discourses, in planning any communication campaign.

Summary
There is evidence that communication campaigns can be effective under certain conditions for particular audiences. It should, however, be recognised that experiences drawn from diverse communication campaigns suggest many failures and unrealistic expectations about possible outcomes. In terms of modern communication campaigns, fairly small changes in audience behaviour are frequently achievable, and an important key for the campaign planner is to set modest and realistic expectations about what can be achieved.

It should be noted that not all communication campaigns necessarily involve mass media messages, or mass media messages in isolation, and that communication campaigns may be small in terms of scale and audience reach. The role of mass media campaigns in particular is more likely to be in creating awareness and knowledge of a campaign message rather than achieving behavioural changes. Bauman (2000) argues that mass media messages alone usually achieve little, and therefore other supportive interventions are necessary.

In order for a communication campaign to be successful, a number of components are considered essential. Message development is an integral component of the campaign, and there should be widespread exposure to campaign messages. Campaign appeals that are socially distant from audiences are generally ineffective, and messages promoting prevention are less likely to be successful than those with immediate positive consequences. Measurement of carefully defined outcomes is important, and research designs should include adequate resources and methods to achieve useful campaign evaluation. In addition, monitoring of linked or similar campaigns over time is important in assessing the longer-term effectiveness of campaigns. Dissemination of campaign evaluation results is particularly important to enable others to learn from previous campaign successes and failures.

Much of the literature included in this section can be classified as ‘media effects’ research, which tends to focus on the possible effect of communication content on audiences in terms of changes in knowledge, attitudes or behaviour. The effects tradition has been debated in media theory, and evaluations of early communication campaigns have been criticised for an overemphasis on social learning theory, which stems from a linear model of mass communication effects and does not explain why outcomes occur as a result of the communication programs. In contrast, contemporary communication campaigns need to recognise that audiences have the ability to make meaning out of campaign messages, and even to misinterpret resist messages. Bauman’s (2000) recommendations for campaign planners place an emphasis on determining realistic outcomes, and conducting both formative evaluation and long-term summative evaluations.

A newer approach to communication campaigns offers a ‘culturalist’ perspective. This model moves away from reliance on the knowledge–attitude–behaviour paradigm that underpins most of the earlier ‘effects’ studies and communication
campaigns. It acknowledges the importance of investigating the factors that various audiences bring to their understanding and reception of communication campaign messages. The model that has emerged from the experience of risk communication campaigns in particular acknowledges the importance of investigating the interplay between various discourses, including scientific, medical, health, media, and lay discourses, in planning any communication campaign.
5. Conclusions

Research question

*What are the most effective communication strategies and tools to improve mental health literacy among target audiences in the Australian population?*

Two main categories of mental health literacy programs were identified in this review: whole of community programs, and those targeting specific sub-groups within the population. With respect to programs designed to reach the general public, there is evidence that mass media campaigns can achieve positive outcomes in terms of mental health literacy, particularly when combined with community activities. Previous reviews of the literature have also found that mass media programs can alter knowledge of and attitudes to issues of mental health and illness, however it is recognised that the impact of media programs is limited (see Appendix 1).

It is important to note that most of the evidence of effectiveness of mass media approaches comes from campaigns conducted overseas, with relatively few evaluations in the Australian context. Earlier reviews of the literature have pointed out that, where the majority of previous research has been conducted in other countries, this may not be a sound basis from which to draw conclusions for different settings (Tilford, Delaney et al. 1995). In view of this, recommendations should be considered as a starting point from which to develop and modify campaigns. It is clearly important that programs conducted in Australia be evaluated to determine the characteristics of successful programs in the local setting.

Support for the effectiveness of mass media campaigns can be found in the general health communication literature. Reviews of the evidence relating to communication campaigns have concluded that widespread exposure to campaign messages is necessary for the success of a campaign, and that the mass media in particular play a key role in creating awareness and knowledge, in stimulating interpersonal communication, and in encouraging individuals to participate in campaign activities. Bauman (2000) and Rogers and Storey (1987) found that media messages alone usually achieve little, and that other supportive direct interventions are necessary.

Research focusing on mental health literacy also indicates that campaigns are particularly effective when they involve more than one form of media, and include community-based components and/or direct interventions (Fonnebo and Sogaard 1995; Sogaard and Fonnebo 1995; Paykel et al. 1997; 1998). Previous reviews of the literature in this area have similarly concluded that mass media campaigns supplemented by smaller-scale community activities represent the most effective approach to improving mental health literacy among the general public.

Mass media campaigns outlined in the current review differed in their ability to reach the population. Those involving television broadcasts supplemented by other media activities tended to have greater audience penetration. The Norwegian Mental Health Campaign, which comprised a television program and other media and community activities, reportedly reached 94% of the study population (Fonnebo and Sogaard 1995; Sogaard and Fonnebo 1995). In contrast, the educational television series *You*
in Mind received an audience equivalent to 13% of the adult population in the UK (Barker et al 1993).

Although there is evidence that mass media programs can be effective in modifying knowledge and attitudes, it is important to note that the impact of such campaigns is limited. Much of the attitudinal change identified in studies of mass media campaigns was relatively small in magnitude, and in the larger-scale interventions it was unclear whether positive findings could be attributed solely to the impact of the campaign, or whether other factors may have contributed. This aspect of mass media campaigns is recognised in the health communication literature, particularly in the area of behaviour change. It has been found that communications campaigns can be effective under particular conditions for specific audiences, and that while relatively modest changes in audience behaviour are often achievable, it is important to set modest and realistic expectations about what can be achieved.

In addition, it is recognised that mass media campaigns are expensive, particularly those involving television broadcasts, and it may be that other approaches are more cost-effective. Mental health literacy programs that target the general public but do not involve mass media approaches appear to be less common, but show some evidence of effectiveness in terms of attitude change. Importantly, studies of such programs have found that direct contact with individuals with mental illness is associated with the development of more positive attitudes. Previous reviews of the literature have also indicated that smaller scale approaches such as educational texts and seminars may be more cost-effective for certain audiences.

It is recognized that a number of sub-groups within the population may be appropriate for targeted mental health literacy programs. Earlier reviews of the literature have recommended that the development phase of a program should involve consideration of the audience and the overall goals, as these will help to determine the message and the medium chosen for the campaign, and ensure that resources are used most effectively.

With respect to programs targeting specific audiences, there is evidence from the literature that school-based programs can improve mental health literacy among adolescents. School-based programs included in this review differed in terms of content and mode of delivery. For example, the School Education Program (SEP) involved trained presenters visiting schools to provide information to students, while the MindMatters program provided resources and training to teachers to enable the program to be incorporated into the overall school curriculum (Evans Research 1999; MindMatters Evaluation Consortium 2000; Wyn et al. 2000).

It should be noted that important methodological issues emerged in a number of studies focusing on school-based mental health literacy programs, particularly those conducted in Australia, which prevent firm conclusions being drawn. It is disappointing that the evaluations of both MindMatters and the School Education Program (SEP), which were conducted in Australian schools, were unable to provide adequate data about impact on mental health literacy (Evans Research 1999; MindMatters Evaluation Consortium 2000; Wyn et al. 2000). It is important that future evaluations of school-based mental health literacy programs in Australia focus
on assessing the impact of programs on knowledge, attitudes and behaviour, in order to provide a sound evidence base.

When considering the mode of delivery of school-based programs, it is important to note that, in their review of the effectiveness of school-based health promotion, Fletcher, Stewart-Brown and Barlow (1997) concluded that ‘traditional’ educational health programs are effective in improving knowledge of health issues but do not produce lasting behavioural changes. They suggest that more innovative programs can bring about significant changes in health behaviour, and propose that a promising strategy for school-based health promotion campaigns is a more holistic approach with a core mental health or emotional well-being program delivered throughout the school years.

Some of the strongest evidence of effectiveness of mental health literacy programs comes from studies of educational interventions for carers and family members of people with mental illness. In particular, programs for family members of individuals with schizophrenia have been evaluated in a range of studies and found positive results in terms of improvements in knowledge and attitudes. In addition, a number of studies found that programs resulted in improvements for mental health consumers, although it was generally unclear whether the educational component of the interventions was responsible for this outcome, or whether social aspects of the intervention may have contributed. It may therefore be concluded that, while many of the educational programs resulted in improved knowledge of mental illness, it was not found that changes in knowledge had any significant impact on other variables.

When considering the evidence of effectiveness of health communication programs, it is clearly important to bear in mind the theoretical basis for communication strategies. It is apparent from the literature, however, that theoretical issues are not adequately addressed in studies of mental health literacy programs. Research in this area tends to focus on the possible effects of communication content on audiences in terms of changes in knowledge, attitudes or behaviour. This is particularly true of studies relating to the mass media. However, such an approach has been criticised for an overemphasis on a linear model of mass communication effects, or the knowledge–attitude–behaviour paradigm.

It is important for campaign planners to recognise the factors that various audiences bring to their understanding and reception of communication campaign messages. Contemporary theory acknowledges that there are complex relationships between campaign messages and audiences’ understandings. Research into mental health literacy campaigns should take into account how various audiences acquire health knowledge and what factors motivate audiences to attend to public health messages. In order to achieve this, Bauman (2000) in particular emphasises the importance of formative evaluation and process evaluation, to provide essential information about message production and dissemination, and the responses of various audiences. Importantly, Bauman recommends that campaign planners be clearly focused on outcomes that are feasible, achievable and measurable.
Supplementary questions:

a) To what extent have such strategies improved levels of knowledge and awareness, achieved attitudinal change and/or behavioural change and/or achieved positive changes to broader community attitudes which may have had a flow-on effect to mental health consumers?

There is evidence that mass media campaigns have achieved changes in knowledge of and attitudes to mental illness, however such changes have been quite small in magnitude. It is also unclear from a number of the studies whether the campaigns themselves have resulted in the changes measured in the studies, or whether other factors may have contributed. Community education programs utilising other modes of delivery, such as education courses, similarly found positive changes in attitudes and knowledge, however the number of studies looking at this approach is relatively limited. Evaluation of school-based programs for adolescents generally found that there was an impact on awareness and attitudes, however it should be noted that the two school-based programs conducted in Australia were unable to provide adequate assessments of effectiveness.

Many studies did not attempt to measure behavioural change, and those that did generally relied on self-report measures, which were unable to be validated. It is possible that in a number of studies, reported changes in behaviour or intentions were over-stated. As noted earlier, reviews of health communication campaign literature have found that mass media campaigns alone are unlikely to achieve widespread or long-term behaviour change. Media campaigns are important in generating awareness and improving knowledge about health issue, however other supportive activities are required to produce significant behavioural change. Rogers and Storey (1987) point out, however, that, given the limitations of communication campaigns, a program may be considered effective even if behaviour change is limited to a very small segment of the target audience.

Reducing the level of stigma and discrimination experienced by people with mental illness was recognised to be an important aim of many of the programs included in this review, however the majority of studies did not actually attempt to measure flow-on effects for mental health consumers. Evaluations of programs targeted to carers and families of people with mental illness were the exception to this. Overall, these studies found that rates of hospitalisation and relapse rates for people with mental illness may be reduced by educational interventions targeted to carers and family members. However, no direct association was found between improvements in participants’ mental health literacy and beneficial effects for mental health consumers.

b) What are the determinants of successful public health information strategies, for example, strategy development, ‘selling the message’, communication tools (eg print, radio, television and/or film), post-strategy follow-up and cost effectiveness?

In terms of mental health literacy programs, it is clear that a number of elements are associated with successful campaigns. In particular, determining the goals of
the campaign and the characteristics of the target audience are essential to ensure that the message and mode of delivery of the campaign are appropriate. When developing campaign messages, it has been found that campaigns that communicate the benefits of a particular attitude or behaviour change to the general public are more effective than attempting to convey concepts alone. This is supported by the findings of Rogers and Storey (1987) in their review of the communication campaign literature. They found that campaigns that promote prevention are less likely to be successful than those with immediate positive consequences, and that messages that are socially distant from the audience member are not effective. A number of studies of mental health literacy programs have also found that campaigns which are able to achieve direct contact between the audience and mental health consumers are associated with improved attitudes.

Literature relating to general health communication strategies also recognises the importance of campaign strategy development. In this context, formative evaluation is viewed as a necessary part of a successful campaign. This involves evaluating aspects of the campaign, especially message design and audiences understandings, in the planning stages. This work can improve the effectiveness of programs by producing messages that are specific to the goals of the campaign.

Determining the most appropriate communication tools depends largely on the target audience and the goals of the campaign. In the current review, mass media campaigns which have reached the largest proportion of the general public were those which utilised television broadcasts in association with other media promotional strategies. An example of this was the Norwegian Mental Health Campaign, which achieved 94% awareness in the population (Fonnebo and Sogaard 1995; Sogaard and Fonnebo 1995). The success of this campaign was attributed to the wide variety of media and community activities undertaken, as well as the support provided by government and high profile individuals and organisations. Studies of other forms of health communication campaigns have also found that positive changes in attitudes and awareness tend to be associated with programs that utilise both mass media and community strategies, rather than media or community activities alone.

Programs that are designed to reach particular target groups may be delivered more effectively through approaches other than mass media. School-based programs are effective at reaching school-aged adolescents, however it should be noted that not all individuals in this age group will be reached through such programs. Mental health literacy programs for carers and families have been shown to be effective when delivered in a group educational setting. Such an approach has been shown to be more effective than the provision of written information alone.

It is important to note that none of the studies included in this review adequately investigated cost-effectiveness of mental health literacy programs. While there is some evidence that mass media approaches can achieve changes in awareness and attitudes in the wider population, it is recognised that such strategies are costly. Studies of cost-effectiveness are appropriate in this area, particularly as there is evidence that community activities can enhance mass media approaches, and may prove to be a more cost-effective approach for certain target groups.
c) Which determinants of successful strategies and campaigns apply to all populations and which to particular target audiences?

Previous reviews of the literature have concluded that mass media campaigns may be most effective at reaching the general public, while programs targeted to specific sub-groups or which are designed to produce behaviour change may be delivered more effectively through smaller group or community-based approaches. It has also been found that mass media strategies may be more effective at achieving long-term change in awareness and attitudes if they are complemented by community activities.

The current review tends to support these findings. Campaigns involving large-scale mass media approaches were often able to reach a significant proportion of the general population. However, it was also found that changes in attitudes and knowledge achieved through mass media approaches are limited, and therefore smaller-scale strategies may be more appropriate and cost-effective for particular target groups. In particular, community-driven activities and public education courses combined with mass media campaigns may result in greater changes in knowledge and attitudes than media approaches alone.

As stated earlier, programs that have focused on particular audiences have generally been delivered in a school-based setting, or targeted to carers and families of people with mental illness. While programs focusing on other target groups may have been initiated, few evaluations have emerged from which to make judgements about effectiveness. Overall, there is evidence that school-based programs are effective in improving attitudes and knowledge among adolescents, however the evidence of effectiveness of Australian programs is less strong. Programs targeted to caregivers and relatives of people with mental illness have also been shown to be effective, and, importantly, may result in beneficial effects for people with mental illness.

It should be noted, however, that all studies of programs for carers and families have been conducted in the US and the UK, and therefore such programs may not be directly transferable to the Australian context. Despite this, it is clear that this group is an important audience for targeted mental health literacy programs. In addition, there is a need for further evaluation of strategies which will effectively focus on other target groups, such as mental health consumers, people from non-English speaking backgrounds, and individuals at high-risk of developing mental illness.

d) Which successful public health information strategy models are transferable in terms of content and/or process across topic areas and/or demographic groups in Australia?

Most of the programs studied were conducted in countries other than Australia. It is therefore difficult to determine to what extent successful programs may achieve the same effects in the Australian context. The issue of transferability of programs was recognised in a large-scale review of effectiveness of mental health promotion programs conducted for the Health Education Authority in the UK.
(Tilford, Delaney et al. 1995). The review found that most evidence came from countries other than the UK, and therefore conclusions about applicability to the UK context were tentative only. A similar recommendation may be made for the current review, as only three of the studies were conducted in Australia. In addition, significant methodological issues emerged in a number of these studies, particularly those investigating school-based programs, and the strongest evidence tends to come from evaluations of overseas studies.

In terms of transferability of content and process across different settings and target groups, several issues need to be addressed. Program content may not be transferable between different geographical regions, or between different demographic groups. It has been noted that campaigns must be carefully tailored to particular audiences, and therefore a program designed for adolescents that is delivered in a school setting is not likely to be appropriate for older age groups, or for target groups such as mental health consumers. It is important to recognise that audiences are diverse, and, in particular, cultural and language differences must be taken into account when designing or transferring program content. In terms of geographical regions, information about resources, health services, and treatment options may differ greatly between different countries and states, and even between metropolitan and rural areas.

Selecting the most appropriate mode of delivery may also be quite specific to particular regions and target groups. As has been noted, mass media campaigns are generally suited to whole of community campaigns, while other strategies may be more effective for targeting sub-groups of the population. Although a number of overseas studies have found that mass media campaigns are more effective when supplemented by community-based activities and direct approaches, there have not been any evaluations of such techniques in the Australian setting.

e) In which areas may further research be commissioned on public health information approaches to mental health literacy?

A number of important areas for future research have emerged from this literature review. Firstly, there is a lack of strong evidence of effectiveness of mental health literacy campaigns in the Australian context. Only three of the twenty-one programs reviewed were conducted in Australia, and the findings of a number of these studies were inconclusive. There is a clear need for evaluation of mental health literacy programs in Australia, both in terms of campaigns targeted to the general population, and those aimed at particular sub-groups.

While a number of target populations for mental health literacy campaigns have been identified, relatively few programs in this area have been evaluated. For example, no studies were identified which investigated programs designed specifically for mental health consumers or individuals at risk of developing mental illness. In addition, only one program targeted to people from non-English speaking backgrounds was found for inclusion in the review (Bhugra, Baldwin and Desai, 1997). As this was a small-scale pilot study conducted in the UK, it is unclear whether the results would be applicable either to the wider population or to the Australian context. There is therefore a need for evaluation of such
programs, in order to determine the characteristics of mental health literacy campaigns that are effective for particular target groups.

The issue of cost-effectiveness has not been addressed in previous studies of mental health literacy campaigns. This is clearly a key area for further research, particularly as many programs tend to involve high cost strategies such as mass media campaigns. It is important to determine to what extent particular outcomes may be achieved using smaller-scale and less expensive methods, especially as more direct, community-based approaches have been found to be an important component of successful campaigns.

As discussed earlier, the health communication literature emphasises the importance of formative evaluation and process evaluation of communication campaigns. Much of the previous research has focused on evaluation of outcomes, and has tended to neglect evaluation of the development and implementation phases of communication and information programs. It is also recognised that monitoring of linked or similar campaigns over time is important in assessing the longer-term effectiveness of campaigns. It is clearly important that future research involves appropriate resources and methods to achieve useful evaluation of strategies to improve mental health literacy.

**Methodological Issues**

Important methodological limitations were identified in many of the studies in this review. Issues about study design, in particular, arose in much of the literature. These limitations must be taken into account when interpreting any findings, as they have an important impact on the strength of any conclusions that may be drawn from the literature.

The studies selected for inclusion in this review may be classified generally as program evaluation research. In view of this, it is important to consider the nature and methodological approaches of program evaluation, in order to inform future research in the field of mental health literacy.

**Program evaluation**

Program evaluation involves the assessment of a program to determine its merit, worth or value (Hawthorne, 2000; Scriven, 1991). A program may be defined as ‘a planned set of activities directed towards bringing about specified changes in an identified and identifiable audience’ (Smith 1988). As such, the expected outcomes of a program may be identified and measured, along with unforeseen or unexpected program effects.

Evaluation research uses the scientific method to assess the worth of a program, in order to make judgments about a program’s intended and unintended outcomes (Hawthorne 2000). The term ‘scientific method’ refers to the use of research methods that enable any findings or outcomes to be attributed to a particular cause, in this case to the activities of a program (Hawthorne 2000). Such research methods involve:

a) a strong research design that minimises bias, distortion or confounding and that maximises the generalisability of findings;

b) the use of sensitive, valid and reliable measurements;
c) the generation of outcome data that are standardised in some way so they are stable, and they can be identified and described; and

d) conclusions drawn from logical reasoning, based on deductive and inductive thinking, such that they are stated with a degree of precision which can be universally understood.

**Forms of evaluation**

Evaluation may be classified into three broad categories: *formative evaluation*, *process evaluation* and *summative evaluation* (Scriven 1991; Hawthorne 2000). Formative evaluation is generally conducted during the development stages of a program, in order to provide feedback to program planners during the design phase. Process evaluation involves monitoring the implementation and operation of a program, to determine whether program activities are conducted as intended. Evaluation conducted after the completion of a program is generally classified as summative evaluation.

Summative evaluation involves assessment of the effects of a program, and can be categorised as either *impact evaluation* or *outcome evaluation* (Hawthorne 2000). Impact evaluation aims to measure the immediate or short-term effects of a particular program, such as changes in knowledge, attitudes or behavioural intentions. These measures may be considered ‘surrogate’ criteria for the actual long-term aims of a program, e.g. changes in a population’s health status or behavioural change. In contrast, outcome evaluation assesses the long-term effects of a program, such as actual behavioural changes, rather than merely the immediate impacts.

**Evaluation study design**

Evaluations of health or social programs, such as those designed to improve mental health literacy, may involve a number of different approaches. Selection of a study design will depend on a number of important factors. It is necessary to consider general issues about the aims, resources and context of the evaluation, as well as specific issues relating to the validity of the research (Hawthorne 2000; Grembowski 2001).

The selection of a study design will depend largely on the purpose of the evaluation (Hawthorne 2000). Where an evaluation aims to determine causality, it is generally appropriate to choose an ‘experimental’ research design. In contrast, for a study that aims to understand an aspect of human behaviour, an ‘observational’ design may be more suitable. In addition, it is important to consider the actual context and setting of the evaluation. While a particular study design may be considered most appropriate to achieve certain aims, it may not be feasible to implement such a design in all situations.

**Types of study design**

Study designs are generally classified as one of three basic types (Colton 1974; Kumar 1996; Scriven 1991; Hawthorne 2000; Grembowski 2001):

- experimental;
- quasi-experimental; or
- pre-experimental / observational.
Experimental designs are those in which the investigator has control over participants, treatment and observations. They involve two or more groups, at least one of which consists of participants who receive a particular treatment, while a second group forms a control or comparison group. An important feature of experimental designs is the randomisation of participants into either the treatment or control group.

The most commonly referred to form of experimental design is the ‘pre-test/post-test control group design’, or ‘randomised controlled trial’. This study design involves randomisation of participants into treatment and control groups, with observations or measurements conducted prior to and following the treatment or intervention phase. Another common form of experimental design is the ‘post-test only control group design’, which involves randomisation into treatment and control groups, with observations conducted following the intervention only.

Quasi-experiments have some features that are similar to experimental designs. They involve treatment and control groups, however there is no randomisation of participants into these groups. Good quasi-experimental designs aim to match the control group as closely as possible to the treatment group, in order to minimise differences between the two groups.

One of the most common examples of quasi-experimental design is the ‘pre-test/post-test non-equivalent control group design’. This study design involves control and treatment groups without randomisation of participants. Selection or matching criteria are often applied to minimise differences between the groups. Observations are conducted prior to and following the treatment phase. Another form of quasi-experiment is the ‘separate samples pre-test/post-test design’. This design is commonly used when studying interventions in large populations. It involves the use of two separate samples of participants, with observations conducted in one sample prior to the treatment, and post-treatment observations conducted in the second sample.

In pre-experimental or observational designs, the investigator has little or no control over participants, treatments and observations in the study. Such designs are limited in their ability to establish causality, i.e. whether observed changes are actually caused by a particular intervention. One example of this design is the ‘post-test only with non-equivalent groups design’. This involves the use of treatment and control groups that have not been matched, with observations conducted in both groups following the treatment only.

**Research validity**

When selecting a study design for a program evaluation, issues of internal and external validity must be taken into account. The concept of internal validity refers to a study’s ability to make accurate causal inferences about the impacts of a particular program (Grembowski 2001). In other words, the study should be able to determine whether any observed changes caused by the program itself, rather than by other factors. Certain study designs tend to have fewer threats to internal validity than others (Hawthorne 2000; Grembowski 2001). In particular, experimental designs have higher internal validity than quasi-experimental designs, which in turn have higher internal validity than pre-experimental, or non-experimental, designs.
The issue of external validity arises when considering whether the results of a particular study can be generalised to other settings, populations or time periods. In order to consider external validity, it is first necessary to determine that the study has internal validity. When determining external validity, issues to consider include whether the study setting is comparable to other potential settings, and whether the sample population included in the study can be generalised to the wider population.

**Selection of study design**

Studies included in this literature review tended to be summative evaluations, i.e. studies that aimed to measure the effects of a particular program. When selecting a study design for a summative evaluation, it is important to note that some study designs will facilitate more accurate and generalisable findings than others. Studies involving a before-and-after, or pre-test/post-test, design are generally considered to be the most appropriate for summative evaluations (Kumar 1996; Hawthorne 2000).

Summative evaluations tend also to be conducted from an ‘experimental’ evaluation perspective (Hawthorne 2000). The aim of such an investigation is to measure the effects of a program in a rigorous manner, to determine whether any observed changes are in fact caused by the activities of the program, rather than by other factors. In order to achieve this purpose, studies involving an experimental design with comparison groups and randomisation are preferred (Grembowski 2001). One of the most common examples of this form of experimental design is the ‘pre-test/post-test control group design’, or ‘randomised controlled trial’ (RCT).

It is important to note, however, that an experimental study design is not always feasible when evaluating a health program (Hawthorne 2000; Grembowski 2001). In view of this, evaluators often use study designs that are defined as either quasi-experimental or pre-experimental / observational. Where true experimental designs are not used, it is important that threats to internal validity are reduced. One example of a study design commonly used in summative evaluation research is the ‘pre-test/post-test non-equivalent control group design’. This is a form of quasi-experiment involving treatment and control or comparison groups without random allocation of participants. This is considered to be a strong design, particularly where there are selection or matching criteria, such as age and gender, to minimise differences between the groups of participants (Hawthorne 2000; Grembowski 2001).

**Program logic**

Evaluations of public communication campaigns, such as mass media campaigns, raise specific methodological issues. In particular, it is often difficult to separate the effects of such campaigns from those due to external influences (Owen 1993). The use of experimental study designs is often not feasible when evaluating this type of program, as mass communication approaches are generally conducted at a population-wide level, and it may not be possible to control for external factors in this setting.

These difficulties may be overcome to a certain extent by the use of program logic approaches as part of the evaluative process. Program logic methodology involves the clarification of the logical causal path underlying a program’s activities (Hawthorne 2000). The aim of this process is to elucidate intended program outcomes, as well as the causal mechanisms underpinning these outcomes. It involves clarification of the
program’s theory of action, which is particularly important in the evaluation of complex programs.

Importantly, program logic modelling allows for evaluation of outcomes at different stages of the program. For example, intermediate outcomes that form part of the chain of events leading to a program’s ultimate outcomes can be clarified and measured (Owen 1993). This process provides information about the characteristics of successful and unsuccessful programs at each stage, rather than simply relying on measurement of ultimate outcomes.

As stated earlier, the causal mechanisms underlying a particular program’s activities and any observed effects may be difficult to ascertain. It is important to recognise that summative evaluation is not the only approach to investigating the merit or worth of a particular program, and may not always be appropriate. In many circumstances consideration should be given to conducting either a formative or process evaluation of a program, for which the development of a program logic model is particularly appropriate.

Summary

Evaluations of mental health literacy programs may involve a number of different approaches. Studies included in this literature review tended to be summative evaluations, i.e. research designed to measure the effects of a particular program. The aim of such an investigation is to measure the impact of a program in a rigorous manner, to determine whether any observed changes are in fact caused by the activities of the program, rather than by other factors. When choosing the most appropriate study design for a summative evaluation, it is important to recognise that some study designs will facilitate more accurate and generalisable findings than others.

In general, a before-and-after, or pre-test/post-test, design is considered to be the most appropriate for a summative evaluation. In addition, an experimental study design involving randomisation of participants into treatment and control groups is preferred, as such designs tend to have high internal validity. It is important to note, however, that a true experimental study is not always feasible when evaluating a health program, and therefore evaluators often use either ‘quasi-experimental’ or ‘pre-experimental / observational’ study designs. Where such study designs are used for a program evaluation, it is important that threats to the internal validity of the study are identified and reduced.

Evaluations of public communication campaigns raise specific methodological issues. Mass communication approaches are generally conducted at a population-wide level, and often it is not possible to control for external influences. The use of experimental study designs may therefore not be possible in these settings. When evaluating such a program, consideration should be given to developing a program logic model. Program logic methodology involves clarification of the program’s theory of action and the logical causal pathway underpinning a program’s activities. This process can assist in elucidating the characteristics of successful and unsuccessful programs at each stage, rather than measuring only the ultimate outcomes. In many circumstances it may also be appropriate to conduct a formative or process evaluation of a program, for which the development of a program logic model is often a key component.
Appendix 1 – Previous reviews of the literature

**Reviews of Mental Health Literacy Programs**

The literature relating specifically to improving mental health literacy is not large, and consists largely of studies of individual programs, papers providing background information, and policy framework documents. In addition, a number of large-scale reviews of the literature have been conducted in recent years. Most of these involved reviews of mental health promotion and mental illness prevention programs in general, and therefore many of the programs reviewed do not specifically relate to improving mental health literacy. An overview of this previous research is provided in this section, as a number of the findings are of relevance to the development of effective mental health literacy programs.

**Day (1987)**  
**Improving community education strategies for mental health promotion.**

In an early review of the literature relating to mental health education programs, Day (1987) provided a number of recommendations for the development of effective mental health promotion campaigns. While these recommendations specifically referred to the development of Canadian programs, it is worth considering their relevance to the Australian context. In the review, Day examined a number of aspects of mental health education programs, in particular: the message, the audience, the medium, and the goals and objectives of the program. The review included 39 references, comprising both studies and books, most of which were published prior to 1980 and are therefore not included in the current literature review.

With respect to the theme and content of mental health education campaigns, Day found that messages should be interesting and informative, but also simple enough for the information to be conveyed easily to the target audience. The content of the message and theme of the campaign may vary according to the aims of the program. Increasing awareness generally requires the presentation of simple and direct information, while modifying attitudes may require more persuasive techniques. A program that aims to modify behaviour requires more complex content with a sound theoretical basis, such as social psychology theory. The review also stated that ‘authoritarian pronouncements’ should be avoided, as these tend to create anxiety in the audience when applied to the subject of mental illness.

Day found that most mental health education campaigns were directed towards the general public, and that such an approach often did not succeed as it did not take into account the varied characteristics of the audience. Day recommended that programs designed mainly to increase awareness and interest in mental health issues should be targeted to the general population, however programs designed to modify certain behaviours should be targeted to specific groups. Three groups were identified to whom mental health education should be directed: those vulnerable to emotional disorder, those in positions of power in the community, and those with caregiving roles.
When considering the appropriate medium for conveying mental health messages, Day noted that the mass media were the most important method for the presentation of such information. However, he pointed out that mass media formats are costly, and may oversimplify issues. He stated that small-group discussion formats might be more effective at achieving long-term changes. Day recommended moving towards a participant model of mental health education, rather than more passive approaches. He stated that the most effective campaigns would involve media presentations to improve perception and awareness of the issues, which were then followed by small group presentations and discussions in order to promote attitude and behaviour change. Overall, Day recommended that the development of effective campaigns involved taking into account all the elements of the program already outlined, and that future programs should be evaluated to increase the body of literature regarding effectiveness.

Effectiveness of mental health promotion interventions: a literature review.

More recently, a large-scale review of mental health promotion interventions was undertaken for the Health Education Authority in the UK (Tilford, Delaney et al. 1995). This review included 72 studies, the majority of which (71%) were from the United States. The aim of the review was to identify interventions that had been shown to be effective in preventing mental disorders and promoting positive wellbeing. While a number of studies related specifically to improving mental health literacy, the majority did not. Those that related to mental health literacy were generally mass media interventions directed to the whole community. It was found that there was evidence that mass media campaigns can modify knowledge and attitudes to mental illness, however it was acknowledged that the impact of such campaigns is limited. The authors noted that the impact of media campaigns might be enhanced by complementary community activities, which corresponds with the findings of the review conducted by Day (1987).

Mental health promotion studies targeted to specific groups generally did not involve programs to improve mental health literacy, but were instead focused more specifically on interventions designed to prevent mental illness and promote overall wellbeing, such as courses on self-esteem and coping skills. Despite the relatively small number of mental health literacy programs included in the review, the authors made the recommendation that children as a group should have access to health education curriculum that incorporates mental health components.

Hodgson, Abbasi and Clarkson (1996)
Effective Mental Health Promotion: a Literature Review.

Another major review of the literature relating to mental health promotion interventions was undertaken by Hodgson, Abbasi and Clarkson (1996). They defined 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.’ The review focused on evidence from studies that were either randomised controlled trials or quasi-experimental designs. As with the review by Tilford et al (1995), most of the studies identified for the review were conducted in
the US, however the focus for this review was slightly narrower, and very few of the programs reviewed related specifically to mental health literacy.

The authors concluded that there was clear evidence that mental health promotion programs can be effective, and that many successful programs utilise a targeted rather than universal approach in order to modify particular risk or protective factors. They stated that the identification of individuals who are likely to receive benefit from a particular program is an important issue, to ensure that resources are used wisely. The authors also recommended the implementation of multi-national studies to determine the generalisability of study findings between different countries and settings.

**Krupinski and Burrows (1989)**

**Mental health promotion policy strategies for Australia.**

An Australian review of mental health promotion and prevention programs by Krupinski and Burrows (1989) differed from those discussed previously in that it aimed to assess the state of mental health promotion and prevention activities in Australia at the time, rather than provide a detailed review of the literature. A total of 50 programs relating to mental health were identified through the computerised database Health Education and Promotion Information System (HEAPS), and the majority of these related to relaxation and stress management. Information about a further 268 programs was obtained through a survey of relevant organisations. Of these, 21% were educational programs, however it is unclear whether any of these were designed to improve aspects of mental health literacy. The authors noted that very few of the programs had undergone systemic evaluation.

The recommendations of the review were that mental health promotion programs should be targeted to the population as a whole, and prevention activities should be targeted to particular at-risk or mental illness groups. The authors proposed that programs directed to the general population should focus primarily on increasing community knowledge and awareness of mental illness and issues related to mental health, as well as altering negative community attitudes to mental illness. They stated that the best method of conveying information to the general population was through the mass media, and proposed that broadcast media, periodicals, and local papers may be the most appropriate vehicles for mental health education. The authors also recommended educational books and brochures as an inexpensive method of disseminating information, although they acknowledged that such information would probably be most effective at reaching those who were already interested in mental health issues.
Reviews of Communication Campaigns

Given the relatively small amount of literature focusing on mental health literacy programs, it is useful to extend the literature review to other areas of health communication. The following section provides an overview of selected major reviews of communication campaigns on related health issues such as, alcohol, tobacco and other drug use, drink driving, sexual matters, HIV/AIDS, road safety, and ‘youth’ issues.

Shanahan, Elliott and Dahlgren (2000).
Review of public information programs addressing youth risk-taking.

This report, commissioned by NYARS, involves a critical literature review focused on evaluations of national and international mass media communication campaigns designed to improve the health of young people. It includes a study of attitudes of selected managers of Australian mass media campaigns directed at youth and addressing youth risk taking.

In our view, this is a significant paper that deserves special attention by Australian communication campaign planners. Although focused on youth risk-taking, the conclusions and suggestions have wider implications. Overall, the authors concluded that barriers to the effective development of a public communication campaign included the following:

- Unrealistic expectations;
- The absence of a clear set of objectives;
- Poorly defined target groups or audiences; and
- The failure to develop successful messages for its intended audience.
- Additionally, campaign managers raised the pragmatic constraints of limited budget and time, a scarcity of personnel and resources, as well as the need to satisfy political objectives.

Unrealistic expectations and unachievable goals emerged as a prime barrier to the effectiveness of public communication campaigns; a point made in earlier reviews of the campaign literature.

In general, campaigns aimed to achieve one or more of the following:

- Agenda setting: increasing the salience of a particular risk-taking behaviour by attracting community attention;
- Improving levels of knowledge and awareness;
- Achieving changes in behavioural intent;
- Achieving changes in social norms;
- Sustaining safer behaviours by young people; and
- Achieving attitudinal changes among the broader community, which have a flow-on effect to young people’s attitudes and behaviour.
Achieving behavioural change was generally acknowledged as an extremely difficult goal. Evidence from the literature indicated that advertising on its own rarely led to wide behavioural change, particularly in the area of health.

Changes in behaviour were more likely to eventuate over a long period of time, and only if the mass media communication was supported by other activities (such as community-based interventions, sponsorship, public relations). Changes in awareness or salience of a particular health issue can be achieved in the relative short term, and awareness raising or signposting the need to change, can be a legitimate campaign goal.

The report identified elements of a successful campaign:

- The implementation of a thorough planning stage;
- The use of research: to help define the target groups, to understand the issue from the target group’s point of view, to test alternative messages, and to evaluate the campaign;
- The establishment of realistic and achievable objectives;
- The linking of media campaigns to other supporting activities (eg community and/or school-based activities);
- The utilisation of more than one form of media; and
- The provision of sufficient time and resources to enable the campaign to achieve its objectives

It is suggested that health communication campaigns need to adopt broader and more aggressive strategies. Campaigns must target children younger than has been the norm. It is suggested planners: ‘micro target’ strategies to the needs and interests of different ages and environments; provide consistent messages from a variety of sources and over a long period of time; and emphasise giving children control and ownership of their own destinies.

The report also highlighted the need to adopt a step by step process in planning procedures. This relates directly to setting realistic aims and a workable strategy, the use of an appropriate theoretical model, and the implementation of a range of research procedures.

The report noted that campaign managers interviewed for the study made specific mention of the need at the planning stage to include on the management team relevant expertise for the various campaign components. This strategy development, they said, might include expertise in research, public relations, advertising, and media. Processes involve the development of a communications brief, the gathering of existing research and data on the campaign issues, and the conduct of developmental or exploratory research. (As in formative research, mentioned above).

Accurately identifying the target audiences for a proposed mass media campaign was highlighted. Extreme care needs to be taken in determining the target groups and in understanding their attitudes. Planners need to understand the ‘world view’ of the so-called youth target groups. Planners should examine closely the likely age, gender and demographic differences among a youth target group, as well as differing attitudes
and behaviours. ‘Youth’ is not a homogeneous group and careful differentiation is essential.

The report also notes the importance of developing ‘meaningful messages’. Campaign managers interviewed were adamant that the key to reaching the target groups effectively for a mass-media-led public campaign was knowledge of the target audiences, as well as the use of images and language with which they could readily identify.

A range of issues were examined including the benefits of using research to pre-test alternative messages (formative research), and of involving youth in communication development, as well as discussion of the use of negative and positive approaches, and fear or threat appeals, in communications to youth.

Evidence suggested that most effective media campaigns use a range of media, choosing different media according to their different strengths to create a synergistic communication. The report noted the importance of choosing appropriate media, effective use of placement, and related audience experiences in the use of television, radio and print. Other media vehicles, such as comics and videos, were examined, which may be useful in reaching alienated youth.

The report also noted the role and importance of complementary and coordinated activities, such as public relations, sponsorship, and school and community based activities. Generally, there was strong support among those campaign managers interviewed for complementary activities to any mass media campaign. The use of community based activities, promotional events, and the like, often ‘give teeth’ to the campaign and provide some tangible way of reaching the target audiences through a social or cultural channel, the managers said.

There was considerable evidence, the report said, that mass media campaigns will only have a substantial impact if they are integrated with other intervention strategies. The report noted that adequate evaluation techniques are infrequently used.

The researchers identified the following factors that limit the potential of the mass media:

- The amount of activity contrary to health campaign objectives that appear in the media;
- The shortcomings of the media (eg failure to reach the target audiences, insufficient time, etc);
- Insufficient time allowed for the campaigns;
- Lack of funding;
- Poor media placement and timing;
- The sometimes over-simplification of complex behaviours;
- Cultural factors working against the aims of health campaigns; and
- The inherent difficulties of communicating to youth.

The report concluded:
• Expectations of what mass media campaigns can and cannot do need to be carefully considered.

There is a tendency to believe that mass media can reach everyone and, on exposure, change behaviour. This belief follows the ‘theory of mass media influence known as the ‘bullet’ theory, ‘hypodermic needle’ theory or ‘direct effects’ model. The assumption is that the audience is passive and the mass media is powerful and capable of influence and persuasion, and of affecting attitudes and behaviours. (See Section 5).

• Evidence suggests that mass media campaigns, aimed at improving public health, can:
  - Increase awareness of a problem, or at-risk behaviour;
  - Raise the level of information about a topic or issue;
  - Help form beliefs, especially where beliefs are not held firmly;
  - Make a health issue more salient and thereby sensitise the audience to other forms of communication (eg personal communication, school/community-based activities, public relations, brochures etc);
  - Simulate interpersonal influences via conversations with family or friends, teachers etc;
  - Generate forms of self-initiated information seeking; and
  - Reinforce existing attitudes, beliefs and behaviours.

• Determining appropriate goals of a mass media campaign emerges as one of the key considerations.

Goals should be set at the outset, and they need to be realistic and attainable. Successful campaigns have achievable goals and have not attempted to create too much change. Many campaigns have raised awareness of an issue or signposted the need for behavioural change, which, in turn, can be supported by other means. Random Breath Testing media campaigns and complementary legislation is an example.

Evidence also suggests that it is better to seek a slight change in attitudes or behaviours and, where possible, build upon existing attitudes and opinions.

• The more successful campaigns have used a variety of media and implemented support activities as an adjunct to the main messages conveyed through the mass media.

• In developing any campaign directed at reducing or minimising youth risk-taking, it is important that at the outset a clear understanding is gained (and agreement reached) on who are the target audiences.

Accompanying this requirement is the need to have an understanding of the target audience’s attitudes and motivations. That is, how do the
target groups construe risk taking? What is and, importantly, what is *not* risk-taking from their perspectives? What are the situational and environmental factors impacting on their attitudes, behaviours and motivations? (A review of risk communication campaigns is provided in Section 5.)

- **Understanding the audience is critical.**

  The way an audience currently behaves and what it believes will determine what it will eventually do with the campaign messages. Audiences, especially youth audiences, are active recipients of campaign messages, interpreting and accepting or rejecting what is being communicated to them.

- **The diversity of sub-cultures within the youth population makes it difficult to develop a message that will gain uniform understanding or acceptance.** Target segmentation and the implementation of different messages for different sub-groups should always be considered. There is no single target group or audience. The focus should be on audiences.

  The diversity of youth attitudes and behaviours indicates that there are some who, for various reasons, will not respond to a communication campaign at all. Other approaches, such as comics, community-based activities and direct personal interventions, need to be considered for these subgroups.
Fletcher, Stewart-Brown and Barlow (1997). Systematic review of the effectiveness of school-based health promotion

This report on several reviews critically evaluated the effectiveness of school-based health promotion campaigns concerning alcohol abuse, substance abuse, tobacco control, sexual health, accident prevention and mental health issues. The goal was to identify common attributes of successful and meaningful interventions. [Method of data collection is included with the review paper].

Most of the reviews and primary studies were carried out in America. The review identified two main approaches to health promotion activities in schools – ‘traditional’ and ‘innovative’. Traditional approaches are pedagogic, focusing on provision of information to students. Teaching method involve lectures, question and answer sessions, and provision of reading materials. Innovative approaches based on ‘active’ methods include programs such as:

- Decision support programs, which teach children how to make rational decisions about particular behaviours.
- Self esteem programs focusing on the development of individual feelings of self worth and value.
- Resistance skills training, which teach students to identify pressures and assertively resist influences towards risk-taking health behaviours.
- Life skills training, which helps students to develop generally, and teaches broad social skills such as communication skills, human relations skills and ways of solving interpersonal conflict.
- Norm setting programs, which help establish conservative norms within the group and focus on correcting erroneous assumptions that ‘everyone is doing it’.
- Counselling and assistance programs, which use peer help methods.
- Pledge programs, which encourage students to state publicly that they will behave in a certain way as a form of social reinforcement.
- Value clarification programs, which examine tensions between individual’s stated values and the likely consequences of risk-taking health behaviour, and seeking to demonstrate that the two are incompatible.

Overall, the paper concluded that ‘traditional’ pedagogic health programs are effective in increasing children’s knowledge of health topics but do not produce lasting behavioural changes. The report suggested that more innovative programs could bring about significant changes in health behaviour but that it is difficult to quantify the impact of the interventions from the results presented in the reviews identified.
The report suggested that a promising strategy for school-based health promotion campaigns is likely to be a generic or holistic approach with a core mental health or emotional well-being program delivered throughout the school years. This should be combined with knowledge-based modules on smoking, drugs, sexual behaviour, accidents and other aspects of ‘looking after yourself’, such as diet and exercise. Further trials of this approach need to evaluate their impact in combination with community-based interventions. This model has many features in common with WHO’s Health Promoting Schools initiative.

Alcohol abuse campaigns:
Effects of alcohol prevention campaigns in schools, in terms of behavioural outcomes, are modest at best. The traditional pedagogic programs produced changes in knowledge similar to those produced by the more innovative programs, but they were much less effective in terms of behavioural change.

Substance abuse campaigns:
The results are consistent with the findings of reviews in other areas. When knowledge is the outcome of interest, many programs are effective in bringing about changes. Change in knowledge, however, does not necessarily translate into changes in behaviour, and this calls into question the assumptions of traditional, rational methods of behaviour change.

Students are less receptive to adult-led campaigns than to peer-led campaigns, and even more resistant to authority figures such as the police advising them to change their attitudes and behaviours. Interactive programs (with perhaps some skills training) led by people not perceived by students to be in authoritarian roles or establishment positions appear to work better. Motivation (as measured by volunteer status) is a useful marker in successful behavioural change.

Tobacco control campaigns:
While the traditional methods focused on information provision produce effective results in terms of influencing knowledge acquisition, they were much less effective than the innovative methods in changing behaviours. Traditional approaches produced greater knowledge change in the short-term but smaller behavioural changes than the newer approaches in general. The report suggests adopting social reinforcement programs (McAlester et al 1980). The use of programs based on social or developmental approaches are also recommended as effective alternatives.

Sexual health:
Very few evaluations have been conducted of sexual health campaigns in schools, and most existing studies were conducted in North America. Results show that many factors, in addition to school-based campaigns, influence children’s and young adults’ behaviours with the result that campaigns may only have only a small impact on behaviours.
Accident prevention reviews:
The report points to conflicting findings, perhaps attributed, in part, to the large number of methodologically flawed studies. For example, one review showed road education to be effective while another suggested such interventions were ineffective. Educational interventions aimed at increasing bicycle helmet use were found to be generally effective. There was some ‘fairly convincing evidence’ (from one review) that a number of other educational interventions aimed at young children are effective, suggesting that young children can be taught using school-based campaigns to wear bicycle helmets, ride bicycles more safely, wear seat-belts, learn to swim and to take care to avoid burns.

The report says, however, that there are difficulties in predicting responses of adolescents to the content of different campaigns programs highlighted by the reviews. For example, one review showed that interventions designed to improve the safety of young drivers could actually produce the opposite effect; that is, higher accident or mortality rates in the intervention groups. Two reviews included studies on school-based interventions combined with community interventions and concluded that this could be a more promising approach. (Also see Elliott, 1989).

Educating young people about drugs: A systematic review.
The report assessed the effectiveness of campaigns directed at the prevention (or reduction of use) of illicit substances by young people, and campaigns directed at reducing harm caused by continuing use. [Methods used are included with the paper].

The majority of studies identified were evaluations of campaigns in schools about alcohol, tobacco and marijuana use. These studies were methodologically stronger than interventions targeting other drugs and implemented outside schools.

The report concluded that the impact of evaluated interventions was small with dissipation of program effects over time. Interventions targeting hard to reach groups have not been evaluated adequately, and there is still insufficient evidence to assess the effectiveness of the range of approaches to drugs education. The report concluded that there is a need to target interventions to reflect the specific needs and experiences of recipients.

Coleman et al (1996)
The effectiveness of interventions to prevent accidental injury to young persons aged 15-24 years: Review of the evidence.
This review assessed the effectiveness of campaigns aimed at preventing accidents, or injury minimisation, among adolescents and young adults aged 15 to 24 years. It is an important report because it compares direct interventions with ‘educational’ campaigns. Interventions were classified into three broad categories: engineering, educational and enforcement. Outcomes assessed in the review included: decrease in rates of accidents; reduction in the severity of injury; and increased knowledge and attitudinal change.

Not surprisingly, the report concluded that the most effective interventions appear to be legislative or regulatory controls, which in road, sports and workplace settings are
associated with fewer accidental injuries in adolescent populations, although reported changes in numbers of accidents occurring may be because of variations in exposure.

Interventions evaluated in well-designed trials for which there was good evidence to support their recommendation were: raising the minimum legal drinking age between 18-21 years, motorcycle helmets, environmental engineering changes to sports environment and prophylactic injury prevention programs.

Interventions in which there was fair evidence to support their recommendation were: bicycle helmets, area wide urban traffic safety, sped control hubs, curfew, airbags and seat belts, subsidised public transport, warning notices combined with low cost compliance measures to encourage use of protective devices, smoke detectors.

Interventions in which there was good or fair evidence to reject their recommendation were: formal enhanced pre-car licence driver training and education, driver improvement programs for problem drivers, and periodic motor vehicle safety checks and random roadside inspections.

Thus, the report supports Shanahan et al’s (2000) suggestion that communication campaigns may increase salience of a health issue, but that other interventions are necessary to achieve behavioural outcomes.

**Sowden and Arblaster (2001a).**

**Community interventions for preventing smoking in young people.**

The report determined the effectiveness of community interventions in preventing the uptake of smoking in young people. The authors examined the effectiveness of community interventions compared to no intervention in influencing the smoking behaviour of young people. Secondly, the report examined the effectiveness of community interventions compared to other single component interventions (e.g. school-based programs) in influencing smoking behaviour of young people. [The report includes the method of selecting studies for review].

Of nine studies comparing community interventions with no interventions, two studies (part of cardiovascular disease prevention campaigns) reported lower smoking prevalence. Of three studies comparing community interventions with school-based campaigns, only one found differences in reported smoking prevalence. One study reported a lower rate of increase in prevalence in a community receiving a multi-component intervention compared to a community exposed to a mass media campaign alone. One study reported a significant difference in smoking prevalence between a group receiving a media, school and homework intervention compared with a group receiving the mass media component only.
The report concluded that there is some limited support for the effectiveness of community interventions in helping prevent the uptake of smoking in young people. The report recommended that:

- Communication planners build upon results of existing programs that have been shown to be effective rather than repeating methods that have achieved limited success;

- Programs need to be flexible and recognise difference between communities so that the various components of a given campaign can be modified to achieve acceptability;

- Developmental work with representative samples of those individuals to be targeted should be carried out so that appropriate messages and activities can be implemented;

- Campaign messages and activities should be guided by theoretical constructs about how behaviours are acquired and maintained (for example, social learning theory); and

- Community activities must reach the intended audience if they are to stand any chance of success influencing the behaviour of that audience.

Sowden and Arblaster (2001b)
Mass media interventions for preventing smoking in young people.

The report assessed the effectiveness of mass media communication campaigns in preventing the uptake of smoking in young people. [The method of selecting studies is included with the report].

Two studies concluded that the mass media were effective in influencing the smoking behaviour of young people. Both of the effective campaigns had a solid theoretical base, used formative research in designing the campaign messages, and message broadcast was of reasonable intensity over extensive periods of time. In one study, provocative messages were developed and used to cause affective personal reactions. It was hypothesised that this would lead to discussion and interpersonal communication, which would lead to reductions in smoking.

In the other study reporting reductions in smoking behaviour, a program based on the social influences or social learning theory approach was developed.

The report concluded that there is some evidence the mass media can be effective in preventing the uptake of smoking in young people, but overall the evidence is not consistently strong.

The report recommended the following for communication campaign planners:

- Build upon elements of existing campaigns that have been shown to be effective rather than repeating methods that have been successful;
• Developmental work with representative samples of the target audience should be carried out so that media messages appropriate to the group can be created;

• Campaign messages should be guided by theoretical concepts about how behaviours are acquired and maintained;

• Media messages must reach the target audiences (via media channels preferred by the target audiences at the most appropriate times);

• Broadcasting of campaigns should be of sufficient intensity, frequency and duration to have a reasonable chance of being effective;

• Preference for either radio or television is likely to depend on age.

Interventions for preventing tobacco smoking in public places.
The report evaluated the effectiveness of campaigns to reduce tobacco consumption in public places. [The method of selecting studies for review is included with the report].

The most effective campaigns used comprehensive, multi-component approaches to implement policies banning smoking within institutions. These were where institutions developed, resourced and supported comprehensive programs to achieve compliance with a policy decision to ban smoking. Two hospitals in Baltimore, USA, showed high rates of success from a strategy that included education, dissemination of information, training for managers, and support in quitting for individual smokers. Less comprehensive strategies, such as posted warnings and educational material, had a moderate effect. Five studies showed that prompting individual smokers had an immediate effect, but such strategies are unlikely to be acceptable as a public health intervention.

The report concluded that carefully planned and resourced, multi-component campaigns effectively reduced smoking within public places. Less intensive strategies have a partial effect, but there is little effect from regulations or signage not supported by other means. Requests to smoking individuals can reduce short-term smoking but are not an acceptable public health strategy for reducing exposure to smoke.

All the studies used relatively weak experimental designs. Most studies were undertaken in the USA and there is a need to identify ways in which these strategies could be adopted and used in countries with different attitudes to tobacco use. The report recommended that future studies should consider the use of more rigorous evaluation methods.
Cochrane Tobacco Addiction Group (1999)
Preventing the uptake of smoking in young people.

The report noted that the uptake of smoking is a complex process and is rarely a single, distinct or discrete event. The influence of family members and peers is strongly associated with the decision to start smoking. The report found the following:

School based campaigns:
School-based programs have achieved limited success, although social reinforcement and social norms type programs seem to be more successful than simple knowledge-based campaigns. These former ‘social’ campaigns include curricular components on the short-term health consequences of smoking combined with information on the social influences that encourage smoking. Training on how to resist the pressures to smoke was also included.

The authors noted that, in addition to considering the specific components that should be included in a campaign, other significant issues need to be addressed. These include training given to teachers who deliver the campaign, and research on how well each component is delivered and implemented. This information is important in assisting effectiveness. Consideration must also be given to the age of young people targeted.

Mass media campaigns:
Mass media campaigns can influence smoking behaviour but have limited effectiveness. Both the intensity and duration of the messages delivered appear to be important factors. In evaluating these campaigns, the authors noted difficulties with evaluation research methods such as high dropout rates, and differences between groups in baseline smoking rates.

Regulation:
Enforcement of the law relating to cigarette sales to underage youth can have an effect on retailer behaviour but the impact on smoking behaviour is likely to be small. Community approaches involving different intervention components can influence smoking behaviour, particularly when multiple sites within a community are targeted.

Community campaigns:
Despite methodological problems in evaluation, there is some limited support for the effectiveness of community programs to prevent the uptake of smoking in young people. Although there were few similarities across studies in terms of individual components, two studies that were successful in influencing smoking rates both targeted multiple sites within the community (such as schools, work sites and churches). Differing media were used simultaneously in order to reinforce messages.

Community interventions are likely to be influenced by local factors and are therefore difficult to replicate in other settings. Specific components, however, involving schools, work-places, the media and other community groups, can be modified so as to achieve acceptability with identified target groups.

Most programs have targeted 11 to 17 year olds. Yet attitudes to smoking and experimentation with cigarettes may already be established by this time. The
implementation of programs before regular patterns of smoking behaviour are formed should be considered, which may even involve targeting children as young as 4 to 8 years of age.

The report argued that prevention programs should be aimed at the social factors that influence decisions to smoke, and provide training to develop the skills necessary to resist the social pressures to smoke and drink alcohol. The importance of the school environment needs to be recognised and schools should aim to create supportive environments for their pupils. Parents and other community members should be encouraged to participate in local initiatives so as to create consistent messages. Campaigns to encourage smoking cessation, as well as targeting smoking prevention, could be developed. Mass media campaigns can be used to reinforce anti smoking messages.

Dobbins et al (1996)
The effectiveness of community-based health projects: A systematic review.

This report aimed to summarise evidence about the effectiveness of community based heart health campaigns in public health nursing practices in Canada. The review focused on campaigns where community involvement is used in implementing strategies. The campaigns had a clear theoretical framework (social learning theory, diffusion of innovation theory) and involved the mass media, health campaigns and screening clinics. [The method of selecting studies is included in the review].

There is a wide diversity of evaluation research reviewed and it is difficult to generalise. Seventeen heart health projects were included in the review.

The authors concluded that community-based initiatives can have positive effects on a variety of heart health outcomes such as decreased smoking rate, increased physical activity level, smoking cessation, weight loss, decreased risk assessment score, decreased blood pressure, and decreased serum cholesterol level. Outcome measures that were most positively affected were program process measures, health risk behaviour change, and physical health status.

There was evidence to support the use of multiple strategies that include mass media and issue-specific health classes. The findings of the review, however, demonstrated a diminishing effect over a period of time greater than 10 years.

Shepherd et al (1999)
Interventions for encouraging sexual lifestyles and behaviours intended to prevent cervical cancer. Cochrane Review.

The report evaluated the effectiveness of health education campaigns promoting sexual risk reduction behaviours among women to reduce transmission of HPV, which is one of the major risk factors for cervical cancer. [The method of selecting studies is included in the report].

All studies reviewed had the primary aim of preventing HIV and other STDs rather than cervical cancer per se. Of the studies evaluated, all showed a statistically significant positive effect on sexual risk reduction, typically with increased use of
condoms. This positive effect was generally sustained up to three months after intervention. Factual information provision delivered with sexual negotiation skill development is more effective in comparison to no treatment or groups receiving generic health promotion.

The report concluded that educational campaigns, in which information provision is complemented by development of sexual negotiation skills, and targeted at socially and economically disadvantaged women, can encourage at least short-term sexual risk reduction behaviour. This has the potential to reduce the transmission of HPV, thus possibly reduce the incidence of cervical carcinoma. Thus, health education interventions in which factual information on STD transmission and prevention is presented alongside skill development and motivation building can achieve short-term increases in reported condom use for vaginal intercourse.

The report noted that information provision is a useful first step, but factors such as attitudes, motivation, the influence of significant others, wider social influences, as well as practical skills, all play an important part in the ability to change behaviour.

The findings of this review are similar to those conducted by Windgood et al (1996) that examined a range of sexual risk reduction interventions. This report found that successful interventions were those that were based upon socio-psychological models of behaviour, paid attention to gender issues in the negotiation of safer sex, employed peer educators and used multiple intervention sessions.

The report recommended greater attention to gender and culture issues, greater integration between sexual health and cervical cancer information, and longer time spans for interventions.

A review of the effectiveness of print material in changing health-related knowledge, attitudes and behaviour.

The report identifies five review papers and 43 studies that met the defined inclusion criteria. [The method for including studies is included in the paper].

The authors conclude that pamphlets are potentially effective in changing knowledge, attitudes and behaviour for a wide range of health related issues, but the evidence is very mixed.

They argue that effectiveness varies according to three factors. Pamphlets were more likely to be effective when used for patient education than in public education. The effects on behaviour varied according to whether a pamphlet was used alone or as an addition to another form of intervention. Pamphlets appeared to be more consistent in changing knowledge and attitudes than changing behaviour.
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