



Mental illness in the news and the information media

A CRITICAL REVIEW

Jane Pirkis and Catherine Francis
April 2012

This critical review was written by Jane Pirkis and Catherine Francis. It is a review of an earlier critical review published in 2001. The work was commissioned by the Hunter Institute of Mental Health as part of the Mindframe National Media Initiative, with funding from the Australian Government Department of Health and Ageing.

The critical review is available for download from the Mindframe website at www.mindframe-media.info

Mental Illness in the News and Information Media: A Critical Review

ISBN: 978-1-74241-754-7

Online ISBN: 978-1-74241-755-4

Publications Approval Number: D0824

Copyright Statements:

Paper-based publications

© Commonwealth of Australia 2012

This work is copyright. You may reproduce the whole or part of this work in unaltered form for your own personal use or, if you are part of an organisation, for internal use within your organisation, but only if you or your organisation do not use the reproduction for any commercial purpose and retain this copyright notice and all disclaimer notices as part of that reproduction. Apart from rights to use as permitted by the Copyright Act 1968 or allowed by this copyright notice, all other rights are reserved and you are not allowed to reproduce the whole or any part of this work in any way (electronic or otherwise) without first being given the specific written permission from the Commonwealth to do so. Requests and inquiries concerning reproduction and rights are to be sent to the Online, Services and External Relations Branch, Department of Health and Ageing, GPO Box 9848, Canberra ACT 2601, or via e-mail to copyright@health.gov.au.

Internet sites

© Commonwealth of Australia 2012

This work is copyright. You may download, display, print and reproduce the whole or part of this work in unaltered form for your own personal use or, if you are part of an organisation, for internal use within your organisation, but only if you or your organisation do not use the reproduction for any commercial purpose and retain this copyright notice and all disclaimer notices as part of that reproduction. Apart from rights to use as permitted by the Copyright Act 1968 or allowed by this copyright notice, all other rights are reserved and you are not allowed to reproduce the whole or any part of this work in any way (electronic or otherwise) without first being given the specific written permission from the Commonwealth to do so. Requests and inquiries concerning reproduction and rights are to be sent to the Online, Services and External Relations Branch, Department of Health and Ageing, GPO Box 9848, Canberra ACT 2601, or via e-mail to copyright@health.gov.au.



Table of contents

Executive summary	2
Background	2
Method.....	2
Key findings	3
Conclusions	3
Chapter 1: Introduction	4
Background	4
Purpose of the review	4
Scope of the review.....	4
Structure of the report.....	5
Chapter 2: Method	6
Article selection.....	6
Data extraction and synthesis.....	6
Chapter 3: Extent and nature of the presentation of mental illness in the news and information media	7
Overview of studies.....	7
Key findings	7
Chapter 4: Significance of the news and information media in shaping knowledge, attitudes and behaviour regarding mental illness	13
Overview of studies.....	13
Key findings	13
Chapter 5: Negative impacts of the presentation of mental illness in the news and information media on knowledge, attitudes and behaviours	15
Overview of studies.....	15
Key findings	15
Chapter 5: Positive influences of the news and information media on knowledge, attitudes and behaviours	18
Overview of studies.....	18
Key findings	18
Chapter 6: Discussion and conclusions	21
Summary of key findings.....	21
Implications of the findings for policy and practice.....	21
Limitations of the review	22
Conclusions	23
References	24
Appendix 1: Details of individual studies included in the review	32

Executive summary

Background

The mass media is influential in shaping people's knowledge, attitudes and behaviour. Clarifying the way in which the media informs and misinforms the public in an area like mental illness is particularly important, because community understanding of mental disorders is less than optimal and stigma and discrimination are not uncommon.

The current review considers the news and information media and addresses four research questions:

- (1) How extensive is the presentation of mental illness in the news and information media, and what is the nature of this presentation?
- (2) How important is the news and information media in shaping knowledge, attitudes and behaviour regarding mental illness?
- (3) Does the news and information media have a negative impact on people's knowledge, attitudes and behaviours regarding mental illness?
- (4) Can the news and information media have a positive influence on community knowledge, attitudes and behaviours regarding mental illness?

Method

Article selection

Searches of MEDLINE, EBSCOHOST and PSYCINFO were conducted from these databases' respective years of inception to January 2012. The search aimed to retrieve English-language articles containing the following elements (truncated search terms are listed in brackets):

- Media (media or newspaper* or magazine* or film* or movie* or television* or radio* or Internet* or cyber* or web*)
- Mental illness (mental or psychiatr* or depressi* or schizo* or anxi* or mood or obsessive compulsive disorder* or eating disorder* or anorexia* or bulimia*)

Potentially relevant articles were retrieved by this means, and their reference lists scanned for further possible articles. Efforts were also made to discover unpublished articles of relevance.

Data extraction and synthesis

The following common data were extracted from each article: author(s) and date; study question(s); country; mental disorder(s) considered; media type(s) considered; study method; and key findings. Where several articles referred to the same study, these details were only recorded once. These data were recorded in a table that can be found at Appendix 1.

The findings from each study were considered in terms of the way in which they informed the four research questions articulated in the previous chapter.

Key findings

The review demonstrated that there is a tendency for different types of news and information media to present mental illnesses in a way that promotes stigma (e.g., by conflating it with violence and crime) and/or perpetuates myths about mental illness (e.g., by presenting information that is inaccurate about, say, treatment and prognosis). There are differences depending on the type of disorder presented. Undifferentiated mental disorders (where the illness or illnesses is not specified) and schizophrenia appear to receive the poorest treatment in the media. There is some evidence that reporting practices have improved over time.

The review indicated that the news and information media is an important source of information about mental health and illness, both for the general population and for people with mental illness. People rank it highly as an influential information source, and it is usually only 'trumped' by more direct sources such as mental health professionals. Its influence is sometimes tempered by direct or indirect personal experience with mental illness.

Taking the above two findings (i.e., the fact that mental illness is portrayed in a less-than-ideal way in the news and information media and the fact that the media is an important source of information about mental illness), it is not surprising that the review also found that the news and information media can have a negative influence on the way people think about mental illness. The news and information media can encourage people to think that those with mental illness are violent and dangerous, and can foster a desire for social distance from them.

The review also considered the potential for the news and information media to have a positive impact on knowledge, attitudes and behaviour. It found that mass media stigma reduction campaigns, web-based mental health literacy programs and documentary films can all have positive effects, particularly if they include personalised stories (as opposed to education alone).

Conclusions

The news and entertainment media often present a distorted and inaccurate picture of mental health and illness. Because these media sources are influential, this can have the effect of perpetuating stigma about mental illness. Explicit efforts to use the media to influence community knowledge, attitudes and behaviours relating to mental illness in positive ways have demonstrated some success. Mental health experts and media professionals should collaborate to reduce negative portrayals of mental illness, and increase positive and informative representations of mental health issues.

Chapter 1: Introduction

Background

The mass media is influential in shaping people's knowledge, attitudes and behaviour. Clarifying the way in which the media informs and misinforms the public in an area like mental illness is particularly important, because community understanding of mental disorders is less than optimal and stigma and discrimination are not uncommon. The current review explores the picture of mental illness that is painted by the media, how the general public and people with mental illness interpret this picture, and how this impacts upon knowledge, attitudes and behaviour. The review does this in the context of the news and information media; the entertainment media is not considered here.

Purpose of the review

This literature review aims to identify, evaluate and interpret the available research evidence regarding the presentation of mental illness in the media. The review addresses four key research questions:

- (1) How extensive is the presentation of mental illness in the news and information media, and what is the nature of this presentation?
- (2) How important is the news and information media in shaping knowledge, attitudes and behaviour regarding mental illness?
- (3) Does the news and information media have a negative impact on people's knowledge, attitudes and behaviours regarding mental illness?
- (4) Can the news and information media have a positive influence on community knowledge, attitudes and behaviours regarding mental illness?

The review collates and analyses the body of literature that addresses these questions. The studies that make up this body of literature can be thought of as falling into three categories. Traditional 'content analysis studies' which consider what information is presented in the media and how this information is framed have been employed to address Question 1. Studies that could loosely be termed 'audience reception studies' have been used to examine Question 2; in this context, these studies typically investigate the extent to which people recall seeing or hearing media stories about mental illness and the extent to which they believe the media has influenced their knowledge, attitudes and behaviour.¹ 'Media influence studies' which consider the impact of particular types of media presentation have been used to explore Questions 3 and 4.

Scope of the review

The review considers six types of news and information media: newspapers; magazines; film and television; radio; the Internet; and mixed media. Within each of these media types, the review examines the presentation, reception and impact of articles on undifferentiated mental disorders (where the illness or illnesses is not specified) and specific disorders (e.g., schizophrenia, depression, eating disorders). The review considers media presentations that

¹ In other areas, 'audience reception studies' go further than this to explore how people receive and interpret particular stories. This type of analysis is less evident in the mental illness field.

may inform (or misinform) people about mental illness, but does not extend to media presentations that are used in a clinical context (e.g., websites or self-help books that offer treatment options for people with mental illness). Similarly, it does not consider media activity that may have an impact on the mental health of those who interact with it, but does not explicitly include presentations of mental illness (e.g., cyber-bullying or Internet addiction).

Several previous reviews have been published in the area of mental illness and the mass media (Klin and Lemish, 2008, Stout et al., 2004, Wahl, 1992, Nairn, 2007, Sieff, 2003), including our own in 2001 (Francis et al., 2001). Numerous critical commentaries and editorials have also been written (Anderson, 2003, Wahl, 2003, Cutcliffe and Hannigan, 2001, Harper, 2008, Clarke, 2004, March, 1999, Stuart, 2006, Miller, 2007, Byrne, 1997, Ferriman, 2000, O'Grady, 1996, Friedman, 2009, Jakovljevic et al., 2010, Brawley and Martinez-Brawley, 1984, Marcos, 1989, Austin and Husted, 1998, Kutner and Beresin, 2000, Dizdarevic, 2010). The current review updates and expands on these earlier works by considering a fuller range of news and information media and by examining reporting of specific mental illnesses.

Structure of the report

The remainder of this report describes the way in which the review was conducted and outlines its findings. Chapter 2 describes the method, Chapters 3-6 outline its findings as they relate to each of the above four research questions, and Chapter 7 discusses and interprets the findings.

Chapter 2: Method

Article selection

Searches of MEDLINE, EBSCOHOST and PSYCINFO were conducted from these databases' respective years of inception to January 2012. The search aimed to retrieve English-language articles containing the following elements (truncated search terms are listed in brackets):

- Media (media or newspaper* or magazine* or film* or movie* or television* or radio* or Internet* or cyber* or web*)
- Mental illness (mental or psychiatr* or depressi* or schizo* or anxi* or mood or obsessive compulsive disorder* or eating disorder* or anorexia* or bulimia*)

Potentially relevant article were retrieved by this means, and their reference lists scanned for further possible articles. Efforts were also made to discover unpublished articles of relevance.

Data extraction and synthesis

The following common data were extracted from each article: author(s) and date; study question(s); country; mental disorder(s) considered; media type(s) considered; study method; and key findings. Where several articles referred to the same study, these details were only recorded once. These data were recorded in a table that can be found at Appendix 1.

The findings from each study were considered in terms of the way in which they informed the four research questions articulated in the previous chapter.

Chapter 3: Extent and nature of the presentation of mental illness in the news and information media

Overview of studies

'Content analysis studies' of the portrayal of mental illness in the media have been conducted in many countries around the world (Australia, New Zealand, the United Kingdom, Ireland, the United States, Canada, Italy, Germany, Sweden, Turkey, Croatia, Serbia, the Czech Republic, Slovakia, Brazil and Jamaica). Typically, they have examined how mental illness is 'framed' in samples of media articles. Some have used qualitative research techniques, such as discourse analysis or textual analysis, to explore this. Others have employed quantitative methods to formally rate the quality of these media articles against pre-determined criteria. Most have focused on a particular type of media (e.g., newspapers), but some have considered 'the media' in general (i.e., mixed media). Most have considered undifferentiated mental disorders, but some have focused on specific disorders.

Key findings

Newspapers

Numerous international studies have examined the portrayal of mental illness in newspapers. The majority of these have considered undifferentiated mental disorders and have found their overall presentation to be negative and reflective of stigmatising attitudes. Most commonly, this negative framing has been found to manifest itself in mental illness being conflated with violence, crime, unpredictability and dangerousness (including harm to self or others), and/or representation of people with mental illness as passive victims deserving of pity (Ward, 1997, Goulden et al., 2011, Matas et al., 1986, Olstead, 2002, Paterson, 2007, Meagher et al., 1995, Coverdale et al., 2002, Nairn et al., 2006, Farrow and O'Brien, 2005, Bilic and Georgaca, 2007, Nawkova et al., 2009, Allen and Nairn, 1997, Wahl et al., 2002, Corrigan et al., 2005, Slopen et al., 2007, Angermeyer and Schulze, 2001, Williams and Taylor, 1995, Kalucy et al., 2011, Nawková et al., 2012).²

The single Australian study that looked exclusively at newspaper reporting of mental illness produced findings that were consistent with this body of literature. Hazelton (1997) retrieved 490 relevant articles published in two newspapers, one national (the *Australian*) and one local (the *Launceston Examiner*). He found that the most common themes related to 'disorder, crisis and risk'.

Studies that have considered textual and other devices that contributed to the above picture of negativity have identified the tone and placement of the articles as important (Day and Page, 1986, Nairn et al., 2006, Allen and Nairn, 1997). These studies have also revealed a

² The study by Nawkova et al (2012) included newspaper and magazine articles, but newspaper articles dominated the sample.

tendency for people with mental illness to be distinguished from others ('us' versus 'them') (Olstead, 2002, Allen and Nairn, 1997).

Several studies have explored the presentation of specific disorders in newspapers. Studies on the reporting of schizophrenia have found it to be consistent with the general picture for undifferentiated mental disorders; articles on schizophrenia have been found to be presented as 'bad news' stories, and emphasise violence and crime (Goulden et al., 2011, Chopra and Doody, 2007a, Stark et al., 2004). Over and above this, myths about schizophrenia are often perpetuated. Sometimes this occurs when inaccurate information about the condition is presented, and sometimes it occurs because the term 'schizophrenia' is used metaphorically to indicate some sort of discordance (thus implying that the disorder involves a split personality) (Boke et al., 2007, Chopra and Doody, 2007b, Dubugras et al., 2011a, Dubugras et al., Duckworth et al., 2003, Magliano et al., 2011, Wahl, 1996, Clement and Foster, 2008). Studies concerned with eating disorders have shown that they are also presented in a less-than-ideal manner; typically anorexia is presented as the domain of young, white females who are victims (Saguy and Gruys, 2010, Shepherd and Seale). Similarly, a study of postpartum disorders (depression and psychosis) exaggerated symptoms and behaviours and tended to focus on women who had committed acts of violence against their children (Holman, 2011).³ By contrast, studies that have considered newspaper portrayal of depression have shown that it is likely to be presented in a 'straighter' way, often with accurate explanations of the causes and treatment of the disorder and examples of stories of recovery (Goulden et al., 2011, Bengs et al., 2008, Rowe et al., 2003).

Various studies have considered whether particular factors are associated with better or worse portrayal of mental disorders in newspapers. Some have examined whether reporting has changed over time, and the majority of these suggest that there has been a little improvement but themes of danger still dominate (Matas et al., 1986, Goulden et al., 2011, Wahl et al., 2002). Some have considered whether reporting improves when particular 'actors' contribute to the article. These suggest that giving a person with mental illness a 'voice' in the article can help (Nairn and Coverdale, 2005, Chopra and Doody, 2007a), but expert opinion (e.g., in the form of verbal advice or written reports from medical or legal professionals) is often presented in a selective fashion (Nairn et al., 2001, Nairn, 1999). A study by Slopen et al (2007) examined whether the age of the person with mental illness portrayed in a newspaper article made a difference, and found that articles concerning children and adolescents were more likely to show evidence of responsible reporting than articles about adults.

In addition, several studies provide evidence for the impact of contextual factors on the way in which newspaper stories are framed. Three have used case studies of the reporting of particular event (i.e., the introduction of legislation in the United Kingdom which placed greater restrictions on people with a mental illness than previous legislation, closure of a psychiatric hospital in Jamaica, a Royal Commission into deep sleep therapy at an Australian private hospital) (Foster, 2006, Whitley and Hickling, 2007, Lupton, 1993). These studies all demonstrated reporting that was sympathetic towards people with mental illness, albeit in a somewhat paternalistic way. Two additional studies considered reporting of research into the genetic basis for mental health problems (Wilde et al., 2011, Conrad, 2001).⁴ These

³ The study by Holman (2011) included newspaper and magazine articles, but newspaper articles dominated the sample.

⁴ The study by Conrad et al (2001) included newspaper and magazine articles, but newspaper articles dominated the sample.

studies found that relevant articles were characterised by a 'genetic optimism' that served to create unrealistic expectations about future scientific breakthroughs on the one hand and present a picture of gloomy determinism on the other.

Magazines

A number of studies have considered at the nature of articles related to mental illness published in popular periodicals, mostly in North America. Wahl and Lincoln-Kaye (1992) looked at the portrayal of all mental disorders and found that, over time, there was an increased emphasis on specific disorders. These articles improved in quality over time, demonstrating a decrease in the use of stigmatising language.

Other studies have focused on specific disorders. Wahl (2000) looked at the way in which obsessive compulsive disorder was dealt with in articles in popular magazines. Articles that directly dealt with the disorder generally presented accurate information about etiology, symptoms and treatment. However, these were outnumbered by articles that labeled incidents of criminal behaviour (e.g., stalking) as obsessive or compulsive.

Clarke and Gawley (2009) looked at the presentation of depression in high circulation magazines with diverse audiences and found that, over time, depression was framed in a more medicalised fashion. Clarke then conducted a series of studies on the portrayal of depression in three sub-groups, namely children (Clarke, 2010a), males (Clarke, 2009) and African-Americans (Clarke, 2010b). She found that, in the main, the first two groups of articles dealt appropriately with the causes of and treatment for depression, and encouraged help-seeking. The third group of articles, however, presented depression in a confusing manner that was often linked to cultural identity.

Wahl et al (1995) examined magazine articles on schizophrenia, and found them to be limited in number and exposure. Symptoms, causes and treatments were generally described in an accurate fashion. However, personal accounts of schizophrenia were limited, insufficient attention was devoted to community-based treatment options, and opportunities to dispel common myths about schizophrenia (e.g., that it involves multiple personalities) were generally missed.

In the only Australian study of magazines, Gattuso et al (2005) searched *Cosmopolitan* and the *Australian Women's Weekly* for articles mentioning depression that were published in 1998-99 and 2001-02. They deliberately chose these two because they target younger and older women, respectively. They found that the way in which depression was portrayed in these magazines was not consistent with the depression literacy literature in the *National Action Plan for Depression*. The former framed depression as an individual problem that was largely amenable to self-management, with support from social networks. The latter emphasised biomedical and psychosocial approaches and help-seeking from professionals.

Documentaries and television news

Comparatively little attention has been devoted to presentation of mental illness in documentary films and on television news and current affairs shows. Stastny (1998) conducted a descriptive study of the way in which people were depicted in documentaries about mental illness. He demonstrated that early films were characterised by objectification and exploitation, but that more recent films involve personalised stories.

The only identified studies on television news and current affairs were conducted in Australia. Henson et al (2009) conducted content and frame analyses of 538 items that mentioned mental illness that were broadcast on Australian free-to-air television stations in 2005-07. Overall, 55% of these items were positive and 'recovery focused', 29% were neutral, and 12% were negative.

In a follow-up study, Henson et al (2010) examined a subset of the above items (n= 264) which included representations of an individual with mental illness. They investigated whether there were differences in the nature of portrayal depending on the age of the person described. Compared with adults, media portrayal of young people was more mixed. Positive themes were apparent in only 29% of items including young people, as opposed to 66% of the full sample. The figures for negative themes were reversed (26% for young people, 9% for the full sample). However, when the analysis was limited to first-person depictions, these differences disappeared.

Radio

A single study has considered how mental illness issues are presented on radio. Brooks (2009) focused on eating disorders and identified talk-back discussions on this topic on four major radio stations in the United Kingdom between 2004 and 2007. Overall, the study demonstrated that people with eating disorders utilised various discursive practices that portrayed them as passive individuals who assigned agency from themselves to the disorder itself.

The Internet

The Internet is obviously a newer medium than traditional media like newspapers, television and radio. The way in which information about mental illness is presented on it differs too; numerous websites have proliferated which provide guidance to people with undifferentiated and specific mental disorders. Unlike traditional news and information outlets, where media professionals (e.g., journalists, editors, producers) are predominantly responsible for generating material, the Internet is the domain of the general population. The Internet is also a more volatile and interactive medium. This has implications for the amount of information produced, as well as for the nature and quality of that information. It also means that optimising the information that is 'out there' presents problems; various resources can be provided to media professionals working in the traditional media arena, but targeting information to the plethora of organisations and individuals who may be posting information on ever-changing websites is more difficult.

For these reasons, this review treats the presentation of mental illness on the Internet somewhat differently from the presentation of mental illness in other media. Although there is a substantial body of literature involving empirical studies that have considered Internet presentations, these studies are not considered individually. Instead, recourse is made to an excellent review by Reavley and Jorm (2010) conducted in 2010. At that time, these authors identified 31 individual studies that assessed the quality of websites providing information about mental disorders.

The studies identified by Reavley and Jorm (2010) examined websites that dealt with mental illness in general, and with affective disorders, anxiety disorders, eating disorders, substance use disorders and schizophrenia/psychosis. Studies differed in the way in which they selected sites (e.g., some examined all sites that met their criteria and others took the 'top'

sites identified by particular search engines) and in the way in which they rated quality (e.g., most used expert assessments and formal rating instruments, but the definitions of 'expert' and the emphasis of the instruments varied). Twenty three studies (74%) concluded that the overall quality of sites was inadequate; sites about undifferentiated mental disorders and anxiety disorders appeared to be particularly poor, whereas sites about affective disorders (particularly bipolar disorder) appeared to be of better quality and had made marked improvements over time. Some studies found that sites owned by government departments, professional bodies and charitable organisations were of the highest quality, whereas others found that site ownership made no difference.

Mixed media

Some of the earliest international studies in this area have involved examinations of mixed media. In the United States, Taylor (1957) considered presentations of mental illness in a selection of newspapers, magazines, and radio and television stations and identified a number of themes. The most prominent of these was that people with mental illness are different (the 'us' versus 'them' frame, mentioned above). Nunnally (1957, 1961) undertook a similar exercise, and also revealed a distorted picture in which the symptoms of mental illness symptoms were exaggerated, its causes and treatments were oversimplified, and it was usually presented in the context of horror, sin and/or violence.

The most commonly-cited study of mixed media was conducted by Philo and colleagues from the Glasgow Media Group (Philo et al., 1996, Philo et al., 1994). These investigators looked at Scottish media coverage of mental illness for one month in 1993, sampling articles from both news and information media and entertainment media (reports from selected newspapers, magazine stories, and television news and current affairs shows and entertainment programs). They conducted a content analysis which revealed five different themes: 'comic images'; 'violence/harm to others'; 'violence to self'; 'prescriptions for treatment/advice/recovery'; and 'criticisms of accepted definitions of mental illness'. Overwhelmingly, articles fell into the second of these thematic categories.

A study by Renzulli et al (2006) was more specific in scope. This study considered news coverage of New York mental health resources in print and broadcast media in the two weeks after September 11, 2001. It found that only a minority of articles about the attacks did not mention mental health issues, and only a very small proportion provided help information.

A more recent study from Australia produced more positive findings, albeit with some caveats. The Media Monitoring Project examined the way in which Australian newspaper, television and radio sources portrayed mental illness during a 12-month period in 2000/01 (Francis et al., 2004, Pirkis et al., 2001). The exercise was repeated in 2006/07 (Pirkis et al., 2008). In each year, identifying and descriptive information were extracted from all media items and a random sample of items were rated for quality according to pre-determined criteria. In 2000/01, 13,389 items that made reference to mental illness were identified; in 2006/07 this number increased almost three-fold to 36,753. There was a proportional decrease in reference to policy/program initiatives, and a proportional increase in items concerning individuals' experiences and items discussing mental health care and/or services. Emphasis on the causes, symptoms or treatment of mental illness remained similar across time. There were significant improvements on almost all indicators of quality. Headlines were more likely to be accurate and consistent. Stories were less likely to be sensationalist, language was more likely to be appropriate, and stereotyping was less likely to occur. An

individual and his/her mental illness were more likely to be separated, and mental illnesses were less likely to be presented as though they were all the same. Helpline information was also more likely to be presented.

Francis et al (Francis et al., 2005) and Dare et al (Dare et al., 2008) took a random subset of items from the Media Monitoring Project dataset (1,129 in 2000/01 and 1,606 in 2006/07) and considered the reporting of depression in more detail. In each year, depression was the most commonly-reported specific disorder (accounting for 18% of all items in 2000/01 and 20% in 2006/07); only items which were about undifferentiated mental disorders outnumbered items on depression. Depression-related items showed an increase in focus on individuals' experiences (24% in 2000/01 versus 45% in 2006/07) and a decrease in references to policy/program initiatives (36% in 2000/01 versus 23% in 2006/07). Depression-related items showed an improvement in quality over the study period. For example, these items were less likely to be sensationalist, less likely to use inappropriate language, and more likely to include information on help services. Items related to other categories of mental illness showed more variability in terms of their nature and quality over time.

In a sub-study conducted during the first period of the Media Monitoring Project, Francis et al (Francis et al., 2003) looked at the extent for specific mental illnesses to be reported in the context of crime. They focused on a random sample of identified items (n=1,126) and found that only 6% of these involved mental illness being reported in the context of crime. However, a substantial proportion of items on schizophrenia (16%) and substance abuse (11%) did so, as did 11% of items about undifferentiated mental disorders. By contrast, only a small proportion of items on depression (3%) and other disorders (6%) referred to crime, and none of the items on eating disorders, dementia or stress did so.

Chapter 4: Significance of the news and information media in shaping knowledge, attitudes and behaviour regarding mental illness

Overview of studies

A number of studies have attempted to determine how significant the news and information media is in influencing the way in which people think about mental illness. These studies are akin to 'audience reception studies', although their analysis of how people interpret information about mental illness that they derive from media sources has not been as in-depth as it has in other areas of media research. These studies have typically involved surveys, interviews or focus groups conducted with either the general population or people with mental illness (or their relatives and friends). The data collection approaches have usually required respondents to indicate the sources of their attitudes and knowledge regarding mental illness, and have sometimes sought information on the relative weight they would give to information derived from particular sources. Most of these studies have focused on mixed media, but some have looked at specific types of media (most notably the Internet). Some studies have explored the relationship between the media as a primary source and negative impacts (e.g., stigmatising attitudes) or positive impacts (e.g., accurate knowledge). This chapter predominantly considers the primacy of the news and information media as a source of information about mental illness; the negative and positive impacts are discussed in Chapters 5 and 6, respectively.

Key findings

Studies that have looked at the relative importance of the media as a source of information about mental illness have produced mixed results. The earliest work in this area, conducted in the United States by Nunnally (1957, 1961), found a disconnect between poor media portrayal of mental illness and public and expert opinions. Nunnally found that although media reporting tended to be negative, both the lay public and mental health experts showed a thorough understanding of mental illness.

Much later, Lopez et al (1991) and Granello et al (1999) administered self-completion questionnaires with groups of young people in the United States, and Morgan and Jorm (2009) took a similar approach in Australia. Lopez et al (1991) found that the majority (54%) ranked the mass media as the first or second most important source of their attitudes towards mental illness. Granello et al (1999) reported similar findings, observing that this was more likely to be the case for those with less tolerant attitudes. Morgan and Jorm (2009), however, found that only a minority of young people in their sample could recall specific news stories about mental illness.

Philo and colleagues (Philo, 1996, Philo et al., 1994) ran seven focus groups in Scotland, six general groups and one with people who had used mental health services. They also interviewed each participant separately. A significant minority of people in all groups felt

that news and information media (and entertainment media) underpinned community beliefs about mental illness, and was the primary source of their own understanding and attitudes. Some but not all of those who had more direct experience of mental illness indicated that this experience tempered the views they gleaned from the media.

In separate studies in the United States, Dickerson et al (2002) and Wahl and Harman (1989) sought the views of key stakeholders about the contribution of the media to the stigma associated with mental illness. Dickerson et al (2002) administered a questionnaire to outpatients with schizophrenia, 43% of whom said that they had seen or heard stigmatising media accounts of people with mental illness. Wahl and Harman (1989) surveyed members of the National Alliance for the Mentally Ill. Almost all of their respondents identified stigma as a major concern and indicated that news coverage of violent crimes perpetrated by people with mental illness was a key contributor to this stigma.

Studies in Australia (Lam-Po-Tang and McKay, 2010, Leach et al., 2007), Finland (Pohjanoksa-Mantyla et al., 2011), the United Kingdom (Powell and Clarke, 2006), Ireland (Horgan and Sweeney, 2010), the United States (Borzekowski et al., 2009, Clayton et al., 2009) and Switzerland (Khazaal et al., 2008) have focused more specifically on the Internet as a source of information, particularly for people with mental illness. In general, these studies have found that both the general population and people with mental illness favour other sources (e.g., health professionals, books, television) as sources of information. Collectively, the findings from these studies indicate that not all those with mental illness have access to the Internet, and variable proportions of those with access use it to seek mental health-related information. When they do use it in this way, they tend to seek information on symptoms, diagnosis and treatment, and sometimes to find personal accounts from others with similar problems. Relatively few users rate the Internet as an accurate source of information.

Chapter 5: Negative impacts of the presentation of mental illness in the news and information media on knowledge, attitudes and behaviours

Overview of studies

A number of 'media influence studies' have considered the potential negative impacts of media presentations of mental illness. These studies fall into two categories: studies employing surveys, focus groups and/or interviews, and experimental studies. The former have typically sought information from the general population or particular sub-groups, and have explored the relationship between their attitudes⁵ (and, to a lesser extent, knowledge and intended behaviours) and their experience with various media sources. The latter have randomly allocated participants into groups, exposed them to different media stories about people with mental illness and then examined differences in their knowledge, attitudes and behaviours.

Key findings

Much of the research effort in this area has involved an exploration of the relationship between media reporting of mental illness and community perceptions that people with mental illness have a propensity for violence and crime. In an early study, Steadman and Cocozza (1977) conducted a household-based survey in Albany, New York, and found that the majority of respondents feared both 'criminally insane patients' and 'mental patients' and that a significant minority could name someone who received media attention who was 'criminally insane', although they did not look at whether those who could cite a media case were more likely to express fear. Angermeyer and Matschinger (1996) later undertook more sophisticated analyses using data from several German population-based surveys conducted at different time points before and after two violent attacks on politicians by people with schizophrenia. They found a marked increase in respondents' perception of people with mental illness as 'dangerous' and 'unpredictable' following the attacks.

These findings are consistent with those from Philo and colleagues' (Philo, 1996, Philo et al., 1994) widely-cited Scottish focus group and interview study involving members of the general population and people who had used mental health services. Around 40% of participants believed that serious mental illness was associated with crime and violence and reported that the media had led them to draw this conclusion.

Several studies have also examined the connection between media reporting of mental illness and a desire for social distance from people with mental health problems. In separate surveys of young people in the United States, Lopez (1991) and Granello et al (1999) found

⁵ Attitudes have often been assessed via validated measures like the Community Attitudes towards Mental Illness (CAMI), Opinions about Mental Illness (OMI) and the Views about Mental Health (VMHP) scales

that a desire for social distance was common among participants who ranked the media as a key source of their knowledge of and attitudes towards mental illness.

Some studies have found the news and information media to have an effect on both participants' perceptions that people with a mental illness are violent and dangerous and their desire to socially distance themselves from them. For example, the above study by Angermeyer and Matschinger (1996) found that respondents in the post-attack surveys were more likely to express a desire for social distance from people with mental illness than respondents in the pre-attack surveys. Similarly, an experimental study conducted by Thornton and Wahl (1996) in the United States found that exposure to a newspaper article describing a murder committed by a person with a mental illness was associated with both an increase in perceptions of people with mental illness as dangerous and a reduction in acceptance of them.

Other studies, however, suggest that the two attitudinal standpoints may be conceptually independent. For example, Dietrich et al (2006) conducted a study in Germany in which students were randomly allocated an experimental group or a control group. The experimental group read a newspaper article describing a violent crime by a perpetrator with a history of mental health service use and the control group read a factual article about schizophrenia. At baseline, both groups had similar attitudes; after reading their respective articles the experimental group were more likely to describe people with mental illness as dangerous or violent, but no more likely to want to distance themselves from them.

Some studies have explicitly looked for a dose-response effect, in an effort to determine whether the amount of media exposure is important. Granello and Pauley (2000) surveyed young people in the United States and found a significant positive association between number of hours of television watched per week and intolerance. Minnebo and Van Acker (2004) reported more nuanced findings in a Belgian survey study, also involving young people. They found no relationship between overall exposure to television and perceived likelihood that a person with a mental illness would commit a violent act, but more frequent viewers had greater doubts that such a person could lead a normal life and expressed a stronger desire for social distance from them. These findings were mediated by variables such as perceived realism of the presentations of people with mental illness.

Other studies have drilled down even further and examined not only the amount of media exposure but also the nature of that exposure. For example, Angermeyer et al (2005) used data from a nationally-representative study of German adults to examine the relationship between media consumption and the desire for social distance from people with schizophrenia. They found that the desire for social distance increased as a function of the amount of television viewing irrespective of channels viewed, but that the relationship for newspapers was tempered by newspaper type (with readership of regional and tabloid newspapers having an influence, but readership of broadsheets not doing so).

Two studies have incorporated survey data from more specific sub-groups. In Canada, Matas et al (1985) administered an attitudinal questionnaire to journalists, psychiatrists, medical outpatients with no history of mental health problems, inpatients with mental disorders, and patients with personal experience of media coverage. All groups thought that media reporting of mental illness was sub-optimal, and all were equally accepting of people with mental illness. Matas et al's (1985) findings contrast with those of Grierson and Scott (1995) who supplemented data from a population-based survey in Alabama with data from their own survey of newspaper editors. They found that although editors were less likely

than the general public to view people with mental illness as unpredictable and dangerous, they were also less likely to want to employ them.

In the only Australian study in this area, Morgan and Jorm (2009) took a slightly different approach. They surveyed 12-25 year olds about what news stories about mental illness they could recall seeing or hearing in the past 12 months, and examining whether the type of story was associated with stigmatising attitudes. They found that recall of stories about crimes or violent acts committed by people with mental illness was associated with a reluctance to reveal a mental health problem and that recall of stories about disclosures of mental illness by prominent figures were associated with a perception that people with mental illness are weak.

Chapter 5: Positive influences of the news and information media on knowledge, attitudes and behaviours

Overview of studies

The majority of 'media influence studies' in this area have examined the impact of interventions (usually media campaigns or more specific short documentary films) on improving knowledge about mental illness and/or reducing stigmatising attitudes towards it. Most of these studies have considered undifferentiated mental disorders but some have looked at specific conditions (usually schizophrenia or depression). The studies have been experimental in nature, with the more basic involving before-and-after or interrupted time series designs and the more sophisticated taking the form of randomised controlled trials. Most have elicited data from participants using questionnaires or surveys, but some have supplemented this information with routinely-collected data (e.g., data on utilisation of mental health services).

Key findings

In the United States, three studies have evaluated the impact of campaigns designed to raise the visibility of mental health services and improve understanding of mental health problems in general. These studies have used cross-sectional survey data and/or service utilisation figures. Morrison and Libow (1977) found that public awareness of a local mental health centre increased from the beginning of a targeted newspaper campaign to the end of it, and was maintained at a six-week follow-up. Schanie and Sundel (1978) and Sundel and Schanie (1978) observed increased utilisation of a crisis and information centre and improvements in community understanding of mental illness following the roll-out of an awareness-raising campaign known as the Alternatives Project. More recently, Frank et al (2006) evaluated a mass media campaign designed to increase help-seeking from disaster mental health services in New York following the attacks of September 11, 2001. They found that hotline calls increased as a function of campaign spending.

Paykel et al (1997) and Paykel et al (1998) evaluated the impact of the *Defeat Depression* campaign, which was run in the United Kingdom between 1991 and 1996 and involved a mass media approach. They conducted cross-sectional, population-based surveys at three time points (1991, 1995 and 1997). Despite the fact that very few respondents could recall the campaign, and the fact that attitudes towards people with depression were relatively high at baseline, there were some improvements. In particular, attitudes towards treatment for depression improved. Finkelstein and Lapshin (2007) reported similar findings in an of a much smaller scale web-based program designed to combat the stigma associated with depression conducted in the United States.

In Australia, Jorm et al (2005, 2006) conducted a comparable evaluation of *beyondblue*. *beyondblue* is Australia's national depression initiative and has taken a multi-faceted approach to raising awareness of depression and related disorders, and reducing the stigma associated with them. *beyondblue's* approach has included a number of high profile media campaigns. Jorm et al (2005, 2006) conducted cross-sectional mental health literacy surveys

in 1995 and 2003-04 (i.e., before and after the inception of *beyondblue*) and compared findings in states and territories that provided funding for *beyondblue* (high exposure states) and did not provide funding (low exposure states). They found that those in high exposure states showed greater increases in awareness about depression over time than their counterparts in low exposure states.

Moving beyond mass media campaigns, several studies have focused on web-based programs. Some of these studies have involved process evaluations of web-based programs designed to educate particular groups. In Finland, for example, Kuosmanen et al (2010) evaluated a web-based program designed to deliver information to people with severe mental illness, seeking feedback from a convenience sample of service users, nursing students and registered nurses; all were positive. In the United Kingdom, Rathod et al (2006) reported similar findings when they evaluated a web-based teaching program designed to reduce the fear and stigma associated with dealing with elderly patients with mental disorders; medical students found the program enjoyable and commented on the usefulness of real cases.

Other studies of web-based programs have looked at outcomes, again for particular target groups. In Turkey, Bayar et al (2009) conducted a randomised controlled trial of a web-based anti-stigma program in reducing stigma among mental health professionals. They found that, compared with control psychiatrists, psychiatrists who were exposed to the program were significantly less likely to display stigmatising attitudes (particularly ones related to social distance). In Canada, McVey et al (2009) evaluated a web-based program designed to improve knowledge of eating disorders among teachers and public health professionals. They found the program was effective in improving knowledge about dieting and in countering biases about weight.

Depression literacy websites have attracted particular attention. Two Australian studies have evaluated such websites via randomised controlled trials. Griffiths et al (2004) found that adults with elevated symptoms of depression who were exposed to BluePages (a *beyondblue* website) experienced greater reductions in stigmatising attitudes from pre- to post-intervention than their counterparts who took part in weekly discussions about depression. Kiropoulos et al (2011) recruited Greek and Italian immigrants from the general population and exposed half of them to a multi-lingual depression literacy website while the other half took part in regular discussions about depression. Like Griffiths et al (2004), they found that the intervention group showed greater gains in depression literacy and greater reductions in stigmatising attitudes.

Thornton and Wahl's (1996) study of the negative outcomes of reporting described in the previous chapter looked at whether countering a stigmatising newspaper article with more positive ones could mitigate its impact. They found that both an educational article and an article which alerted readers to media distortions about mental illness were effective in doing so.

The other medium that has been the subject of considerable investigation is the documentary film. Several studies have examined whether films can have an impact on knowledge about and attitudes towards mental disorders in general. The earliest study in this area was conducted by Medvene and Bridge (1990) in two United States cities in the era of deinstitutionalisation. All participants in both cities were shown a film that included personal interviews with 14 stable, articulate people who had been discharged from long-term inpatient facilities into the community. In one city, participants' knowledge increased

and their attitudes and beliefs improved; in the other this was not the case. Tolomiczenko et al (2001) used a more robust design than Medvene and Bridge (1990), randomly allocating high school students to one of three groups. The first saw a documentary about challenges faced and ultimately overcome by a homeless person with mental illness, the second saw the documentary and took part in a discussion about mental illness, and the third took part in a routine education session about mental illness. Those who saw the documentary in isolation were more likely to demonstrate positive attitudes after the film session than the control group, but less likely to do so than those who saw the documentary and took part in the discussion.

The remaining studies in this area have all focused on films about schizophrenia. In a before-and-after study in Switzerland, Laroï and Van der Linden (2009) found that students who watched a film depicting the lives of people with schizophrenia displayed more positive attitudes towards schizophrenia after watching the film; in particular they held less stereotypical views, were less derogatory about people with the disorder, and were less likely to seek social distance from them. In separate randomised controlled trials in the United States, Penn et al (2003) and Corrigan et al (2007) found that viewing a film about schizophrenia was associated with greater improvements in attitudes towards people with schizophrenia than viewing other types of films. Corrigan et al (2007) observed that the greatest benefits were achieved if the film involved virtual 'contact' with a person with schizophrenia, rather than pure education. A randomised controlled trial conducted in New Zealand by Walker and Read (2002) suggests that the cause of schizophrenia depicted in the film may also be important. They showed students a film emphasising genetic and biological causes, a film indicating that environmental factors are key, or a film suggesting that there is an interplay between the two. The film describing biological and genetic causes was associated with a significantly greater increase in negative attitudes relating to unpredictability and dangerousness than the other two; the film describing environmental causes was associated with a non-significant trend towards positive attitudes.

Chapter 6: Discussion and conclusions

Summary of key findings

The review demonstrated that there is a tendency for different types of news and information media to present mental illnesses in a way that promotes stigma (e.g., by conflating it with violence and crime) and/or perpetuates myths about mental illness (e.g., by presenting information that is inaccurate about, say, treatment and prognosis). There are differences depending on the type of disorder presented. Undifferentiated mental disorders and schizophrenia appear to receive the poorest treatment in the media. There is some evidence that reporting practices have improved over time.

The review indicated that the news and information media is an important source of information about mental health and illness, both for the general population and for people with mental illness themselves. People rank it highly as an influential information source, and it is usually only 'trumped' by more direct sources such as mental health professionals. Its influence is sometimes tempered by direct or indirect personal experience with mental illness.

Taking the above two findings (i.e., the fact that mental illness is portrayed in a less-than-ideal way in the news and information media and the fact that the media is an important source of information about mental illness), it is not surprising that the review also found that the news and information media can have a negative influence on the way people think about mental illness. The news and information media can encourage people to think that those with mental illness are violent and dangerous, and can foster a desire for social distance from them.

The review also considered the potential for the news and information media to have a positive impact on knowledge, attitudes and behaviour. It found that mass media stigma reduction campaigns, web-based mental health literacy programs and documentary films can all have positive effects, particularly if they include personalised stories (as opposed to education alone).

Implications of the findings for policy and practice

It is clear that presentation of mental health and illness in news and information media should be done in a responsible manner. In Australia, the *Mindframe* National Media Initiative has worked closely with relevant stakeholders to encourage positive reporting. Under the *Mindframe* Initiative, the Hunter Institute of Mental Health has developed and disseminated a resource for editors and journalists known as *Reporting Suicide and Mental Illness* (Commonwealth of Australia, 2011); this resource has been well received and is regarded as a useful tool by media professionals who are preparing stories about mental illness (Skehan et al., 2006). The Hunter Institute of Mental Health has also developed a resource for journalism educators and students known as *ResponseAbility* which has been incorporated into the curriculum of all tertiary-level journalism courses across the country. It has also developed resources for the mental health and suicide prevention sectors, and police and courts to help them provide accurate, non-sensationalist information to the media when the case they are reporting on involves a person with a mental illness. SANE's Media Centre and *StigmaWatch* site, which are also funded under the *Mindframe* Initiative,

respond to community concerns about poor reporting about mental illness. SANE also responds to reports that more positively or accurately portray mental illness.

These sorts of initiatives are positive, and Australia is regarded as something of a world leader in this regard. Nonetheless, there are still areas that require further attention. For example, the Internet is a particularly difficult medium to grapple with. Unlike more traditional news and information media, Internet content is not the relatively exclusive domain of journalists and other media professionals. It might be possible to develop resources on best practice in presenting information about mental illness on websites, but such resources would need to be designed to have a very broad reach and could only be expected to be used for voluntary self-regulation.

Moving forward, there is a need for mental health experts and media professionals to work together to encourage positive portrayals of people with mental illness in the news and information media. The mental health experts should of course include consumers, who will have particularly insightful perspectives into the nuanced ways in which particular types of portrayal can send negative or positive messages. The media professionals should not only include journalists working with traditional media, but should also include regular contributors to newer media.

Limitations of the review

The current review was as comprehensive as possible, but some articles may have been missed by the search strategy. The review also had particular emphases, which may mean that some studies in particular areas were not picked up. For example, it interpreted negative and positive impacts as being about individuals' knowledge, attitudes and behaviours, and did not extend to broader and perhaps more distal impacts. For example, several studies have considered the relationship between the reporting of particular incidents involving people with mental illness and subsequent changes in policy directions (Hallam, 2002, Paterson, 2006), but these were not included in the review.

The review could only be as strong as the studies that comprised it. All studies have limitations, and their findings should be interpreted within the context of these limitations. For example, the 'content analysis studies' all relied on particular samples of media articles, and the sampling strategy used in given studies may have introduced particular biases. Similarly, the 'audience reception studies' tended to take a fairly cursory view of how audiences interpret media-derived information about mental illness, and generally did not go beyond asking respondents to rate the extent to which they regarded the media as an important information source. Likewise, a number of the 'media impact studies' used relatively weak designs (e.g., before-and-after designs rather than randomised controlled trials) to assess impact.

The other point that is worth making here is that the studies identified in the review are by investigators from disciplines like psychiatry, psychology and sociology. This means that the mental health focus is well covered, but particular conceptual and methodological approaches dominate. With some exceptions (e.g., the work by Philo and colleagues from the Glasgow Media Group in Scotland), communication theory and media studies are under-represented. Greater multidisciplinary collaboration is required to strengthen our understanding of the contested frames that shape stories about mental illness and the way in which stories about mental illness are interpreted by different readers and viewers.

Conclusions

The news and entertainment media often present a distorted and inaccurate picture of mental health and illness. Because these media sources are influential, this can have the effect of perpetuating stigma about mental illness. Explicit efforts to use the media to influence community knowledge, attitudes and behaviours relating to mental illness in positive ways have demonstrated some success. Mental health experts and media professionals should collaborate to reduce negative portrayals of mental illness, and increase positive and informative representations of mental health issues.

References

- ALLEN, R. & NAIRN, R. G. 1997. Media depictions of mental illness: An analysis of the use of dangerousness. *The Australian and New Zealand Journal of Psychiatry*, 31, 375-381.
- ANDERSON, M. 2003. 'One flew over the psychiatric unit': Mental illness and the media. *Journal of Psychiatric and Mental Health Nursing*, 10, 297-306.
- ANGERMEYER, M., DIETRICH, S., POTT, D. & MATSCHINGER, H. 2005. Media consumption and desire for social distance towards people with schizophrenia. *European Psychiatry*, 20, 246-250.
- ANGERMEYER, M. C. & MATSCHINGER, H. 1996. The effect of violent attacks by schizophrenic persons on the attitude of the public toward the mentally ill. *Social Science and Medicine*, 43, 172-180.
- ANGERMEYER, M. C. & SCHULZE, B. 2001. Reinforcing stereotypes: How the focus on forensic cases in news reporting may influence public attitudes towards the mentally ill. *International Journal of Law and Psychiatry*, 24, 469-486.
- AUSTIN, L. S. & HUSTED, K. 1998. Cost-effectiveness of television, radio, and print media programs for public mental health education. *Psychiatric services (Washington, D.C.)*, 49, 808-11.
- BAYAR, M. R., POYRAZ, B. C., AKSOY-POYRAZ, C. & ARIKAN, M. K. 2009. Reducing mental illness stigma in mental health professionals using a web-based approach. *The Israel Journal of Psychiatry and Related Sciences*, 46, 226-230.
- BENGIS, C., JOHANSSON, E., DANIELSSON, U., LEHTI, A. & HAMMARSTROM, A. 2008. Gendered portraits of depression in Swedish newspapers. *Qualitative health research*, 18, 962-73.
- BILIC, B. & GEORGACA, E. 2007. Representations of "mental illness" in Serbian newspapers: A critical discourse analysis. *Qualitative Research in Psychology*, 4, 167-186.
- BOKE, O., AKER, S., ALPTEKIN AKER, A., SARISOY, G. & SAHIN, A. R. 2007. Schizophrenia in Turkish newspapers: Retrospective scanning study. *Social Psychiatry and Psychiatric Epidemiology*, 42, 457-461.
- BORZEKOWSKI, D. L. G., LEITH, J., MEDOFF, D. R., POTTS, W., DIXON, L. B., BALIS, T., HACKMAN, A. L. & HIMELHOCH, S. 2009. Use of the internet and other media for health information among clinic outpatients with serious mental illness. *Psychiatric Services*, 60, 1265-1268.
- BRAWLEY, E. A. & MARTINEZ-BRAWLEY, E. E. 1984. Using community news media to broaden mental health center prevention efforts. *The American journal of orthopsychiatry*, 54, 318-21.
- BROOKS, S. 2009. Radio food disorder: The conversational constitution of eating disorders in radio phone-ins. *Journal of Community and Applied Social Psychology*, 19, 360-373.
- BYRNE, P. 1997. Psychiatric stigma: Past, passing and to come. *Journal of the Royal Society of Medicine*, 90, 618-621.
- CHOPRA, A. & DOODY, G. 2007a. Crime rates and local newspaper coverage of schizophrenia. *The Psychiatrist*, 31, 206-208.
- CHOPRA, A. K. & DOODY, G. A. 2007b. Schizophrenia, an illness and a metaphor: analysis of the use of the term 'schizophrenia' in the UK national newspapers. *Journal of the Royal Society of Medicine*, 100, 423-6.
- CLARKE, J. 2004. Mad, bad and dangerous: The media and mental illness. *Mental Health Practice*, 7, 16-19.
- CLARKE, J. 2009. The portrayal of depression in magazines designed for men (2000-2007). *International Journal of Men's Health*, 8, 202-212.

- CLARKE, J. 2010a. Childhood depression and mass print magazines in the USA and Canada: 1983-2008. *Child and Family Social Work*, 16, 52-60.
- CLARKE, J. & GAWLEY, A. 2009. The triumph of pharmaceuticals: The portrayal of depression from 1980 to 2005. *Administration and Policy in Mental Health and Mental Health Services Research*, 36, 91-101.
- CLARKE, J. N. 2010b. The portrayal of depression in the three most popular English-language Black-American magazines in the USA: Ebony, Essence, and Jet. *Ethnicity and Health*, 15, 459-473.
- CLAYTON, S., BORZEKOWSKI, D., HIMELHOCH, S., DIXON, L., POTTS, W., MEDOFF, D., HACKMAN, A. & BALIS, D. 2009. Media and internet ownership and use among mental health outpatients with serious mental illness. *American Journal of Drug and Alcohol Abuse*, 35, 364-367.
- CLEMENT, S. & FOSTER, N. 2008. Newspaper reporting on schizophrenia: a content analysis of five national newspapers at two time points. *Schizophrenia Research*, 98, 178-183.
- COMMONWEALTH OF AUSTRALIA 2011. Reporting Suicide and Mental Illness. Canberra: Commonwealth of Australia.
- CONRAD, P. 2001. Genetic optimism: Framing genes and mental illness in the news. *Culture, Medicine and Psychiatry*, 25, 225-247.
- CORRIGAN, P., WATSON, A., GRACIA, G., SLOPEN, N., RASINSKI, K. & HALL, L. 2005. Newspaper stories as measures of structural stigma. *Psychiatric Services*, 56, 551-556.
- CORRIGAN, P. W., LARSON, J., SELLS, M., NIESSEN, N. & WATSON, A. C. 2007. Will filmed presentations of education and contact diminish mental illness stigma? *Community Mental Health Journal*, 43, 171-181.
- COVERDALE, J., NAIRN, R. & CLAASEN, D. 2002. Depictions of mental illness in print media: A prospective national sample. *Australian and New Zealand Journal of Psychiatry*, 36, 697-700.
- CUTCLIFFE, J. R. & HANNIGAN, B. 2001. Mass media, 'monsters' and mental health clients: the need for increased lobbying. *Journal of Psychiatric and Mental Health Nursing*, 8, 315-321.
- DARE, A., PIRKIS, J., BLOOD, R. W. & BURGESS, P. 2008. Monitoring Media Reporting of Depression: Changes in Media Reporting of Depression in Australia: 2000/01-2006/07. Melbourne: University of Melbourne.
- DAY, D. M. & PAGE, S. 1986. Portrayal of mental illness in Canadian newspapers. *Canadian Journal of Psychiatry*, 31, 813-817.
- DICKERSON, F., SOMMERVILLE, J., ORIGONI, A., RINGEL, N. & PARENTE, F. 2002. Experiences of stigma among outpatients with schizophrenia. *Schizophrenia Bulletin*, 28, 143-156.
- DIETRICH, S., HEIDER, D., MATSCHINGER, H. & ANGERMEYER, M. C. 2006. Influence of newspaper reporting on adolescents' attitudes toward people with mental illness. *Social psychiatry and psychiatric epidemiology*, 41, 318-22.
- DIZDAREVIC, I. 2010. Psychosocial precondition for possible impact of media in the process for most efficient protection of viewers', listeners' and readers' mental health. *Materia Socio Medica*, 22, 28-33.
- DUBUGRAS, M. T. B., EVANS-LACKO, S. & DE JESUS MARI, J. 2011a. Portrayal of schizophrenia in a prestigious newspaper in Brazil. *Psychiatric Services*, 62, 659-665.
- DUBUGRAS, M. T. B., EVANS-LACKO, S. & MARI, J. D. J. 2011b. A two-year cross-sectional study on the information about schizophrenia divulged by a prestigious daily newspaper. *Journal of Nervous and Mental Disease*, 199, 659-665.

- DUCKWORTH, K., HALPERN, J. H., SCHUTT, R. K. & GILLESPIE, C. 2003. Use of schizophrenia as a metaphor in US newspapers. *Psychiatric Services*, 54, 1402-1404.
- FARROW, T. L. & O'BRIEN, A. J. 2005. Discourse analysis of newspaper coverage of the 2001/2002 Canterbury, New Zealand mental health nurses' strike. *International Journal of Mental Health Nursing*, 14, 187-195.
- FERRIMAN, A. 2000. The stigma of schizophrenia. *British Medical Journal*, 320, 522.
- FINKELSTEIN, J. & LAPSHIN, O. 2007. Reducing depression stigma using a web-based program. *International journal of medical informatics*, 76, 726-34.
- FOSTER, J. 2006. Media presentation of the Mental Health Bill and representation of mental health problems. *Journal of Community and Applied Social Psychology*, 16.
- FRANCIS, C., PIRKIS, J., BLOOD, R. W., DUNT, D., BURGESS, P., MORLEY, B. & STEWART, A. 2005. Portrayal of depression and other mental illnesses in Australian nonfiction media. *Journal of Community Psychology*, 33, 283-297.
- FRANCIS, C., PIRKIS, J., BLOOD, R. W., DUNT, D., BURGESS, P., MORLEY, B., STEWART, A. & PUTNIS, P. 2004. The portrayal of mental health and illness in Australian non-fiction media. *The Australian and New Zealand Journal of Psychiatry*, 38, 541-546.
- FRANCIS, C., PIRKIS, J., DUNT, D. & BLOOD, R. W. 2001. Mental Health and Illness in the Media: A Review of the Literature. Canberra: Commonwealth Department of Health and Ageing.
- FRANCIS, C., PIRKIS, J. E., BLOOD, R. W., BURGESS, P. M. & DUNT, D. R. 2003. Media reporting of specific mental illnesses in the context of crime: implications for mental health literacy. *The Medical journal of Australia*, 179, 638.
- FRANK, R. G., PINDYCK, T., DONAHUE, S. A., PEASE, E. A., FOSTER, M. J., FELTON, C. J. & ESSOCK, S. M. 2006. Impact of a media campaign for disaster mental health counseling in post-September 11 New York. *Psychiatric Services*, 57, 1304-1308.
- FRIEDMAN, R. A. 2009. The role of psychiatrists who write for popular media: experts, commentators, or educators? *The American journal of psychiatry*, 166, 757-9.
- GATTUSO, S., FULLAGAR, S. & YOUNG, I. 2005. Speaking of women's 'nameless misery': The everyday construction of depression in Australian women's magazines. *Social Science and Medicine*, 61, 1640-1648.
- GOULDEN, R., CORKER, E., EVANS-LACKO, S., ROSE, D., THORNICROFT, G. & HENDERSON, C. 2008. Newspaper coverage of mental illness in the UK, 1992-2008. *BMC public health*, 11, 796.
- GOULDEN, R., CORKER, E., EVANS-LACKO, S., ROSE, D., THORNICROFT, G. & HENDERSON, C. 2011. Newspaper coverage of mental illness in the UK, 1992-2008. *BMC Public Health*, 11, 796.
- GRANELLO, D., HAAG, D., PAULEY, P. & CARMICHAEL, A. 1999. Relationship of the media to attitudes toward people with mental illness. *Journal of Humanistic Counseling, Education and Development*, 38, 98-110.
- GRANELLO, D. & PAULEY, P. 2000. Television viewing habits and their relationship to tolerance toward people with mental illness. *Journal of Mental Health Counselling*, 22, 162-175.
- GRIERSON, D. & SCOTT, R. 1995. Comparison of attitudes of editors and public towards mental illness. *Newspaper Research Journal*, 16, 95-102.
- GRIFFITHS, K. M., CHRISTENSEN, H., JORM, A. F., EVANS, K. & GROVES, C. 2004. Effect of web-based depression literacy and cognitive-behavioural therapy interventions on stigmatising attitudes to depression: randomised controlled trial. *The British journal of psychiatry : the journal of mental science*, 185, 342-9.
- HALLAM, A. 2002. Media influences on mental health policy: Long-term effects of the Clunis and Silcock cases. *International Review of Psychiatry* 14, 26-33.

- HARPER, S. 2008. Understanding mental distress in film and media: a new agenda? *The journal of the Royal Society for the Promotion of Health*, 128, 170-4.
- HAZELTON, M. 1997. Reporting mental health: a discourse analysis of mental health-related news in two Australian newspapers. *The Australian and New Zealand journal of mental health nursing*, 6, 73-89.
- HENSON, C., CHAPMAN, S., MCLEOD, L., JOHNSON, N. & HICKIE, I. 2010. Room for improvement: Mixed portrayal of young people with mental illness on Australian television news. *Australian and New Zealand Journal of Psychiatry*, 44, 267-272.
- HENSON, C., CHAPMAN, S., MCLEOD, L., JOHNSON, N., MCGEECHAN, K. & HICKIE, I. 2009. More us than them: Positive depictions of mental illness on Australian television news. *Australian and New Zealand Journal of Psychiatry*, 43, 554-560.
- HOLMAN, L. 2011. Building bias: Media portrayal of postpartum disorders and mental illness stereotypes. *Media Report to Women*, 39, 12-19.
- HORGAN, A. & SWEENEY, J. 2010. Young students' use of the internet for mental health information and support. *Journal and Psychiatric and Mental Health Nursing*, 17, 117-123.
- JAKOVLJEVIC, M., TOMIC, Z., MASLOV, B. & SKOKO, I. 2010. New image of psychiatry, mass media impact and public relations. *Psychiatria Danubina*, 22, 145-8.
- JORM, A., CHRISTENSEN, H. & GRIFFITHS, K. 2005. The impact of *beyondblue: The National Depression Initiative* on the Australian public's recognition of depression and beliefs about treatment. *Australian and New Zealand Journal of Psychiatry*, 39, 248-254.
- JORM, A., CHRISTENSEN, H. & GRIFFITHS, K. 2006. Changes in depression awareness and attitudes in Australia: The impact of *beyondblue: The National Depression Initiative*. *Australian and New Zealand Journal of Psychiatry*, 40, 42-46.
- KALUCY, M., RODWAY, C., FINN, J., PEARSON, A., FLYNN, S., SWINSON, N., ROSCOE, A., DA CRUZ, D., APPLEBY, L. & SHAW, J. 2011. Comparison of British national newspaper coverage of homicide committed by perpetrators with and without mental illness. *The Australian and New Zealand Journal of Psychiatry*, 45, 539-548.
- KHAZAAL, Y., CHATTON, A., COCHAND, S., HOCH, A., KHANKARLI, M. B., KHAN, R. & ZULLINO, D. F. 2008. Internet use by patients with psychiatric disorders in search for general and medical informations. *Psychiatric Quarterly*, 79, 301-309.
- KIROPOULOS, L. A., GRIFFITHS, K. M. & BLASHKI, G. 2011. Effects of a multilingual information website intervention on the levels of depression literacy and depression-related stigma in Greek-born and Italian-born immigrants living in Australia: A randomized controlled trial. *Journal of Medical Internet Research*, 13, e34.
- KLIN, A. & LEMISH, D. 2008. Mental disorders stigma in the media: review of studies on production, content, and influences. *Journal of health communication*, 13, 434-49.
- KUOSMANEN, L., JAKOBSSON, T., HYTTINEN, J., KOIVUNEN, M. & VALIMAKI, M. 2010. Usability evaluation of a web-based patient information system for individuals with severe mental health problems. *Journal of Advanced Nursing*, 66, 2701-2710.
- KUTNER, L. & BERESIN, E. V. 2000. Reaching out: mass media techniques for child and adolescent psychiatrists. *Journal of the American Academy of Child and Adolescent Psychiatry*, 39, 1452-4.
- LAM-PO-TANG, J. & MCKAY, D. 2010. Dr Google, MD: A survey of mental health-related internet use in a private practice sample. *Australasian Psychiatry*, 18, 130-133.
- LAROUI, F. & VAN DER LINDEN, M. 2009. The effects of a documentary film on reducing stigmatisation about schizophrenia. *Psychosis*, 1, 61-72.
- LEACH, L. S., CHRISTENSEN, H., GRIFFITHS, K. M., JORM, A. F. & MACKINNON, A. J. 2007. Websites as a mode of delivering mental health information: perceptions from the Australian public. *Social psychiatry and psychiatric epidemiology*, 42, 167-72.

- LOPEZ, L. 1991. Adolescents' attitudes toward mental illness and perceived sources of their attitudes: An examination of pilot data. *Archives of Psychiatric Nursing*, 5, 271-280.
- LUPTON, D. 1993. Back to Bedlam? Chelmsford and the press. *Australian and New Zealand Journal of Psychiatry*, 27, 140-148.
- MAGLIANO, L., READ, J. & MARASSI, R. 2011. Metaphoric and non-metaphoric use of the term "schizophrenia" in Italian newspapers. *Social Psychiatry and Psychiatric Epidemiology*, 46, 1019-1025.
- MARCH, P. 1999. Ethical responses to media depictions of mental illness: An advocacy approach. *Journal of Humanistic Counseling, Education and Development*, 38, 70-79.
- MARCOS, L. R. 1989. Media power and public mental health policy. *The American journal of psychiatry*, 146, 1185-9.
- MATAS, M., EL-GUEBALY, N., HARPER, D., GREEN, M. & PETERKIN, A. 1986. Mental illness and the media: Part II. Content analysis of press coverage of mental health topics. *Canadian Journal of Psychiatry*, 31, 431-433.
- MATAS, M., EL-GUEBALY, N., PETERKIN, A., GREEN, M. & HARPER, D. 1985. Mental illness and the media: an assessment of attitudes and communication. *Canadian journal of psychiatry. Revue canadienne de psychiatrie*, 30, 12-7.
- MCVEY, G., GUSELLA, J., TWEED, S. & FERRARI, M. 2009. A controlled evaluation of web-based training for teachers and public health practitioners on the prevention of eating disorders. *Eating Disorders*, 17, 1-26.
- MEAGHER, D., NEWMAN, A., FEE, M. & CASEY, P. 1995. The coverage of psychiatry in the Irish print media. *Psychiatric Bulletin*, 19, 642-644.
- MEDVENE, L. & BRIDGE, R. G. 1990. Using television to create more favourable attitudes toward community facilities for deinstitutionalized psychiatric patients. *Journal of Applied Social Psychology*, 20, 1863-1878.
- MILLER, G. 2007. Mental health and the mass media: room for improvement. *Lancet*, 370, 1015-6.
- MINNEBO, J. & VAN ACKER, A. 2004. Does television influence adolescents' perceptions of and attitudes toward people with mental illness? *Journal of Community Psychology*, 32, 257-275.
- MORGAN, A. & JORM, A. 2009. Recall of news stories about mental illness by Australian youth: Associations with help-seeking attitudes and stigma. *Australian and New Zealand Journal of Psychiatry*, 43, 866-872.
- MORRISON, J. K. & LIBOW, J. A. 1977. The effect of newspaper publicity on a mental health center's community visibility. *Community mental health journal*, 13, 58-62.
- NAIRN, R. 1999. Does the use of psychiatrists as sources of information improve media depictions of mental illness? A pilot study. *Australian and New Zealand Journal of Psychiatry*, 33, 583-589.
- NAIRN, R. 2007. Media portrayals of mental illness, or is it madness? A review. *Australian Psychologist*, 42, 138-146.
- NAIRN, R., COVERDALE, J. & CLAASEN, D. 2001. From source material to news story in New Zealand print media: a prospective study of the stigmatizing processes in depicting mental illness. *Australian and New Zealand Journal of Psychiatry*, 35, 654-659.
- NAIRN, R., COVERDALE, J. & CLAASEN, D. 2006. What is the role of intertextuality in media depictions of mental illness: Implications for forensic psychiatry. *Psychiatry, Psychology and Law*, 13, 243-250.
- NAIRN, R. G. & COVERDALE, J. H. 2005. People never see us living well: an appraisal of the personal stories about mental illness in a prospective print media sample. *The Australian and New Zealand journal of psychiatry*, 39, 281-7.

- NAWKOVA, L., ADAMKOVA, T., VONDRACKOVA, P., NAWKA, A., MIOVSKY, M. & RABOCH, J. 2009. The picture of mental disorders in Czech printed media. *European Psychiatry*, 24, s949.
- NAWKOVÁ, L., NAWKA, A., ADÁMKOVÁ, T., RUKAVINA, T., HOLCNEROVÁ, P., KUZMAN, M., JOVANOVIĆ, N., BRBOROVIĆ, O., BEDNÁROVÁ, B., ZUCHOVÁ, S., MIOVSKÝ, M. & RABOCH, J. 2012. The picture of mental illness in the printed media in three central European countries. *Journal of Health Communication*, 17, 22-40.
- NUNNALLY, J. 1957. The communication of mental health information: A comparison of the opinions of experts and the public with mass media presentations. *Behavioral Science*, 2, 222-230.
- NUNNALLY, J. 1961. *Popular Conceptions of Mental Health*, Holt, Rinehart and Winston.
- O'GRADY, T. 1996. Public attitudes to mental illness. *British Journal of Psychiatry*, 168, 652.
- O'HARA, S. K. & SMITH, K. C. 2007. Presentation of eating disorders in the news media: What are the implications for patient diagnosis and treatment? *Patient education and counseling*, 68, 43-51.
- OLSTEAD, R. 2002. Contesting the text: Canadian media depictions of the conflation of mental illness and criminality. *Sociology of Health and Illness*, 24, 621-643.
- PATERSON, B. 2006. Newspaper representations of mental illness and the impact of the reporting of "events" on social policy: The 'framing' of Isabel Schwarz and Jonathan Zito. *Journal of Psychiatric and Mental Health Nursing*, 13, 294-300.
- PATERSON, B. 2007. A discourse analysis of the construction of mental illness in two UK newspapers from 1985-2000. *Issues in mental health nursing*, 28, 1087-103.
- PAYKEL, E., HART, D. & PRIEST, R. 1998. Changes in public attitudes to depression during the Defeat Depression Campaign. *British Journal of Psychiatry*, 173, 519-522.
- PAYKEL, E., TYLEE, A., WRIGHT, A., PRIEST, R., RIX, S. & HART, D. 1997. The Defeat Depression Campaign: Psychiatry in the public arena. *American Journal of Psychiatry*, 154, s59-s66.
- PENN, D. L., CHAMBERLIN, C. & MUESER, K. T. 2003. The effects of a documentary film about schizophrenia on psychiatric stigma. *Schizophrenia bulletin*, 29, 383-91.
- PHILO, G. 1996. The media and public belief. In: PHILO, G. (ed.) *Media and Mental Distress*. Essex: Addison Wesley Longman.
- PHILO, G., MCLAUGHLIN, G. & HENDERSON, L. 1996. Media content. In: PHILO, G. (ed.) *Media and Mental Distress*. Essex: Addison Wesley Longman.
- PHILO, G., SECKER, J., PLATT, S., HENDERSON, L., MCLAUGHLIN, G. & BURNSIDE, J. 1994. The impact of the mass media on public images of mental illness: Media content and audience belief. *Health Education Journal*, 53, 271-281.
- PIRKIS, J., BLOOD, R. W., DARE, A., HOLLAND, K., RANKIN, B., WILLIAMSON, M., BURGESS, P., JOLLEY, D., HOGAN, N. & CHANDLER, S. 2008. The Media Monitoring Project: Changes in Media Reporting of Suicide and Mental Health and Illness in Australia: 2000/01-2006/07. Canberra: Department of Health and Ageing.
- PIRKIS, J., BLOOD, R. W., FRANCIS, C., PUTNIS, P., BURGESS, P., MORLEY, B., STEWART, A. & PAYNE, T. 2001. The Media Monitoring Project. A Baseline Description of How the Australian Media Report and Portray Suicide and Mental Health and Illness. Canberra: Department of Health and Aged Care.
- POHJANOKSA-MANTYLA, M., BELL, J. S., HELAKORPI, S., NARHI, U., PELKONEN, A. & AIRAKSINEN, M. S. Is the Internet replacing health professionals? A population survey on sources of medicines information among people with mental disorders. *Social psychiatry and psychiatric epidemiology*, 46, 373-9.
- POHJANOKSA-MANTYLA, M., BELL, J. S., HELAKORPI, S., NARHI, U., PELKONEN, A. & AIRAKSINEN, M. S. 2011. Is the Internet replacing health professionals? A population

- survey on sources of medicines information among people with mental disorders. *Social Psychiatry and Psychiatric Epidemiology*, 46, 373-9.
- POWELL, J. & CLARKE, A. 2006. Internet information-seeking in mental health: population survey. *The British journal of psychiatry : the journal of mental science*, 189, 273-7.
- POWELL, J. & CLARKE, A. 2007. Investigating internet use by mental health service users: interview study. *Studies in health technology and informatics*, 129, 1112-6.
- RATHOD, S., ROSENINGE, H. & MARTIN, N. 2006. Evaluation of a pilot web introductory teaching programme in old age psychiatry for medical students. *Medical teacher*, 28, 664-5.
- REAVLEY, N. J. & JORM, A. F. 2010. The quality of mental disorder information websites: A review. *Patient Education and Counseling*, 85, e16-e25.
- RENZULLI, D., MEBANE, F. & SIEFF, E. 2006. News coverage analyses of mental health services immediately after September 11, 2001. *Psychiatric Services*, 57, 1339-1341.
- ROWE, R., TILBURY, F., RAPLEY, M. & O'FERRALL, I. 2003. 'About a year before the breakdown I was having symptoms': Sadness, pathology and the Australian newspaper media. *Sociology of Health and Illness*, 25, 680-696.
- SAGUY, A. & GRUYS, K. 2010. News media constructions of overweight and eating disorders. *Social Problems*, 57, 231-250.
- SCHANIE, C. F. & SUNDEL, M. 1978. A community mental health innovation in mass media preventive education: the alternatives project. *American journal of community psychology*, 6, 573-81.
- SHEPHERD, E. & SEALE, C. Eating disorders in the media: The changing nature of UK newspaper reports. *European eating disorders review : the journal of the Eating Disorders Association*, 18, 486-95.
- SIEFF, E. 2003. Media frames of mental illness: The potential impact of negative frames. *Journal of Mental Health*, 12, 259-269.
- SKEHAN, J., GREENHALGH, S., HAZEL, T. & PIRKIS, J. 2006. Reach, awareness and uptake of media guidelines for reporting suicide and mental illness: An Australian perspective. *International Journal of Mental Health Promotion*, 8, 28-34.
- SLOPEN, N. B., WATSON, A. C., GRACIA, G. & CORRIGAN, P. W. 2007. Age analysis of newspaper coverage of mental illness. *Journal of Health Communication*, 12, 3-15.
- STARK, C., PATERSON, B. & DEVLIN, B. 2004. Newspaper coverage of a violent assault by a mentally ill person. *Journal of Psychiatric and Mental Health Nursing*, 11, 635-643.
- STASTNY, P. 1998. From exploitation to self-reflection: representing persons with psychiatric disabilities in documentary film. *Literature and medicine*, 17, 68-90.
- STEADMAN, H. & COCOZZA, J. 1977. Selective reporting and the public's misconceptions of the criminally insane. *Public Opinion Quarterly*, 41, 523-533.
- STOUT, P. A., VILLEGAS, J. & JENNINGS, N. A. 2004. Images of mental illness in the media: identifying gaps in the research. *Schizophrenia bulletin*, 30, 543-61.
- STUART, H. 2003. Stigma and the daily news: Evaluation of a newspaper intervention. *Canadian Journal of Psychiatry*, 48, 651-656.
- STUART, H. 2006. Media portrayal of mental illness and its treatments: what effect does it have on people with mental illness? *CNS drugs*, 20, 99-106.
- SUNDEL, M. & SCHANIE, C. F. 1978. Community mental health and mass media preventive education: the alternatives project. *The Social service review*, 52, 297-306.
- TAYLOR, W. 1957. Gauging the mental health content of the mass media. *Journalism Quarterly*.
- THORNTON, J. & WAHL, O. 1996. Impact of a newspaper article on attitudes toward mental illness. *Journal of Community Psychology*, 24, 17-25.

- TOLOMICZENKO, G., GOERING, P. & DURBIN, J. 2001. Educating the public about mental illness and homelessness: A cautionary note. *Canadian Journal of Psychiatry*, 46, 253-257.
- WAHL, O. 1992. Mass media images of mental illness: A review of the literature. *Journal of Community Psychology*, 20, 343-352.
- WAHL, O. 1996. Schizophrenia in the news. *Psychiatric Rehabilitation Journal*, 20, 51-54.
- WAHL, O. 2003. News media portrayal of mental illness: Implications for public policy. *The American Behavioral Scientist*, 46, 1594-1600.
- WAHL, O., BOROSTOVIK, L. & RIEPPI, R. 1995. Schizophrenia in popular periodicals. *Community Mental Health Journal*, 31, 239-248.
- WAHL, O. & HARMAN, C. 1989. Family views of stigma. *Schizophrenia Bulletin*, 15, 131-139.
- WAHL, O. & LINCOLN-KAYE, A. 1992. Mental illness topics in popular periodicals. *Community Mental Health Journal*, 28, 21-28.
- WAHL, O., WOOD, A. & RICHARDS, R. 2002. Newspaper coverage of mental illness: Is it changing? *Psychiatric Rehabilitation Skills*, 6, 9-31.
- WAHL, O. F. 2000. Obsessive-compulsive disorder in popular magazines. *Community Mental Health Journal*, 36, 307-312.
- WALKER, I. & READ, J. 2002. The differential effectiveness of psychosocial and biogenetic causal explanations in reducing negative attitudes toward 'mental illness'. *Psychiatry*, 65, 313-325.
- WARD, G. 1997. Making Headlines: Mental Health and the National Press. London: Health Education Authority.
- WHITLEY, R. & HICKLING, F. W. 2007. Open papers, open minds? Media representations of psychiatric de-institutionalization in Jamaica. *Transcultural Psychiatry*, 44, 659-671.
- WILDE, A., BONFIGLIOLI, C., MEISER, B., MITCHELL, P. B. & SCHOFIELD, P. R. 2011. Portrayal of psychiatric genetics in Australian print news media, 1996-2009. *The Medical journal of Australia*, 195, 401-404.
- WILLIAMS, M. & TAYLOR, J. 1995. Mental illness: Media perpetuation of stigma. *Contemporary Nurse*, 4, 41-46.

Appendix 1: Details of individual studies included in the review

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
Allen and Nairn (1997)	1	New Zealand	Undifferentiated mental disorders	Newspapers	Analysed 12 articles from a special report on mental health published in the <i>Auckland City Harbour News</i> .	Taken together, the articles presented a picture that suggested people with mental illness are a threat to the community. There were frequent references to violence, property crimes and abuse perpetrated by people with mental illness, and suggestions that this has personal and economic costs for the community. The tone of the articles was disapproving, and there was a reliance on specific stories about individuals who appeared 'odd' or 'different' in some way. 'Straight' educational information about the prevalence and types of mental illness was presented after these stories in such a way that it could not challenge the stereotypes they created.
Angermeyer and Matschinger (1996)	3	Germany	Undifferentiated mental illness; schizophrenia	Mixed media	Examined data from several population surveys conducted in Germany that looked at attitudes towards people with mental illness before and after two violent attacks on politicians carried out by people with schizophrenia. The attacks were widely covered in the media.	There was a marked increase in respondents' desired social distance from people with mental illness immediately after the attacks in 1990. This decreased gradually in the following two years, but remained higher than the pre-1990 level. A similar trend was observed for the tendency of respondents to consider people with mental illness to be 'dangerous' and 'unpredictable'.
Angermeyer and Schulze (2001)	1	Germany	Undifferentiated mental disorders	Newspapers	Retrieved all articles mentioning mental illness published in the German tabloid <i>BILD-Zeitung</i> in the first nine months of 1997. Two independent coders grouped	One hundred and eighty six articles were identified; mental illness coverage was calculated to account for less than 1% of all media reporting. Articles that reported on

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
					the articles into categories related to themes as they emerged, and disagreements were resolved by consensus discussions with mental health experts and media professionals.	crimes perpetrated by people with mental illness were the most common, accounting for over half of the sample. Other categories included: suicide; information on mental health issues; violence towards people with mental illness; advice on mental health problems; and mental illness mentioned in connection with events or news stories other than crime-related ones.
Angermeyer et al (2005)	3	Germany	Schizophrenia	Newspapers; television	Used data from a nationwide, population-based study conducted in Germany to examine the relationship between media consumption and the desire for social distance from people with schizophrenia. As part of this study, the 5,025 adults who were interviewed were asked about their newspaper-reading and television-viewing habits and their preferences for social distance were assessed via the Social Distance Scale.	After taking into account a range of confounders, the desire for social distance from people with schizophrenia increased as a direct linear function of amount of television viewing (irrespective of channels viewed), but there was a much less pronounced relationship between desire for social distance and newspaper readership. The latter depended on the type of newspapers that were typically read (with tabloids and regional newspapers being associated with a higher preference for social distance).
Bayar et al (2009)	4	Turkey	Undifferentiated mental disorders	Internet	Evaluated the efficacy of a web-based anti-stigma program in reducing stigma among mental health professionals. Two hundred and five trainee or fully-qualified psychiatrists were recruited and randomly assigned to receive the program (the intervention group) or receive nothing (the control group). The intervention group received an informative email about stigma and then completed a questionnaire on stigmatising attitudes towards people with mental disorders; the control group just completed the questionnaire.	The intervention group was significantly less likely to display stigmatising attitudes, particularly ones related to social distance.

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
Bengs et al (2008)	1	Sweden	Depression	Newspapers	Retrieved 26 newspaper articles portraying people with depression that were published in Swedish daily newspapers in 2002. Explored these articles for themes and gender representations, using qualitative analysis techniques.	Four themes were identified: 'displaying a successful façade'; 'experiencing a cracking façade'; 'losing and regaining control'; and 'explaining the illness'. Articles about women with depression tended to be detailed and quite emotional; articles about men with depression tended to be 'straighter' and often described a more dramatic onset.
Bilic and Georgaca (2007)	1	Serbia	Undifferentiated mental disorders	Newspapers	Retrieved articles on mental illness from Serbian daily newspapers in 2003 and 2004, and used discourse analysis to examine the way in which mental illness was framed.	Three key discourses were identified in the 165 retrieved articles. The first portrayed people with mental illness as dangerous by associating them with criminality, violence and unpredictability. The second was biomedical in nature and relied on expert opinions from psychiatrists and other mental health professionals. The third was specific to the Serbian context and related mental disorders to that country's socio-political upheaval.
Boke et al (2007)	1	Turkey	Schizophrenia	Newspapers	Searched the online versions of 12 national Turkish newspapers from 1 January 2001 to 1 May 2006 for articles that used variants of the term 'schizophrenia'. Coded the use of the term as being made in reference to the disorder or being used metaphorically.	In total, 878 articles were identified (i.e., one reference every 2.2 days). In 491 articles (56%), the term was used in reference to the disorder and in 387 (44%) it was used metaphorically. In both cases, the majority of articles had negative connotations.
Borzekowski et al (2009)	2	United States	Undifferentiated mental disorders	Mixed media; television; Internet	Interviewed one hundred people with severe mental disorders, seeking information about how they used the media to educate themselves about health issues.	The most common information source was television (91% of the sample had a television and 74% indicated that it was a primary source of information). Only 36% reported having ever used the Internet, and only half of these reported that they had sought health-related information online.
Brooks (2009)	1	United	Eating disorders	Radio	Searched the 'health' archives of four	The corpus consisted of 28 hours of radio

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
		Kingdom			major radio stations in the United Kingdom for talk-back discussions about eating disorders broadcast between 2004 and 2007. Transcribed these and considered the transcriptions alongside exemplar recordings. Examined the language used to construct eating disorders by various agents (callers with eating disorders, mental health professionals and radio hosts).	programming from 33 different radio programs and featured 144 individual callers. Overall, the study demonstrated that people with eating disorders utilised various discursive practices that portrayed them as passive individuals, assigning agency from themselves to the disorder itself.
Chopra and Doody (2007a)	1	United Kingdom	Schizophrenia	Newspapers	Identified all articles that made reference to schizophrenia that were published in local newspapers in Nottingham (the <i>Nottingham Evening Post</i>) and Dorset (the <i>Daily Echo</i> and <i>Dorset Echo</i>) between 1 January 2003 and 25 May 2006. Nottingham has a high crime rate and Dorset a low one, and the study examined whether this had an impact on the way in which schizophrenia was portrayed.	In total, 98 newspaper articles were retrieved (55 from Nottingham and 43 from Dorset). There was no statistically significant difference in the portrayal of schizophrenia. Across both locations, 36% of articles were negative in tone, 57% were neutral and 7% were positive. A person with schizophrenia or a carer of someone with the disorder was interviewed in only six articles (6%); in all of these articles the tone was either positive or neutral.
Chopra and Doody (2007b)	1	United Kingdom	Schizophrenia	Newspapers	Used a similar methodology to Duckworth and Halpern (2003). Searched six major British newspapers (three broadsheets and three tabloids) for the 600 most recent articles containing the term 'schizophreni*' and the 600 most recent articles containing the term 'cancer*'. Categorised the articles according to the way in which each term was used.	Eleven per cent of the schizophrenia articles used the term metaphorically. The equivalent figure for the cancer articles was 2%. When it was used in a metaphorical manner, the term 'schizophrenia' typically described something that was split or discordant in some way (e.g., a fashion style or a political attitude).
Clarke (2009)	1	United States and Canada	Depression (in males)	Magazines	Investigated the portrayal of depression in magazines which predominantly targeted young males in the United States and Canada, namely <i>Esquire</i> , <i>Men's Health</i> and <i>Sports Illustrated</i> . Using the <i>Reader's</i>	In total, 30 articles were identified. Themes in these articles were consistent with stereotypes about depression in men; discourses revolved around success at work, ignorance of feelings and reluctance to seek

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
					<i>Guide to Periodical Literature</i> , searched for articles in issues of these magazines from 2000 to 2007 and conducted a content analysis of retrieved articles.	help. Some articles also mentioned the relationship between violence and depression. In the main, articles indicated that the etiology of depression is biochemical and/or genetic, although a few discussed the possible effects of the socioeconomic and gendered experiences of maleness and masculinity.
Clarke (2010a)	1	United States and Canada	Depression (in children)	Magazines	Looked at how childhood depression was portrayed in magazines in the United States and Canada from 1983-2008. Articles identified through the <i>Reader's Guide to Periodicals</i> , and examined using frame analysis.	Twenty nine articles were identified but full texts were only available for 15 of these. In the 15 articles, childhood depression was portrayed in a medicalised manner, and three themes emerged: (1) childhood depression is real, biologically-rooted and relatively common; (2) childhood depression can be dangerous if it is not treated; and (3) childhood depression can have multiple causes but the role of the parent is to observe the child and seek help.
Clarke (2010b)	1	United States	Depression (in African Americans)	Magazines	Explored the portrayal of depression in three high-circulation African-American magazines in the United States (<i>Ebony</i> , <i>Essence</i> and <i>Jet</i>), examining both manifest (obvious and explicit) and latent (perhaps unintended) content. All relevant articles from 2000 to 2007 were manually retrieved.	In total, 43 articles were retrieved. Depression was presented in an ambiguous and confusing way, which was often tied to cultural identity. Often the causes and treatments of depression – and even its existence – were presented in a way that differed from that in magazines targeting more general audiences. There was considerable discourse about the involvement of the community and the church in the lives of African American people with depression.
Clarke and Gawley (2009)	1	United States and Canada	Depression	Magazines	Examined portrayal of depression in high circulation magazines with diverse audiences in the United States and Canada from 1980 to 2005, using the <i>Readers'</i>	Depression became more medicalised over time; early articles offered a variety of explanations regarding underlying causes, whereas later ones tended to be more

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
					<i>Guide to Periodical Literature</i> to identify them. Conducted a qualitative analysis of manifest (explicit) and latent (implicit) messages, comparing articles from the 1980s with those from the 1990s and 2000s.	'reductionistic'.
Clayton et al (2009)	2	United States	Undifferentiated mental disorders; substance use disorders	Internet	Surveyed 100 people with severe mental illness attending community mental health clinics about their Internet usage.	Only one third (36%) had used the Internet, and use was particularly low among participants with substance use disorders (23%). Nineteen of the 33 participants who had used the Internet (58%) had used it to access health information, usually related to mental health.
Clement and Foster (2008)	1	United Kingdom	Schizophrenia	Newspapers	Conducted a content analysis of five national newspapers at two different time points (1996 and 2005), with a view to assessing whether there had been improvements in the way in which schizophrenia was reported. Assessed articles for quality against guidelines for reporting.	When potential confounders were controlled for, there was no significant difference in the proportion of articles which: used stigmatising descriptors (14% in 1996; 14% in 2005); used language that equated a person with the disorder (78% in 1996; 53% in 2005); failed to put the risk of violence into perspective in instances where a violent act by a person with schizophrenia was reported (97% in 1996; 99% in 2005); or used of the term 'released' to refer to discharge from a mental health unit (67% in 1996; 78% in 2005). There was a significant decrease in the proportion of articles which: made metaphoric use of schizophrenia terms (29% in 1996; 18% in 2005), but these improvements were driven by broadsheets; tabloids made increasing use of metaphoric references.
Conrad (2001)	1	United States	Undifferentiated mental disorders (though with an	Newspapers; magazines	Examined the news coverage of genetics and mental illness (particularly bipolar disorder and schizophrenia) over a 25 year	The dominant frame in these articles was 'genetic optimism'. This frame comprised three elements: (1) a gene for the disorder

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
			emphasis on bipolar disorder and schizophrenia)		period, emphasising the period 1987-1994. Used a sample of 110 articles from five major United States newspapers and three news magazines..	exists; (2) this gene will be found; (3) this will have a positive impact on prevention and treatment. New genetic discoveries were heralded as significant breakthroughs, but were later disconfirmed. These disconfirmations did not dampen the genetic optimism of subsequent articles, however. Articles were generally scientifically accurate but the genetic optimism frame misrepresented some results, overstated the role of genetics in mental disorders, and presented a black-and-white picture which left no room for debate
Corrigan et al (2005)	1	United States	Undifferentiated mental disorders	Newspapers	Identified articles on mental illness that were published in 70 major US newspapers over a six one-week periods in 2002 (all newspapers with a circulation of over 250,000, and the highest-circulation newspaper in any state without a newspaper matching this criterion). Retrieved articles that had mental illness as their primary focus and focused explicitly on adults or children/adolescents. Thematically coded these articles into four groups: dangerousness; blame; treatment and recovery; and advocacy action.	In total, 3,353 articles were retrieved. Thirty nine per cent of all articles dealt with the theme of dangerousness and violence, and very few of the treatment-related stories addressed recovery. On the positive side, however, very few articles blamed individuals for their disorders (most that considered etiology posited genetic and/or environmental causes) and one fifth of all articles contained advocacy themes (e.g., references to the need for additional resourcing for mental health services).
Corrigan et al (2007)	4	United States	Schizophrenia	Documentary film	Developed two short videotapes about schizophrenia in order to examine their impact on people's attitudes towards schizophrenia. One involved a person with schizophrenia describing his experiences of the onset and course of the disorder and his progress towards recovery (the 'contact' video). The other involved the same person providing information about	The 'education' video had limited effects, although it was associated with improvements in attribution (i.e., participants were less likely to blame people with schizophrenia for their condition after watching it). The 'contact' video was associated with greater improvements in a range of areas; those who viewed it were less likely to pity those with schizophrenia,

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
					schizophrenia without disclosing that he himself had the disorder (the 'education' video). Two hundred and forty four community college students were randomly assigned to view either the 'contact' video or the 'education' video and completed an assessment of their attitudes towards schizophrenia before and after doing so.	more likely to see them as empowered, and less likely to see them as needing to be coerced into treatment or segregated from others. These effects were maintained at one week follow-up.
Coverdale et al (2002)	1	New Zealand	Undifferentiated mental disorders	Newspapers	Examined the depictions of mental illness in articles from a national sample of New Zealand newspapers, collected prospectively over a four week period.	The search strategy yielded 600 articles, 61% portrayed people with mental illness as dangerous, 47% as criminal, and 40% as vulnerable. Only 27% depicted people with mental illness in a positive manner.
Day and Page (1986)	1	Canada	Undifferentiated mental disorders	Newspapers	Conducted a content analysis of 103 newspaper articles drawn at random from eight major daily newspapers between 1977 and 1984. Coded statements in these articles in terms of tone ('positive', 'negative' and 'neutral') and psychiatric ideology ('traditional' and 'non-traditional'), and considered the individuals described in these articles in terms of a range of descriptive characteristics.	Over 80% of articles used a negative tone and almost three quarters reflected non-traditional ideology. The stereotypical individual portrayed was a single male in his mid-30s who was unemployed and hospitalised due to schizophrenia
Dickerson et al (2002)	2	United States	Undifferentiated mental disorders; schizophrenia	Mixed media	Explored the experiences with stigma of 74 outpatients with schizophrenia, using the Consumer Experiences of Stigma Questionnaire (CESQ).	All but one participant indicated that they had had at least one stigma experience, and 43% said that they had seen or heard offensive media accounts about people with mental illness.
Dietrich et al (2006)	3	Germany	Undifferentiated mental disorders; schizophrenia	Newspapers	Randomly allocated 206 students (aged 13-18) to read one of two newspaper articles. The first was an amalgam of two actual articles that described violent crimes by people with histories of psychiatric service use (negative article, ultimately read by 75	Prior to reading the articles, the likelihood of participants describing a person with a mental illness as dangerous and violent was the same. Afterwards, participants who read the negative article were more likely to use these descriptors and their counterparts who

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
					participants), and the second provided factual information about schizophrenia (information article, ultimately read by 92 participants). One week prior to reading the article and three weeks subsequent to doing so, participants completed a self-administered questionnaire that assessed their attitudes towards people with mental illness.	read the information article were less likely to do so.
Dubugras et al (2011a); Dubugras et al	1	Brazil	Schizophrenia	Newspapers	Examined the portrayal of schizophrenia in articles published in Brazil's largest national newspaper, <i>Folha de Sao Paulo</i> , in 2007 and 2008.	In total, 219 articles were identified. Seventy five of these described people with the disorder; schizophrenia was the main theme in 43 of these and a secondary theme in 32. In the main, these presented accurate information about schizophrenia, although nine (12%) linked it to multiple personalities. Seventeen (23%) described crimes allegedly perpetrated by people with schizophrenia. One hundred and forty four of the articles used the term out of a medical context, seventy five did so in a metaphorical or slang way. Of the 75, 60 (80%) made negative references (e.g., indicating incoherence or splitting) and 14 (20%) used metaphors with positive connotations (e.g., associating schizophrenia with creativity).
Duckworth and Halpern (2003)	1	United States	Schizophrenia	Newspapers	Randomly selected 1,740 articles that mentioned schizophrenia or cancer from major United States newspapers in 1996 and 1997. Coded the context in which these illnesses were mentioned.	One per cent of cancer-related articles mentioned cancer in a metaphorical sense whereas 28% of the schizophrenia articles made metaphorical references to schizophrenia. In general, the metaphorical uses of the term 'schizophrenia' were ones that could contribute to misunderstanding and stigma associated with the disorder (e.g.,

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
						equating it with split personality).
Farrow and O'Brien (2005)	1	New Zealand	Undifferentiated mental disorders	Newspapers	Used discourse analysis to explore newspaper coverage of a mental health nurses' strike which occurred in Canterbury in 2001/02.	Three main themes emerged. The first was that people with mental illness are 'dangerous', and that the nurses' strike was placing the community at risk; the second was that people with mental illness are 'powerless victims', who would suffer as a result of the nurses' actions; and the third was that nurses are avaricious and lazy. Mental health nurses themselves were rarely asked to provide comment on the strike, or on its potential impact for consumers.
Finkelstein and Lapshin (2007)	4	United States	Depression	Internet	Developed a web-based program designed to combat the stigma associated with depression. The program used adult learning theories to address cognitive, emotional and behavioural components of stigma. Forty two consecutive users of the program (university staff and students) were involved in the study. The authors assessed knowledge of and attitudes towards depression before and after the use of the program.	After using the program people's knowledge about depression improved and their desire for social distance from someone with depression decreased.
Foster (2006)	1	United Kingdom	Undifferentiated mental disorders	Newspapers	Examined the way in which the British media presented information about the 2002 Mental Health Bill, which was introduced to replace the existing Mental Health Act. The Bill was controversial because it expanded the definition of mental disorders to include any impairment of mental functioning and allowed for restrictive detention of people with such disorders. Debate about the Bill was played out in the media, with much of it focusing on the fact that the Bill infringed	In total, 256 relevant newspaper articles were printed in the three-year period surrounding the introduction of the Bill. The majority of these presented a negative view of the Bill, suggesting it was too repressive. Within this context, the risk of people with mental illness committing violent or criminal acts was downplayed. Instead, however, there was an implicit suggestion that people with mental illness are to be pitied.

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
					the rights and freedoms of people with mental illness.	
Francis et al (2003)	1	Australia	Undifferentiated mental disorders; schizophrenia; substance use	Mixed media	Sub-study of Pirkis et al (2001) and Francis et al (2004) conducted during the first period of the Media Monitoring Project, looked at the extent for specific mental illnesses to be reported in the context of crime. Focused on a random sample of identified items (n=1,126).	Only 6% of items involved mental illness being reported in the context of crime. However, a substantial proportion of items on schizophrenia (16%) and substance abuse (11%) did so, as did 11% of items about undifferentiated mental disorders. By contrast, only a small proportion of items on depression (3%) and other disorders (6%) referred to crime, and none of the items on eating disorders, dementia or stress did so.
Francis et al (2005); Dare et al (2008)	1	Australia	Depression	Mixed media	Sub-study of Pirkis et al (2001) Francis et al (2004) and Pirkis et al (2008). Took a random subset of items from the Media Monitoring Project dataset (1,129 in 2000/01 and 1,606 in 2006/07) and considered the reporting of depression in more detail.	In each year, depression was the most commonly-reported specific disorder (accounting for 18% of all items in 2000/01 and 20% in 2006/07); only items which were about undifferentiated mental disorders outnumbered items on depression. Depression-related items showed an increase in focus on individuals' experiences (24% in 2000/01 versus 45% in 2006/07) and a decrease in references to policy/program initiatives (36% in 2000/01 versus 23% in 2006/07). Depression-related items showed an improvement in quality over the study period. For example, these items were less likely to be sensationalist, less likely to use inappropriate language, and more likely to include information on help services. Items related to other categories of mental illness showed more variability in terms of their nature and quality over time.
Frank et al (2006)	4	United States	Undifferentiated mental disorders	Mixed media	Evaluated a large-scale multi-media campaign that was designed to increase help-seeking from disaster mental health	Hotline calls increased as a function of campaign spending, suggesting that the campaign was effective in encouraging

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
					counseling services in New York following the attacks of September 11, 2001. Tracked monthly spending on the campaign (as a proxy for its intensiveness) and monthly calls to a referral hotline	people to seek help.
Gattuso et al (2005)	1	Australia	Depression (in females)	Magazines	Searched the two highest-circulation Australian women's magazines for younger and older women (<i>Cosmopolitan</i> and the <i>Australian Women's Weekly</i> , respectively) for articles mentioning depression that were published between July 1998 and December 1999 and July 2001 to December 2002. In the intervening period, Australia's <i>National Action Plan for Depression (NAPD)</i> had been launched.	The way in which depression was portrayed in women's magazines was not consistent with the depression literacy literature that underpinned the <i>NAPD</i> . The former framed depression as an individual problem that was largely amenable to self-management, with support from social networks. The latter emphasised biomedical and psychosocial approaches and help-seeking from professionals.
Goulden et al	1	United Kingdom	Undifferentiated mental disorders; schizophrenia; depression	Newspapers	Conducted a content analysis on a sample of 1,361 articles from selected newspapers in 1992, 2000 and 2008. Classified the articles into 'bad news' themes ('danger to others'; 'suicide and self-injury'; 'victimisation and severe mistreatment'; and 'strange, inept or burdensome') and 'good news' themes ('understanding mental illness'; and 'services and advocacy'), and quantified the proportion of articles falling into each theme in each of the three years.	There was a decrease in the proportion of 'bad news' stories over time and a corresponding increase in the proportion of 'good news' stories, both of which were statistically significant. There were differences by diagnosis, however. Articles on undifferentiated mental disorders and depression dominated and were largely responsible for the above trends. Articles on schizophrenia were less common but remained largely 'bad news' stories across all years. There were also differences according to newspaper type, with the relative proportion of 'bad news' stories being higher in tabloids than in broadsheets across all years.
Granello and Pauley (2000)	3	United States	Undifferentiated mental disorders	Television	Examined data from a survey of 154 students. Isolated 53 who indicated that the primary source of their primary source of information about mental illness was	Numbers of hours of television watched per week was significantly and positively associated with intolerance towards people with mental illness.

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
					television, and split them into five groups based on the amount of television they viewed each week (0-5 hours, 6-10 hours, 11-20 hours, 21-30 hours, ≥30 hours). Then looked at the relationship between viewing time and attitudes towards people with mental illness as assessed by the Community Attitudes towards Mental Illness (CAMI) questionnaire.	
Granello et al (1999)	2, 3	United States	Undifferentiated mental disorders	Mixed media	Surveyed 102 undergraduate students, asking them to indicate their primary source of information about mental illness and to complete the Community Attitudes towards Mental Illness (CAMI) questionnaire.	Those who indicated that the electronic media was their primary source of information were less tolerant of people with a mental illness than those who received information from any other source.
Grierson and Scott (1995)	3	United States	Undifferentiated mental illness	Newspapers	Supplemented data from a population-based survey of 590 residents of Alabama with data from their own survey of 60 newspaper editors. Both surveys explored respondents' attitudes towards people with mental illness.	Editors were less likely than the general public to view people with mental illness as unpredictable and dangerous, but less likely to want to employ them.
Griffiths et al (2004)	4	Australia	Depression	Internet	Recruited 525 adults with elevated symptoms of depression and randomly assigned them to access a depression literacy website (BluePages) or a cognitive-behavioural therapy skills training site (MoodGYM) or to take part in weekly interview-based discussions about depression.	Those who were exposed to the Internet sites experienced greater reductions in stigmatising attitudes from pre- to post-intervention than those in the control condition.
Hazelton (1997)	1	Australia	Undifferentiated mental disorders	Newspapers	Conducted a discourse analysis of 1994 coverage of mental illness in two Australian newspapers, one national (the <i>Australian</i>) and one local (the <i>Launceston Examiner</i>). Manually scanned these newspapers for relevant articles.	In total, 490 articles were identified. Most commonly, these were about 'mental disorders and problems'. Less common were articles addressing themes of 'psychiatric treatment', 'mental health, human rights and the law', and 'mental health and celebrities'.

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
						The majority of articles were framed according to one or more of the following semantic domains: 'disorder, crisis and risk', 'bizarre and curious', 'medical-scientific marvels', 'moral tales' and 'lay wisdom and commonsense remedies'. 'Disorder, crisis and risk' was the most common.
Henson et al (2009)	1	Australia	Undifferentiated mental disorders	Television	Used a purpose-designed database on television news and current affairs items relating to health, and identified all items that mentioned mental illness that were broadcast on Australian free-to-air television stations from May 2005 to October 2007. Conducted content and frame analyses of these in order to identify news actors (people with mental illness, experts and politicians) and to determine whether these actors were depicted as 'one of us' or 'one of them'.	In total, 538 items were identified. Two hundred and sixty four of these (49%) included presentation of a person with a mental illness, 174 (66%) of which were either neutral or positive. Experts and politicians also described people with mental illness in neutral or positive ways. Overall, 55% of items were positive and 'recovery focused', 29% were neutral, and 12% were negative.
Henson et al (2010)	1	Australia	Undifferentiated mental disorders	Television	Examined the 264 television items which included representations of an individual with mental illness identified by Henson et al (Henson et al., 2009) in more detail. Investigated whether there were differences in the nature of portrayal depending on the age of the person described.	Compared with adults, media portrayal of young people was more mixed. Positive themes were apparent in only 29% of items including young people, as opposed to 66% of the full sample. The figures for negative themes were reversed (26% for young people, 9% for the full sample). However, when the analysis was limited to first-person depictions, these differences disappeared.
Holman (2011)	1	United States	Postpartum depression and postpartum psychosis	Newspapers; magazines	Took a purposive sample of articles on post-partum depression and post-partum psychosis published in mainstream newspapers and magazines in the United States between 1998 and 2008.	Articles about postpartum disorders used as exemplars women who had committed acts of violence against their children far more commonly than women who just had the disorder. They portrayed extreme symptoms and behaviour as more prevalent than they are in reality. Having said this, articles

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
						became more measured over time.
Horgan and Sweeney (2010)	2	Ireland	Undifferentiated mental disorders; depression	Internet	Surveyed 922 university students about their views on using the Internet for mental health information and support.	Thirty one per cent of participants had previously searched for mental health information online; usually their searches were specifically about depression. Sixty eight per cent indicated that they would use the Internet for support if they had mental health needs, but 79% said that face-to-face support would be preferable.
Jorm et al (2005); Jorm et al (2006)	4	Australia	Depression	Mixed media	Conducted cross-sectional mental health literacy surveys in 1995 and 2003-04 (i.e., before and after the inception of <i>beyondblue</i> , Australia's national depression initiative). Compared findings in states and territories that provided funding for <i>beyondblue</i> (high exposure states) and did not provide funding (low exposure states).	Those in high exposure states showed greater increases in awareness about depression over time than their counterparts in low exposure states.
Kalucy et al (2011)	1	United Kingdom	Undifferentiated mental disorders	Newspapers	Considered whether homicides committed by people with a history of mental illness are more likely to be reported than homicides by people with no such history. Identified all 577 individuals who had committed homicide in England and Wales between April 2000 and March 2001 from the Homicide Index, and determined whether or not they had had contact with mental health services through data from the National Confidential Inquiry into Suicide and Homicide by People with Mental Illness. Searched for newspaper articles on homicides and identified all of these that referred to any individual perpetrator in the cohort. Conducted a logistic regression to estimate the association between previous contact with	Homicides by perpetrators with a mental illness were no more likely to be reported than those by perpetrators with no psychiatric history.

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
					mental health services and likelihood of the homicide being reported.	
Khazaal et al (2008)	2	Switzerland	Undifferentiated mental disorders	Internet	Asked patients attending a psychiatric outpatient clinic to complete a self-administered questionnaire about their use of the Internet for general and medical information.	Of the 319 respondents, 200 were Internet users and 137 (69%) of these had used the internet to find health-related information on a broad range of mental disorders. Most commonly, they sought information on treatment (81%) and diagnosis (73%), but they also searched for details about services (17%) and consumer groups (17%). Information was only partially found or not found by 55%.
Kiropoulos et al (2011)	4	Australia	Depression	Internet	Evaluated a multilingual website designed to improve depression literacy, reduce the stigma associated with depression and provide information about depressive symptoms. Two hundred and two Greek- and Italian-born immigrants were randomly assigned to an intervention group which was exposed to the website and a control group which took part in an interview-based discussion about depression. Assessments of the outcome variables took place at baseline, immediately following exposure (or non-exposure) to the website, and at one week follow-up.	The intervention group showed greater gains in depression literacy and their personal levels of stigmatising attitudes reduced.
Kuosmanen et al (2010)	4	Finland	Undifferentiated mental disorders	Internet	Evaluated a web-based program designed to deliver information to people with severe mental illness, utilising a convenience sample of 21 service users, 20 nursing students and 35 registered nurses..	All participants were positive about the content, structure and appearance of the website. Service users were the most satisfied but required support when using the Internet
Lam-Po-Tang and McKay (2010)	2	Australia	Undifferentiated mental disorders	Internet	Surveyed 196 attendees at two psychiatric outpatient clinics with a view to gauging their Internet use, they types of	Seventy eight per cent of those with access to the Internet reported using it to search for information about mental health. Typically,

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
					information they sought, whether they discussed this information with their treating psychiatrists, and their perceptions about the influence of this information on their decision-making.	they used it to find information about symptoms (79%), treatment (79%), side effects (77%) and diagnosis (70%); relatively fewer used it to find information about service providers (25%). Thirty eight per cent of those who searched for mental health information on the Internet discussed this with their treating psychiatrist, and 39% said it influenced their healthcare decisions. Among the total sample, 21% perceived the reliability of Internet information as 'very reliable'; 66% as 'fairly reliable'; 12% as neither reliable nor unreliable; and 1% as 'unreliable'.
Laroi and Van der Linden (2009)	4	Switzerland	Schizophrenia	Documentary film	Administered a questionnaire to 115 undergraduate psychology students about their knowledge of and attitudes towards schizophrenia. The following week the students were shown a documentary film depicting the lives of people with the disorder (<i>Radio Schizo</i>) and asked to complete the questionnaire again.	Participants' displayed significantly more positive attitudes towards schizophrenia after watching the film; in particular they held less stereotypical views, were less derogatory about people with the disorder, and were less likely to seek social distance from them.
Leach et al (2007)	2	Australia	Depression; schizophrenia	Internet	Surveyed 3,988 adults to explore the factors associated with rating websites, bibliotherapy and health educators as helpful sources of information for a person described as having depression alone, depression with suicidal thoughts, early schizophrenia or chronic schizophrenia.	Participants were more likely to rate bibliotherapy and health educators as helpful compared with websites. Various socio-demographic factors were associated with these ratings. In addition, those who were presented with depression and early schizophrenia vignettes were more likely to rate websites and bibliotherapy as helpful, whereas those who were presented with depression with suicidality were more likely to rate health educators as helpful.
Lopez (1991)	2, 3	United States	Undifferentiated mental disorders	Mixed media	Administered a self-completion questionnaire to 92 high school students.	There was evidence of negative attitudes, particularly with respect to social distance.

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
					The questionnaire assessed attitudes towards mental illness via the Opinions about Mental Illness (OMI) and Views about Mental Health (VMHP) scales. It also explored the sources of these attitudes.	The majority of participants (54%) ranked the mass media as their first or second most important source of these attitudes.
Lupton (1993)	1	Australia	Undifferentiated mental illness	Newspapers	Examined the press coverage of a Royal Commission into deep sleep therapy as administered at Chelmsford Private Hospital in New South Wales from 1963 to 1979, using discourse analysis. Articles were retrieved from Australian metropolitan newspapers between 17 December 1990 and 17 January 1991.	During the study period, 79 newspaper articles were identified. These articles portrayed mental health facilities as archaic and psychiatric treatment as oppressive. However, they challenged the power relationship between medical professionals and people with mental illness and promoted the human rights of the latter group (albeit presenting them in a way which tended to suggest they were vulnerable and weak).
Magliano et al (2011)	1	Italy	Schizophrenia	Newspapers	Examined the way in which the term 'schizophreni*' was used in 22 Italian newspapers in 2008.	In total, 1,087 articles were identified. The term was used as a metaphor in 74% of these, and in relation to people with the disorder, or the disorder itself, in 26%. The metaphoric articles most commonly involved incoherence or contradiction (85%), followed by eccentricity/oddness (11%) and dangerousness/aggressiveness (4%). The non-metaphoric articles frequently referred to homicides (49%) and assaults (43%).
Matas et al (1985)	3	Canada	Undifferentiated mental disorders	Mixed media	Examined the relationship between psychiatry and the media by administering an attitudinal questionnaire to 20 journalists, 20 psychiatrists, 20 medical outpatients with no history of mental health problems, 40 inpatients with mental disorders and four patients with mental disorders with personal experience of media coverage.	All groups were equally accepting of mental disorders, including the journalists. All gave low ratings for media coverage of mental illness, and journalists explained the poor coverage in terms of sensationalism selling, cost and time.
Matas et al (1986)	1	Canada	Undifferentiated	Newspapers	Drew a random sample of 90 articles from	There was no difference between the earlier

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
			mental disorders		two newspapers (the <i>Winnipeg Free Press</i> and the <i>Globe and Mail</i>) over a twenty year period, with a view to determining whether reporting had changed over time. Selection process yielded 15 articles from each paper from each of the following years: 1961, 1971 and 1981. Also retrieved newspaper articles relating to 22 cases of 'criminal insanity' identified from the <i>Winnipeg Free Press</i> and compared their content with the relevant forensic assessment reports. Six independent raters rated each article according to the Newspaper Article Rating Instrument (NARI), developed by the authors, which comprises 25 items and assesses articles' in terms of their profile, content, attitudes, journalism quality, scientific accuracy and tone.	articles and the later ones on most of the items of the NARI. The exceptions were that, by comparison with the earlier years, articles written in 1981 tended to be shorter, had more appropriate headlines, and demonstrated greater levels of 'clarity', 'interest' and 'accuracy'. The separate analysis of the 22 cases of 'criminal insanity' found that articles were generally rated as 'positive' and that there was good agreement between the newspaper coverage and the forensic assessment reports in each case.
McVey et al (2009)	4	Canada	Eating disorders	Internet	Evaluated a web-based program designed to improve knowledge of eating disorders among teachers and public health professionals. One hundred and sixty seven participants took part in the evaluation.	The program was found to be effective in improving knowledge regarding facts about dieting and increasing efficacy in fighting weight bias.
Meagher et al (1995)	1	Ireland	Undifferentiated mental disorders	Newspapers	Looked at the coverage of psychiatry in Irish newspapers over a six month period in 1993, examining the psychiatric issues covered and the tone used.	The study identified 380 newspaper articles, the equivalent of 1.04 articles per newspaper per day. 'Violence/dangerousness' and 'suicide/parasuicide' were the most common psychiatric issues featured in the articles. About two thirds of the articles were 'supportive' or 'neutral' in tone. Mental health professionals rarely contributed to articles, but when they did there was a tendency for them to be 'supportive' in tone.

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
						Articles in tabloid newspapers were more likely than those in broadsheets to be 'sensationalist', and less likely to involve contributions from mental health professionals.
Medvene and Bridge (1990)	4	United States	Undifferentiated mental disorders	Documentary film	Examined the impact of a television documentary (<i>Back Wards to Back Streets</i>) on knowledge of and attitudes towards mental illness and community treatment options in the era of deinstitutionalisation. The film contained personal interviews with 14 stable, articulate people who had been discharged from traditional, long-term psychiatric facilities to community care. Screenings were held in Albany and New York (attended by 405 and 136 people, respectively). Half of each audience was randomly assigned to complete a questionnaire pre- and post-the screening; the other half of each audience completed the post-questionnaire only.	The New York audience showed gains in knowledge and their attitudes and beliefs improved. The same effect was not apparent in Albany, but this may have reflected a ceiling effect (baseline knowledge and attitude levels were higher in the latter city).
Minnebo and Van Acker (2004)	3	Belgium	Undifferentiated mental disorders	Television	Surveyed 207 high school students about their television viewing habits. Also asked them to indicate the likelihood of a person with a mental illness committing a violent act and their agreement with various statements that summarised attitudes towards mental illness.	The relationship between overall cumulative exposure to television and perceived likelihood of a person with a mental illness committing a violent act was not significant. However, frequent viewers thought less of the ability of people with a mental illness to lead a normal life and were keener to keep them out of everyday life. These relationships were moderated by other variables, including the perceived realism of media presentations of people with mental illness.
Morgan and Jorm (2009)	2, 3	Australia	Undifferentiated	Mixed media	Interviewed 3,746 Australian 12-25 year	Only a minority of the sample could recall a

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
			mental illness		olds to see what news stories about mental illness they could recall seeing or hearing in the past 12 months, and whether the type of story was associated with stigma (and help-seeking).	news story about mental illness, and these typically involved crime and violence, mental health system failures and disclosures about mental illness by prominent figures. Recall of stories about crime and violence were associated with a reluctance to reveal a mental health problem; recall of stories about disclosures of mental illness by prominent figures were associated with a perception that individuals with mental illness are sick rather than weak. No type of story predicted willingness to seek help.
Morrison and Libow (1977)	4	United States	Undifferentiated mental disorders	Newspapers	Conducted three cross-sectional community-based surveys to determine public awareness of a mental health centre located in Cohoes, New York. The first survey was conducted prior to a concerted newspaper campaign designed to increase the visibility of the centre (n=105), the second immediately after the campaign (n=100), and the third six weeks later (n=106).	Public awareness increased from the first survey to the second and remained stable from the second to the third.
Nairn (1999)	1	New Zealand	Undifferentiated mental illness	Newspapers	Examined whether the use of psychiatrists as an information source improved media portrayal of mental illness. Involved analysis of seven articles from the 12 considered by Allen and Nairn (1997). Three of these sourced information from psychiatrists and four did so from lay people.	The psychiatrists were elevated to the realm of experts, and some of the information they presented was very positive. Their efforts were undermined, however, by various journalistic devices designed to make the stories more newsworthy (e.g., the use of unattributed negative statements).
Nairn and Coverdale (2005)	1	New Zealand	Undifferentiated mental disorders	Newspapers	Sub-study of Coverdale et al (2002) Looked more closely at those articles in which someone with a mental disorder was quoted directly, in a sub-study that was run alongside the main study.	Only five articles quoted someone with a mental disorder directly (0.8% of the total sample), but in these articles the 'consumer voice' was associated with a very human depiction of mental illness emanating from a

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
						credible source.
Nairn et al (2001)	1	New Zealand	Undifferentiated mental disorders	Newspapers	Sub-study of Coverdale et al (2002) and Nairn et al (2006). Took the 50 items that related to the Privacy Commission releasing an opinion about the disclosure of confidential information about Barry Ryder. They sourced a copy of the Privacy Commissioner's Case Note, which had been distributed by the New Zealand Press Association. These materials then underwent a discourse analysis.	Information from the Case Note was used accurately in the newspaper articles, but the presentation of this information was more negative in the media representations than it had been in the original source. Three negative themes ('vulnerability', 'risk of dangerousness and threat', and 'mental illness/psychiatric patient') and one potentially positive one ('human rights') were identified; the negative themes outweighed and masked the positive one.
Nairn et al (2006)	1	New Zealand	Undifferentiated mental disorders	Newspapers	Sub-study of Coverdale et al (2002) Identified reports of two specific individuals: (1) Barry Ryder, who had been released from a secure psychiatric unit and subsequently kidnapped and attempted to sexually abuse an 11 year old boy, and whose case became newsworthy again later when the Privacy Commissioner released an opinion about disclosure of confidential information about him by a psychiatric nurse; and (2) Stephen Anderson, who was receiving psychiatric treatment and shot and killed six people in a small township. Looked at instances where the two cases were reported on the same page in the same edition of the same paper. Examined these pairs of articles, using the concept of 'intertextuality' (i.e., the accumulation of meanings across different texts, where one image refers to another, or has its meaning altered by being 'read' in the context of other images).	There were 19 instances where the two cases were reported alongside each other. Three themes emerged: (1) promoting the rights of people with mental illness threatens public safety; (2) affected communities are characterised by passive victims and active heroes; and (3) people with mental illness are either untrustworthy and violent or passive and incompetent.

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
Nawkova et al (2009)	1	Czechoslovakia	Undifferentiated mental disorders	Newspapers	Examined the media messages relating to mental illness in Czechoslovakia's six most widely-read daily newspapers, drawing a sample of articles printed in five separate weeks in 2007.	In total, 184 articles were identified, 110 in broadsheets and 74 in tabloids. Seventy six per cent of tabloid articles presented negative messages. By comparison, 33% of broadsheet articles did so.
Nawkova et al (2012)	1	Croatia, the Czech Republic and Slovakia	Undifferentiated mental disorders	Newspapers; magazines	Examined the content of media messages about mental illness in terms of stigma in the six most widely-read newspapers and magazines in each of three Central European countries (Croatia, the Czech Republic and Slovakia). Articles were selected during five week-long periods in 2007, and analysed for content using a purpose-designed instrument.	Coverage of mental health issues differed to some extent across the three countries but was generally of poor quality. Over half of all articles contained negative statements reflecting stigma toward persons with mental illness.
Nunnally (1957); Nunnally (1961)	1, 2	United States	Undifferentiated mental disorders	Mixed media	Considered presentations of mental illness in a selection of newspapers, magazines, and radio and television stations. Surveyed community participants and mental health professionals. Compared mass media portrayals with public and expert attitudes towards mental illness with mass media portrayals, surveying community participants and mental health professionals.	Revealed a distorted picture in which the symptoms of mental illness symptoms were exaggerated, its causes and treatments were oversimplified, and it was usually presented in the context of horror, sin and/or violence. Public opinions did not differ greatly from those of mental health professionals; both had a reasonable understanding of mental illness. However, public opinion disagreed with media portrayal.
O'Hara and Clegg-Smith (2007)	1	United States	Eating disorders	Newspapers	Retrieved articles about eating disorders that were published in seven United States daily newspapers from 13 October 2004 to 13 October 2005.	After excluding two news events that were widely covered and would have biased the sample (the launch of a television comedy called 'Starved' and the battle over the end-of-life care of a woman with brain damage that may have been caused by heart failure resulting from bulimia), 210 articles were retrieved. Forty eight per cent of these ran in arts- and entertainment-related sections, often centring around celebrities who had or were purported to have eating disorders.

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
						Eating disorders were typically presented as an issue for young, white females. When causes were presented, they tended to be simplistic; usually only one cause was cited, and typically this was environmental (e.g., parental influences). Treatment and recovery was seldom discussed.
Olstead (2002)	1	Canada	Undifferentiated mental disorders	Newspapers	Overlaid a discourse analysis of 195 articles printed in two major Canadian newspapers (the <i>Globe and Mail</i> and the <i>Toronto Star</i>) between 1990 and 1999 with an examination of the textual strategies used to foster particular images of mental illness.	The study identified three key depictions of people with mental illness; the 'mentally ill criminal' was the most common, followed by 'class based illness' and then the 'passive patient'. In the case of the 'mentally ill criminal', linkages between criminality and mental illness were achieved by text that distinguished 'us' (the reader) from 'them' (people with mental illness) and a 'hierarchy of mental illness' that created different versions of mental illness with varying degrees of distance from what might be regarded as 'normal'.
Paterson (2007)	1	United Kingdom	Undifferentiated mental disorders	Newspapers	Used discourse analysis to identify ten frames in 3,185 stories about mental disorders that were run in the <i>Times</i> and the <i>Guardian</i> in the United Kingdom from 1985 to 2000: 'foreign'; 'legal'; 'drug'; 'feature'; 'trauma'; 'tragedy'; 'community care tragedy'; 'social policy'; 'inquiry report'; and 'sports/celebrity'. Considered 'moral judgements', or motives, behind the story.	Moral judgements were often sympathetic towards people with a mental illness, albeit typically in a paternalistic way (e.g., suggesting that they were helpless victims whom the system had failed).
Paykel et al (1997); Paykel et al (1998)	4	United Kingdom	Depression	Mixed media	Evaluated the impact of the <i>Defeat Depression</i> campaign, which was run in the United Kingdom between 1991 and 1996 and involved a mass media approach. Conducted three cross-sectional surveys of	Despite the fact that very few respondents could recall the campaign and the fact that attitudes towards people with depression were relatively high at baseline, there were some improvements. In particular, attitudes

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
					approximately 2000 people each – one in 1991, one in 1995, and one in 1997.	towards treatment for depression improved over time.
Penn et al (2003)	4	United States	Schizophrenia	Documentary film	Randomly assigned 163 undergraduate students to one of four experimental viewing conditions: (1) a documentary film about schizophrenia (<i>I'm Still Here</i>); (2) a documentary film about fears of being overweight (<i>Frontline</i>); (3) a documentary film about polar bears (<i>Great White Bear</i>); and (4) no documentary film. Shortly before and shortly after their viewing session, participants completed a battery of instruments that assessed attitudes towards schizophrenia, attributions about the disorder and intentions to interact with people with the disorder.	Compared with those in the other viewing sessions, those who saw the documentary film about schizophrenia were more likely to change their attributions about schizophrenia, being less likely to blame individuals for the disorder after seeing the film than they were beforehand. However, those who saw the documentary film about schizophrenia were no more likely to change their attitudes towards people with the disorder or their stated intentions to interact with people with the disorder.
Philo et al (1996); Philo et al (1994)	1	Scotland	Undifferentiated mental disorders	Mixed media	Looked at Scottish media coverage of mental illness during April 1993, sampling articles from both news and information media and entertainment media (reports from selected newspapers, magazine stories, and television news and current affairs shows and entertainment programs). Conducted a content analysis which revealed five different themes: 'comic images'; 'violence/harm to others'; 'violence to self'; 'prescriptions for treatment/advice/recovery'; and 'criticisms of accepted definitions of mental illness'.	Overwhelmingly, articles fell into the thematic category of 'violence/harm to others', and often they presented information in such a way as to misinform and bias the public. For example, news articles about the Waco siege in the United States carried headlines such as 'Save our souls from the maniacs' and 'Why be sorry for the Waco loonies?'
Philo et al (1996); Philo et al (1994)	2, 3	Scotland	Undifferentiated mental disorders	Mixed media	Investigated the relationship between media content and audience beliefs by running seven focus groups (six general groups and one group of mental health service users), each comprising around 10 participants the west of Scotland. Each	Around 40% of participants believed that serious mental illness was associated with violence and reported that both factual and fictional media sources underpinned this belief. Some people who had had a mental illness themselves or who had a friend or

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
					participant was also interviewed separately. Participants were asked questions about their beliefs about mental illness and the source of those beliefs.	relative who had done so (including those in the mental health service users group) rejected the dominant media message. Others, however, accepted it despite the fact that it did not tally with their own experiences.
Pirkis et al (2001); Francis et al (2004); Pirkis et al (2008)	1	Australia	Undifferentiated mental disorders	Mixed media	Conducted a project known as the Media Monitoring Project. Examined the way in which Australian newspaper, television and radio sources portrayed mental illness during a 12-month period in 2000/01, and repeated the exercise in 2006/07. In each year identifying and descriptive information was extracted from all media items and a random sample of media items were rated for quality according to pre-determined criteria.	In 2000/01, 13,389 items that made reference to mental illness were identified; in 2006/07 this number increased almost three-fold to 36,753. There was a proportional decrease in reference to policy/program initiatives, and a proportional increase in items concerning individuals' experiences and items discussing mental health care and/or services. Emphasis on the causes, symptoms or treatment of mental illness remained similar across time. There were significant improvements on almost all indicators of quality. Headlines were more likely to be accurate and consistent. Stories were less likely to be sensationalist, language was more likely to be appropriate, and stereotyping was less likely to occur. An individual and his/her mental illness were more likely to be separated, and mental illnesses were less likely to be presented as though they were all the same. Helpline information was also more likely to be presented. Although this is positive, there was still room for further improvement.
Pohjanoksa-Mantyla et al (2011)	2	Finland	Undifferentiated mental disorders	Internet	Conducted a nationally-representative population survey in Finland, receiving responses from 3,287 15-64 year olds. Asked them about the various information	Among all respondents, physicians and pharmacists were by far the most common source of information. However, respondents with a mental disorder were

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
					sources they used to find out about medicines, and also asked them whether they had been diagnosed with or treated for a mental disorder in the past 12 months.	significantly more likely than respondents with no mental disorder to use the Internet as a source (15% versus 8%).
Powell and Clarke (2006)	2	United Kingdom	Undifferentiated mental disorders	Internet	Conducted a survey of 917 general practice patients aged 18 or more, seeking information about their internet use and their experience of mental health problems.	Eighteen per cent of those classified as internet users had used the internet for information related to mental health; 23% of the subset who were experiencing current psychological distress and 32% of those with a history of mental health problems. Only 12% of the full sample, however, regarded the internet as the most accurate source of mental health information.
Powell and Clarke (2007)	2007	United Kingdom	Undifferentiated mental disorders	Internet	Conducted an interview study with a purposive sample of 36 mental health service users with Internet experience. Explored issues around mental health-related Internet use.	One of the main reasons interviewees used the Internet in this way was to find personal accounts from others who had experienced similar problems. This helped them to feel that they were not alone and gave them hope for recovery. Perceived benefits of the Internet as an information sources included convenience, privacy and anonymity. Perceived disadvantages related more to misuse than to questions of accuracy of information.
Rathod et al (2006)	4	United Kingdom	Undifferentiated mental disorders	Internet	Evaluated a web-based teaching program on old age psychiatry, designed for medical students. The program involved real people and, amongst other things, was designed to reduce the fear and stigma associated with dealing with elderly patients with mental disorders. Authors conducted semi-structured interviews with 32 students.	Students found the program enjoyable and commented on the usefulness of real cases.
Renzulli et al (2006)	1	United	Undifferentiated	Mixed media	Considered news coverage of mental	The ultimate sample included 438 articles.

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
		States	mental disorders		health resources in the two weeks after September 11, 2001. Identified a random sample of articles appearing in United States daily newspapers and on national, broadcast, and cable television outlets that made reference both to the attacks and to mental health.	Of these, 35% identified at least one risk factor for developing emotional problems after the attacks, 47% described at least one coping mechanism, 6% provided help information, and 22% cited expert sources.
Rowe et al (2003)	1	Australia	Depression	Newspapers	Searched for articles mentioning depression that appeared local and state Western Australian newspapers in 2000, and investigated the way in which the disorder was represented.	Forty nine articles were identified. Three key discourses were observed: 'the biomedical'; 'the psychosocial'; and the 'administrative managerial'. They argued that these discourses serve to normalise depression by presenting it as outside the control of those who experience it.
Saguy and Gruys (2010)	1	United States	Eating disorders	Newspapers	Drew a sample of newspaper articles on anorexia/bulimia and overweight/obesity from the <i>New York Times</i> and <i>Newsweek</i> for the period 1995 to 2005, and systematically selected a sub-sample to create a manageable corpus. The corpus contained 174 articles on obesity and 64 on eating disorders.	People with anorexia and bulimia were typically portrayed as young white females who were victims. By contrast, portrayals of overweight and obesity tended to link these conditions to poor eating habits and attribute blame to those experiencing them.
Schanie and Sundel (1978); Sundel and Schanie (1978)	4	United States	Undifferentiated mental disorders	Television; radio	Evaluated the Alternatives Project, a mass media campaign conducted in Louisville through which educational messages about mental disorders (and mental retardation) were aired on television and radio over a 60 week period (in three 20-week blocks). Evaluation drew on two data sources: (1) weekly tabulations of calls to the local crisis and information centre; and (2) responses to a structured telephone interview conducted with representative cross-sections of Louisville residents on four separate occasions (prior to	The campaign appeared to be successful in increasing utilisation of the crisis and information centre and in raising awareness.

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
					implementation and then after each of the three 20-week blocks).	
Shepherd and Seale	1	United Kingdom	Eating disorders	Newspapers	Examined messages about eating disorders presented in seven newspapers in the United Kingdom. Using the database Nexis, searched these newspapers from 13 October 2004 and 13 October 2005, in order to make direct comparisons with the United States findings of O'Hara and Clegg-Smith (2007). Then conducted a second search that covered the period 1992 to 2008, with a view to examining trends in portrayal over time. The second search excluded several tabloids that were not available through Nexis, so a third search was undertaken for the period 2001 to 2008 to facilitate comparisons between 'popular' (tabloid) and 'serious' (broadsheet) newspapers.	United Kingdom press coverage of eating disorders appeared to be more accurate than United States press coverage. Coverage tended to indicate that eating disorders were the domain of young, white females, particularly celebrities. This message remained constant over time, but medical opinions about etiology and treatment became more prominent in later years. Tabloids tended to provide more details on clinical complications; broadsheets focused more on research activities and public health issues.
Slopen et al(Slopen et al., 2007)	1	United States	Undifferentiated mental disorders	Newspapers	Examined a subset of the articles identified by Corrigan et al (2005) that had mental illness as their primary focus and focused explicitly on adults or children/adolescents. Conducted a content analysis of these articles, using a pre-defined codebook.	The study retrieved 1,252 articles. Child/adolescent articles were more likely to show evidence of responsible journalism whereas the adult articles were more likely to use stigmatising terminology and/or present themes of dangerousness and crime.
Stark et al (2004)	1	Scotland	Schizophrenia	Newspapers	Examined newspaper coverage of an incident in the Scottish Highlands in which a man with schizophrenia slashed a church minister's face with a knife, prompting a court case and an inquiry by the National Health Service. Searched local, regional and national Scottish newspapers for articles on the story, as well as the Scottish editions of three United Kingdom newspapers.	Most of the media coverage was associated with the assault and the court case, rather than the findings of the inquiry. Coverage largely dealt with service system failings, rather than proposed solutions. The authors posited that, in part, the National Health Service could have redressed this balance by providing additional comments prior to the announcement of the inquiry findings.

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
Stastny (1998)	1	United States	Undifferentiated mental disorders	Television	Conducted a descriptive study of the way in which people with mental illness were depicted in documentary films.	Demonstrated that early films were characterised by objectification and exploitation, but that more recent films involve personalised stories.
Steadman and Coccozza (1977)	3	United States	Undifferentiated mental disorders	Mixed media	Conducted a household-based survey in metropolitan Albany, New York which assessed attitudes towards 'mental patients' and 'criminally insane patients' and examined the sources of those attitudes..	In total, 413 people responded to the survey (a response rate of 92%). Twenty nine per cent of respondents indicated that they thought people feared 'mental patients' 'a lot' and 61% made the same judgement with respect to 'criminally insane patients'. Respondents viewed both 'mental patients' and 'criminally insane patients' as dangerous, but felt that the latter were more unpredictable. A significant minority (42%) of respondents were able to name someone who received media attention who was criminally insane, many of whom had committed violent or bizarre murders, bombings or kidnappings
Stuart (2003)	2003	Canada	Undifferentiated mental disorders; schizophrenia	Newspapers	Looked at media reporting of mental illness in general and schizophrenia in particular in a single Canadian newspaper before and after the introduction of an anti-stigma campaign known as <i>Open the Doors</i> . The media component of <i>Open the Doors</i> involved media professionals being invited to a series of local anti-stigma events and mental health experts acting as resources for them.	Overall, positive stories outnumbered negative ones in both the pre- and post-intervention period. Positive stories about both mental illness and schizophrenia each increased by 33% in the post-intervention period, but negative stories about mental illness increase by 25% and negative stories about schizophrenia increased by 46%.
Taylor (1957)	1	United States	Undifferentiated mental disorders	Mixed media	Examined a sample of media presentations of mental illness from 49 daily newspapers, 91 magazines, four AM radio stations, and one television station. All material was retrieved in 1954 and 1955. Three trained coders extracted thematic information	Several dominant frames were identified: (1) people with mental illness are 'abnormal' and look and behave in ways different from 'normal' people; (2) immediate environmental stresses can prompt episodes of mental illness; (3) mental illness is a very

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
					from the identified material.	serious matter; (4) physical and physiological factors frequently cause mental disorders; (e) poor coping skills learned during childhood put people at risk of mental instability under stress.
Thornton and Wahl (1996)	3, 4	United States	Undifferentiated mental disorders	Newspapers	Looked at the impact of a 'target' newspaper article on attitudes towards mental illness. The target article described a murder committed by a person with a mental illness and included various elements thought to promote stigma (e.g., depiction of the perpetrator as being unpredictable and dangerous). One hundred and twenty psychology students were randomly allocated to four equal groups: (1) the 'Stigma' group received the target article and an information article about mental illness; (2) the 'Prophylactic-Information' group received the target article and one that dispelled myths about mental illness (e.g., by including data on the rarity of acts of violence by people with mental illness); (3) the 'Prophylactic-Media' group received the target article and one which alerted readers to media distortions about mental illness (e.g., by presenting biased or misleading portrayals); (4) the 'Control' group received articles that were unrelated to mental illness and violence. After reading their allocated articles, participants completed the Community Attitudes towards Mental Illness (CAMI) questionnaire and a purpose-designed instrument known as the Fear and Danger Scales.	Compared with those in the other three groups, participants in the Stigma group were much more likely to agree that people with a mental illness should be restricted and were less accepting of people with a mental illness in the community. They also showed greater levels of fear towards people with a mental illness, and perceived them as being more dangerous.

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
Tolomiczenko et al (2001)	4	Canada	Undifferentiated mental disorders	Documentary film	Recruited 575 high school students and randomly allocated them to one of three conditions. The first group saw a documentary video about challenges faced and ultimately overcome by a homeless person with mental illness. The second group saw the documentary video and then took part in a discussion. The third group acted as a control and took part in a routine education session about mental illness. All three groups completed a questionnaire about their attitudes towards people with mental illness following their session.	After controlling for various socio-demographic and experiential factors, those who saw the video alone were less likely to demonstrate positive attitudes compared with the other groups whereas those who saw the video and then took part in discussion were more likely to do so.
Wahl (1996)	1	United States	Schizophrenia	Newspapers	Searched for articles about schizophrenia that were published in the <i>New York Times</i> , the <i>Los Angeles Times</i> and the <i>Chicago Tribune</i> from 1989 to 1994, and examined the nature of these articles.	In total, 101 articles were identified. Twenty five per cent concerned drug treatment and 19% reported on new scientific findings; often these issues were discussed in the context of controversies. Fourteen per cent of articles profiled people with schizophrenia in a positive way, but 10% reported on schizophrenia in the context of violence or crime. Many of the articles contained information about schizophrenia that was relatively accurate (e.g., regarding prevalence and typical symptoms). A small proportion (4%) perpetuated the myth that schizophrenia is characterised by split personality by using the term out of context or metaphorically to indicate inconsistency.
Wahl (2000)	1	United States	Obsessive compulsive disorder	Magazines	Looked at the way in which obsessive compulsive disorder was presented in articles in popular magazines that were indexed in the <i>Reader's Guide to Periodical Literature</i> and published in the period 1983	In total, 107 articles were identified. Only 31 of these explicitly dealt with obsessive compulsive disorder, and these generally presented accurate information about symptoms (e.g., ritualistic behaviours and

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
					to 1997.	uncontrollable impulses), etiology (e.g., biochemical, genetic and environmental causes) and treatment(e.g., medication and cognitive behavioural therapy). The remainder focused on incidents of criminal behaviour (e.g., stalking) labeled obsessive or compulsive.
Wahl and Harman (1989)	2	United States	Undifferentiated mental disorders	Mixed media	Surveyed 487 members of the National Alliance for the Mentally Ill who resided in 20 US states to seek their views on stigma.	Almost all respondents identified stigma as a major concern for their relatives with mental illness and for themselves as family members. They identified a number of sources of stigma, and indicated that news coverage of tragic events caused by people with mental illness was key among these.
Wahl and Lincoln-Kaye (1992)	1	United States	Undifferentiated mental disorders	Magazines	Looked at the frequency and nature of articles related to mental illness indexed in the <i>Readers' Guide to Periodical Literature</i> between 1965 and 1988.	The number of articles related to mental illness and treatment increased over time (128 in 1965, 213 in 1970, 287 in 1980 and 391 in 1988). Particularly notable was an increase in those describing specific disorders. The changes were consistent with changes in the mental health field over the period (e.g., the introduction of new diagnostic categories) and with appropriate changes in phraseology (e.g., the use of less stigmatising terminology).
Wahl et al (1995)	1	United States	Schizophrenia	Magazines	Examined magazine articles on schizophrenia indexed in the <i>Readers' Guide to Periodical Literature</i> in all even-numbered years between 1964 and 1992, rating them according to set criteria.	The average yearly number of articles was relatively small (9.1) and only a minority of these appeared in high-circulation magazines. Symptoms, causes and treatments were generally described in an accurate fashion. However, personal accounts of schizophrenia were limited, insufficient attention was devoted to community-based treatment options, and opportunities to dispel common myths about

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
						schizophrenia (e.g., that it involves multiple personalities) were generally missed.
Wahl et al (2002)	1	United States	Undifferentiated mental disorders		Searched six major United States newspapers for articles on mental illness published in 1999 and randomly selected 50 from each newspaper (i.e., 300 in total). Used three trained raters to examine these for themes and messages. At least two of the three raters had to agree for a rating to be regarded as legitimate.	Dangerous dominated as a theme, with 26% of all articles involving references to violence and crimes committed by people with mental illness. By contrast, there were very few articles that included positive accounts of recovery or accomplishments by people with mental illness.
Walker and Read (2002)	4	New Zealand	Schizophrenia	Documentary film	Recruited 126 undergraduate mathematics students and randomly allocated them to be exposed to one of three short videos. Each video involved footage of a young male with schizophrenia talking about his symptoms and a doctor describing the causes of the condition. The three videos differed in the type of causes emphasised – one focused on biological and genetic causes, one on environmental factors like childhood trauma, and one on a combination of the two. Attitude measures were administered before and after each video.	The video describing biological and genetic causes only was associated with a greater increase in negative attitudes relating to unpredictability and dangerousness. The video describing environmental causes was associated with a greater (though not statistically significant) increase in positive attitudes.
Ward (1997)	1	United Kingdom	Undifferentiated mental disorders	Newspapers	Looked at portrayal of mental health issues in selected newspapers in 1996, considering both the quantity and quality of coverage. Classified articles into the following broad subject areas: 'home and relationships'; 'stress'; 'funding/services'; 'politics'; 'business'; 'advice and guidance'; 'harm to others'; 'crime'; 'harm to self'; and 'miscellaneous'. Evaluated each article on a rating scale from +10 to -10, according to how positively it promoted four key	Almost half of the 1,035 newspaper articles identified were about 'harm to others', 'crime' or 'harm to self', and the majority of these scored negatively on the quality rating scale.

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
					messages about mental health: 'mental health problems are treatable'; people with mental health problems are not all criminals'; 'people with mental health problems lead worthwhile lives'; and 'people with mental health problems shouldn't be stigmatised'.	
Whitley and Hickling (2007)	1	Jamaica	Undifferentiated mental disorders	Newspapers	Explored representations of psychiatric deinstitutionalisation in Jamaica's major broadsheet, the <i>Daily Gleaner</i> , from 1 January 2003 to 1 March 2005. This followed an announcement by the Jamaican government in early 2003 that it was going to close a major inpatient institution known as Bellevue Hospital.	Twenty one articles were identified, all of which were positive in their orientation. These articles argued that the closure of the hospital and the corresponding expansion of community services would be good both for individuals with mental illness and Jamaican society. They acknowledged community concerns, but countered these with reference to evidence for the effectiveness of community care in the form of expert opinion and scientific data
Wilde et al (2011)	1	Australia	Undifferentiated mental disorders	Newspapers	Examined how stories about psychiatric genetics were portrayed in 14 Australian newspapers between 1996 and 2009, employing content and frame analysis to do so.	Four hundred and six articles were retrieved, over half of which appeared in the last five years of the search. Eighty seven per cent of the articles related to the etiology of mental disorders; common themes were the interaction between genetics and environment and the role of specific genes. Twenty one per cent of articles presented messages about the role of genes in the development of mental illness, and the majority of these messages suggested that this role was deterministic rather than probabilistic. Despite this, articles used frames of genetic optimism more frequently than ones of genetic pessimism, indicating that genetic discoveries could pave the way for future management options (e.g.,

Author(s) and date	Study question(s) ^a	Country	Mental disorder(s)	Media type(s)	Method	Key findings
						preventive interventions, pharmacogenetics, predictive genetic testing, gene therapy, improved treatments and technology, and personalised medicine. Often this genetic optimism occurred in the context of unrealistic temporal predictions about future genetic knowledge. One quarter of the articles included discourse about the ethical and social implications of genetic testing.
Williams and Taylor (1995)	1	United States	Undifferentiated mental disorders	Newspapers	Conducted a content analysis of articles on mental illness retrieved from major United States newspapers from February 1991 to January 1993.	Two key themes were apparent in the 83 retrieved articles: the closure of mental health hospitals; and images of people with mental illness as violent and unpredictable.

a. The following research questions were addressed by the studies:

- (1) How extensive is the presentation of mental illness in the news and information media, and what is the nature of this presentation?
- (2) How important is the news and information media in shaping knowledge, attitudes and behaviour regarding mental illness?
- (3) Does the news and information media have a negative impact on people's knowledge, attitudes and behaviours regarding mental illness?
- (4) Can the news and information media be harnessed to positively influence people's knowledge, attitudes and behaviours regarding mental illness?