Beliefs about dangerousness of people with mental health problems: the role of media reports and personal exposure to threat or harm

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Abstract

Purpose

To assess the associations between beliefs about the dangerousness of people with mental health problems and exposure to media reports of violence or personal experiences of fear, threat or harm.

Methods

Telephone interviews were carried out with 5220 Australians aged 18+. Respondents heard a vignette of a person with depression or early schizophrenia and were asked whether they believed him to be dangerous. Other questions covered past 12-month recall of media reports of violence and mental health problems, contact with and experiences of fear, threat or harm by people with mental health problems. Multinomial logistic regression was used to assess the associations between beliefs about dangerousness and media and these types of contact with people with mental health problems.

Results

For the early schizophrenia vignette, recall of media reports and having felt afraid of someone were associated with beliefs about dangerousness. For the depression vignette, media reports about violence and mental health problems or the experiences of feeling afraid or having been threatened or harmed were not strongly associated with beliefs about dangerousness. For both vignettes, knowing someone with a mental health problem and having a higher level of education were associated with less belief in dangerousness.

Conclusions

Media reports may play a greater role in forming attitudes in low prevalence disorders and further efforts to reduce any adverse impact of media reporting should focus on these disorders. The study also supports the effectiveness of contact with people with mental health problems in reducing beliefs about dangerousness.

Key words: mental illness stigma, violence, population survey

Introduction

Stigma has been defined as: “a mark of shame, disgrace or disapproval which results in an individual being rejected, discriminated against, and excluded from participating in a number of different areas of society” [1]. Often cited as an issue of concern for people with mental health problems, there is an extensive literature on stigma, its causes and the impact that it has on people with mental health problems [2,3]. While it is often referred to as a unitary construct, there is evidence that there are multiple dimensions of stigma, one of which is a belief in the dangerousness of a person with a mental health problem [4,5]. It appears that this belief has increased in Australia in recent years [6], although this is not a consistent finding in other countries. Surveys comparing beliefs in the US public in 1996 and 2006 on attitudes to vignettes portraying schizophrenia, major depression and alcohol dependence did not show changes [7,8].

Evidence suggests that most people with mental health problems are not violent and they are, in fact, more likely to be victims of violence than perpetrators, including victims of homicide [9,10]. Where associations between violence and schizophrenia, other psychoses and bipolar disorder are found, much of the relationship is due to associated substance misuse or lack of treatment [11-15].

Factors associated with beliefs about the dangerousness of people with mental health problems are likely to be varied and complex. Researchers have explored a number of these, including characteristics of people who hold the beliefs, characteristics of the person with mental health problems, exposure to mental health problems in oneself or others, exposure to violence by people with mental health problems, and media reporting of violent acts committed by people with mental health problems [4].

A relatively large number of studies have explored the associations between contact (which is most often through family and friends) with people with mental health problems and belief in dangerousness. Most have shown that contact is associated with less belief in dangerousness, although this may depend on the quality of the contact and there are many studies which do not

report associations [4]. There is also some evidence that negative experiences, such as being threatened or physically harmed, are associated with greater belief in dangerousness [16]. Some evidence suggests that personal experience of mental disorders has a weak association with less belief in dangerousness [17,18], but other studies report no association [19,20].

Media reporting of violent acts [21-23] has also been linked to greater beliefs in dangerousness. Studies have shown that newspaper reports are more likely to discuss people with mental health problems in the context of dangerousness or violence rather than treatment, recovery and advocacy action [24,25]. High-profile media reports of mental illness-related gun violence in the US may be particularly damaging [26,27].

However, there are no previous population studies that have attempted to specifically compare the impact of media exposure, personal experience of violence or threat, and beliefs about dangerousness of people with mental health problems. Therefore, the aim of the current study was to carry out a national survey on beliefs about dangerousness and the relationship with exposure to media reports of violence or personal experiences of fear, threat or harm.

Methods

The survey involved computer-assisted telephone interviews (CATI) with a national sample of 5220 members of the Australian general community aged 18 and over [28]. This survey sample was sufficient to give a standard error of +-0.007 for a prevalence rate of 50%, +-0.006 for a prevalence rate of 25% and +-0.004 for a prevalence rate of 10%. For a sub-sample of 1000, the respective standard errors were 0.02, 0.01 and 0.009. The survey was carried out by the survey company The Social Research Centre. A 'dual frame' approach was used, with the sample contacted by random-digit dialling of both landlines and mobile phones. This approach was taken in order to minimise the potential bias of collecting data solely from households with a landline telephone connection, as the latter approach may under-sample young people, particularly young men [29]. Interviews were

conducted between October and December 2014. The average interview length was 19.4 minutes. Ethics approval was obtained from the University of Melbourne Human Research Ethics Committee.

Survey interview

Initial questions covered sociodemographic information (age, gender, marital status, postcode, country of birth, language spoken at home, level of education and Aboriginal and Torres Strait Islander status). It also included questions about the respondent's own experience of mental health problems and whether they knew someone else with mental health problems (defined in the following way "By a 'mental health problem' we mean a period of weeks or more when you are feeling depressed, anxious, or emotionally stressed, and these problems are interfering with your life. Mental health problems could include, for example, depression, anxiety disorders, eating disorders, schizophrenia, bipolar disorder, or personality disorders", and see [28] for more detail). Respondents were randomly assigned to receive either a vignette describing a 30-year old male with depression or a 24-year old male with early schizophrenia. The vignettes, which have been previously published and widely used, describe a person who met ICD-10[30] and DSM-IV [31] criteria for major depression and schizophrenia [32].

Depression vignette

John is 30 years old. He has been feeling unusually sad and miserable for the last few weeks. Even though he is tired all the time, he has trouble sleeping nearly every night. John doesn't feel like eating and has lost weight. He can't keep his mind on his work and puts off making decisions. Even day-to-day tasks seem too much for him. This has come to the attention of his boss, who is concerned about John's lowered productivity.

Early schizophrenia vignette

John is 24 and lives at home with his parents. He has had a few temporary jobs since finishing school but is now unemployed. Over the last six months he has stopped seeing his friends and has begun locking himself in his bedroom and refusing to eat with the family or to have a bath. His parents also

hear him walking about his bedroom at night while they are in bed. Even though they know he is alone, they have heard him shouting and arguing as if someone else is there. When they try to encourage him to do more things, he whispers that he won't leave home because he is being spied upon by the neighbour. They realize he is not taking drugs because he never sees anyone or goes anywhere.

Respondents were then asked to indicate how strongly they agreed or disagreed with the following two statements: (1) John is dangerous; and (2) Most other people believe that John is dangerous. Response options were 'Strongly agree', 'Agree', 'Neither agree nor disagree', 'Disagree', or 'Strongly disagree'.

Subsequent questions covered exposure to media reports of violence and mental health problems and personal experience of fear or physical harm by a person with mental health problems. The media-related questions were as follows: 'Over the last 12 months have you heard or read in the media about someone being physically harmed by a person with a mental health problem?' and, if yes, 'Can you tell me what you remember about it?' and 'Did you see or hear this news story in… (1) The newspaper (2) A magazine (3) Radio (4) TV (5) The internet (5) Somewhere else. Multiple answers were accepted.

Personal exposure questions were as follows: 'Over the last 12 months, have you ever felt afraid of a person who you thought had a mental health problem?' and, if yes, 'Can you please tell me what made you feel afraid?'; 'Over the last 12 months have you been threatened or physically harmed by a person who you thought had a mental health problem?' and, if yes, 'Can you please tell me what happened?'; 'Does your job involve working with people who have mental health problems?', and, if yes, 'What type of job do you do?'.

Statistical analysis

The data were initially analysed using percent frequencies and 95% confidence intervals. A pre-weight was applied to adjust for the dual frame design and the respondent chance of selection. The achieved sample was close to the Australian national population in terms of geographic distribution, however, there was an under-representation of males and of younger adults, and an over-representation of university-educated individuals and people with an English-speaking background. These biases were adjusted for by 'raking' (also known as rim weighting or iterative proportional fitting) to account for known population proportions of gender, age, education level, region and telephone status.

Associations between media reports, personal experience of fear, personal experience of threat or harm, and beliefs in dangerousness were assessed with multinomial logistic regression. The dependent variables 'personal belief in dangerousness' and 'perceived belief in dangerousness' were each coded into 3 categories: 'Strongly agree', 'Agree' and 'Strongly disagree/Disagree/Neither agree nor disagree', with the last of these used as the reference category. Covariates were gender, age (coded into 3 groups: 18-29 years, 30-59 years, 60+ years), country of birth (other vs Australia), language spoken at home (other vs English), level of education (bachelor or above vs below bachelor) and knowing someone with a mental health problems (yes vs no). All analyses were performed using Intercooled Stata 13 (StataCorp LP, Texas, USA).

Results

Overall, 5220 interviews were completed, with 2589 on landlines and 2631 on mobiles. The standard response rate for the survey was 37.5%. 2641 people received the depression vignette and 2579 received the early schizophrenia vignette. Among those given the depression vignette, 13.3% (95% CI 11.8-15.0) agreed or strongly agreed that John is dangerous while 20.2% (95% CI 18.3-22.2) agreed that other people would perceive John as dangerous. Among those given the early

schizophrenia vignette, 28.3% (95% CI 26.2-30.5) agreed or strongly agreed that John is dangerous while 56.3% (95% CI 53.9-58.6) agreed that other people would perceive John as dangerous. Personal belief in dangerousness and perceived belief in dangerousness were weakly positively correlated ($r=0.38$, $p<0.001$) (supporting previous findings that these are separate constructs and that the scale items should not be combined [33]).

Just over 60% of respondents recalled media reports of someone being physically harmed by a person with a mental health problem in the previous 12 months, with TV being the most common source of such reports (recalled by 43.7% of respondents). 15% of people had felt afraid of a person in the last 12 months, 10% had been threatened or harmed and 13% of people reported working with people with mental health problems (see Table 1).

Personal beliefs about dangerousness

Factors associated with beliefs about dangerousness are presented in Table 2 for each vignette. For the depression and early schizophrenia vignettes, respondents with a higher level of education were less likely to agree or strongly agree with the statement that 'John' is dangerous (see Table 2). For both vignettes, those speaking a language other than English at home were more likely to strongly agree.

For the early schizophrenia vignette, recall of media reports of harm was associated with a greater likelihood of strongly agreeing that 'John' is dangerous. However, a post hoc analysis exploring the associations between types of media exposure (newspaper, magazine, radio, TV or the internet) and personal beliefs in dangerousness did not show any significant associations.

For the depression vignette, knowing someone with a mental health problem was associated with a lower likelihood of strongly agreeing and, for the early schizophrenia vignette, with a lower likelihood of agreeing with the statement. For the early schizophrenia vignette, having felt afraid of someone with a mental health problem was associated with a greater likelihood of agreeing that 'John' is dangerous.

Perceived beliefs about dangerousness

For the depression vignette, those speaking a language other than English at home were more likely to strongly agree that other people would consider 'John' dangerous and those with a higher level of education were less likely to agree. Those who knew someone with a mental health problem were less likely to agree and those who had been threatened or harmed were more likely to agree that other people would view 'John' as dangerous.

For the early schizophrenia vignette, those aged between 30 and 59 years and those aged 60 and over were less likely than those aged between 18 and 29 to agree that 'John' would be perceived as dangerous. Those with a higher level of education were less likely to agree with the statement that others would view 'John' as dangerous. People who knew someone with a mental health problem were more likely to agree that 'John' would be perceived as dangerous. Those who had felt afraid of someone and those who work with people with mental health problems were also more likely to strongly agree with the statement about perceived dangerousness.

Discussion

This paper reports results of the first national population-based survey to assess the associations between beliefs about the dangerousness of a person 'John' with mental health problems and media reports and the following types of contact: knowing someone, feeling afraid, being threatened or harmed and working with people with mental health problems. Experiences of being harmed or threatened, or feeling afraid of a person with a mental health problem, did not consistently predict a belief in dangerousness. A minority of respondents believed in the dangerousness of 'John', and consistent with previous research, this belief was more common for early schizophrenia than for depression [34]. It is possible that the description of John as 'shouting or arguing' in the early schizophrenia vignette is one factor contributing to the higher prevalence of beliefs about dangerousness.

Media exposure to stories about violence and mental health did not predict personal beliefs about dangerousness of people with mental health problems, other than for the association with strong agreement in the early schizophrenia vignette. Evidence for the impact of media reports on beliefs about dangerousness tends to come from studies assessing beliefs before and after violent events [35,22] or from experiments that expose people to media reports of violent crime associated with mental health problems and then assess beliefs about dangerousness [36,27]. These studies also tend to focus on more severe problems, particularly psychosis. It seems likely that when people are asked to think more broadly about mental health problems and dangerousness (as was done in the current study), their exposure to media reports is only one factor in forming their views and is outweighed by other factors, particularly knowing someone with a mental health problem. This is likely to be particularly true of a person with depression as, due to the higher prevalence rates, contact with a person with this mental health problem is much more common than contact with a person with schizophrenia. Thus, it is plausible that media influences would be greater in the latter case. This is supported by the results of a recent study which examined beliefs about dangerousness before and after the Germanwings plane crash (in which a pilot with depression deliberately flew the plane into a mountainside) [37]. The study showed that while beliefs in unpredictability increased, beliefs about dangerousness did not.

It is also possible that efforts to improve the portrayal of mental health problems in the media in Australia in recent years have mitigated the adverse impact on beliefs about dangerousness. Such efforts have been largely driven by initiatives aiming to improve media reporting of suicide [38,39]. A recent analysis of the portrayal of mental health in Australian daily newspapers showed that, while newspaper coverage of mental health favoured stories about illness over wellbeing, the issue was typically reported responsibly and positive mental health messages were common [40]. However, psychotic disorders were overrepresented in discussions of illness and were often discussed in relation to criminal behaviour. Moreover, stories which focused on unspecified ‘mental illness’ were also more likely to focus on such behaviour. There is evidence that the public associates the term

'mental illness' with schizophrenia rather than depression [41] and it is recommended that media guidelines should encourage the use of specific diagnostic labels and should not contribute to the use of the term 'mental illness' to lower prevalence disorders.

Findings in the current study are in line with those of a previous survey of young Australians aged between 12 and 25, which investigated recall of news stories about mental health problems and associations with stigma [42]. The results showed that recall of news stories about mental health problems was not generally associated with stigmatising attitudes.

The results of the current study are also similar to those that show that working with people with mental health problems is not likely to increase personal belief in dangerousness [43,44,20]. Those working in the area were more likely to strongly agree with the statement about perceived dangerousness, which is likely to reflect greater awareness of stigmatizing attitudes towards people with mental health problems. The current findings are also in line with those studies showing that knowing someone with mental health problems is linked to lower likelihood of believing in dangerousness [18,45,16,46,43,47]. Moreover, in the current study, correlation between knowing someone with a mental health problem and being threatened was weak ($p=0.15$, $p<0.001$). This provides further support for interventions that aim to increase contact with people with mental health problems as an anti-stigma strategy [48,49], although there is little evidence for longer term impacts [50]. However, further studies should explore whether the impact of contact on stigma varies according to mental health problem or level of contact [51].

In line with previous studies, including those conducted using the same vignettes in Australia, perceived belief in dangerousness was more common than personal belief, possible due to a phenomenon known as ' pluralistic ignorance ', where most people erroneously perceive that they have different attitudes to the majority [34]. While previous Australian studies [5] have shown lower stigmatising attitudes in females, the results of the current study reflect the results of a review of factors predicting belief in dangerousness which did not show any consistent association with age

and gender [4]. The lower levels of stigma in those with a higher level of education and those speaking English at home are also consistent with the wider literature [4].

Limitations of the study include potential recall bias and the relatively low response rate of 37% which, while in line with other similar Australian surveys, may limit the generalisability of the results [52].

Conclusions

Beliefs about the dangerousness of a person with depression were not strongly associated with media reports about violence and mental health problems, or the experiences of feeling afraid or having being threatened or harmed. However, some links were seen in the case of schizophrenia. It is likely that media reports play a greater role in forming attitudes in low prevalence disorders and further efforts to reduce any adverse impact of media reporting should focus on more severe disorders. The study also provides further support for the effectiveness of contact with people with mental health problems in reducing beliefs about dangerousness.

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Conflict of interest

On behalf of all authors, the corresponding author states that there is no conflict of interest.

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Tables

Table 1 Media or personal exposure to physical harm by people with mental health problems

	% (95% CI)
Recall media reports of someone being physically harmed	62.6 (61.0-64.3)
Type of media	
- Newspaper	23.9 (22.6-25.2)
- Magazine	3.1 (2.7-3.7)
- Radio	13.6 (12.6-14.7)
- TV	43.7 (42.1-45.3)
- The internet	13.1 (12.0-14.2)

- Other	1.6 (1.3-2.1)
Felt afraid of a person with mental health problems	15.0 (13.9-16.2)
Threatened or harmed by a person with mental health problems	10.1 (9.1-11.1)
Work with people with mental health problems	13.6 (12.6-14.7)

Table 2 Associations between exposure and belief in dangerousness

	Depression vignette		Early schizophrenia vignette	
	Agree vs disagree/neither (RRR (95% CI))	Strongly agree vs disagree/neither (RRR (95% CI))	Agree vs disagree/neither (RRR (95% CI))	Strongly agree vs disagree/neither (RRR (95% CI))
Gender				
Female vs male	0.57 (0.31-1.06)	0.77 (0.54-1.08)	0.68 (0.44-1.03)	0.86 (0.66-1.12)
Age				
30-59 vs 18-29	0.98 (0.43-2.23)	1.05 (0.65-1.71)	1.56 (0.78-3.09)	1.07 (0.74-1.55)
60+ vs 18-29	1.11 (0.47-2.58)	0.87 (0.51-1.47)	1.48 (0.7-3.15)	1.33 (0.9-1.96)
Country of birth				
Other vs Australia	1.33 (0.72-2.48)	0.99 (0.64-1.52)	1.23 (0.73-2.05)	1.09 (0.8-1.49)
Language spoken at home				

Other vs English	1.05 (0.50-2.22)	1.93 (1.18-3.16)**	1.31 (0.69-2.47)	1.48 (1.01-2.17)*
Level of education				
Bachelor or above vs Below bachelor	0.28 (0.13-0.61)**	0.59 (0.40-0.88)*	0.47 (0.29-0.75)**	0.64 (0.49-0.84)**
Knows someone with a mental health problem				
Yes	0.75 (0.41-1.38)	0.53 (0.36-0.76)**	0.55 (0.36-0.86)*	0.8 (0.6-1.05)
Recall media reports of harm				
Yes	0.62 (0.34-1.14)	0.94 (0.65-1.38)	1.43 (0.85-2.39)	1.38 (1.03-1.84)*
Felt afraid of someone				
Yes	0.63 (0.22-1.83)	0.98 (0.55-1.74)	2.02 (1.10-3.73)*	1.10 (0.73-1.65)
Threatened or harmed				
Yes	1.81 (0.60-5.43)	1.59 (0.83-3.06)	1.43 (0.72-2.84)	0.71 (0.41-1.24)

Work with people with mental health problems				
Yes	1.01 (0.51-2.0)	1.00 (0.65-1.54)	1.00 (0.59-1.67)	0.83 (0.61-1.14)

*p<0.05, **p<0.01

Table 3 Associations between exposure and perceived belief in dangerousness

	Depression vignette		Early schizophrenia vignette	
	Agree vs disagree/neither (RRR (95% CI))	Strongly agree vs disagree/neither (RRR (95% CI))	Agree vs disagree/neither (RRR (95% CI))	Strongly agree vs disagree/neither RRR ((95% CI))
Gender				
Female vs male	0.78 (0.58-1.05)	0.83 (0.42-1.64)	0.85 (0.67-1.06)	1.11 (0.76-1.61)
Age				
30-59 vs 18-29	0.92 (0.62-1.36)	2.14 (0.70-6.53)	0.60 (0.44-0.84)**	0.70 (0.42-1.16)
60+ vs 18-29	0.79 (0.51-1.22)	2.39 (0.82-7.01)	0.61 (0.42-0.87)**	0.58 (0.32-1.03)

Country of birth				
Other vs Australia	0.96 (0.69-1.34)	0.84 (0.41-1.73)	1.14 (0.87-1.49)	0.78 (0.46-1.31)
Language spoken at home				
Other vs English	1.75 (1.17-2.61)**	1.66 (0.72-3.85)	1.06 (0.75-1.5)	1.79 (0.99-3.24)
Level of education				
Bachelor or above vs Below bachelor	0.39 (0.28-0.54)***	0.56 (0.28-1.11)	0.84 (0.66-1.05)	0.61 (0.42-0.89)*
Knows someone with a mental health problem				
Yes	0.61 (0.45-0.83)**	0.87 (0.47-1.63)	1.38 (1.08-1.75)**	1.21 (0.81-1.81)
Recall media reports of harm				
Yes	0.80 (0.59-1.09)	0.51 (0.26-1.01)	1.12 (0.88-1.43)	1.17 (0.78-1.75)

Felt afraid of someone				
Yes	1.36 (0.91-2.02)	1.30 (0.45-3.71)	1.24 (0.87-1.78)	1.69 (1.01-2.83)*
Threatened or harmed				
Yes	1.79 (1.10-2.90)*	1.88 (0.56-6.32)	1.16 (0.76-1.80)	1.50 (0.82-2.76)
Work with people with mental health problems				
Yes	1.12 (0.78-1.60)	1.26 (0.57-2.74)	0.99 (0.76-1.29)	1.59 (1.06-2.38)*

*p<0.05, **p<0.01

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