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Validation of a short instrument to measure stigmatised attitudes towards mental illness

AIMS AND METHOD

One of the steps to change stigmatised attitudes involves identifying the concerns of people whose attitude is to be changed. This paper presents the Attitudes to Mental Illness Questionnaire (AMIQ), a short instrument aimed at systematically obtaining this information, and examines the feasibility, test–retest reliability as well as face and construct validity of the AMIQ on the UK general public. A postal survey of a random sample of 1079 adults was conducted. A self-reported questionnaire with 5-point Likert scale responses was validated in response to short fictional vignettes. A second subsample of 256 was used for a reliability test.

RESULTS

The AMIQ is a short instrument with good psychometric properties. It shows good stability, test–retest reliability, alternative test reliability, face, construct and criterion validity. The self-selecting sample of 1079 UK adults showed highly stigmatised attitudes to people with addictive disorders but more positive attitudes to those with depression or self-harm. Results from a smaller follow-up sample showed that attitudes towards people with alcohol dependence and schizophrenia were intermediate.

CLINICAL IMPLICATIONS

The AMIQ can be used in various medical and mental health stigma research and intervention settings.

Stigma is a social construction that devalues people as a result of a distinguishing characteristic or mark (Biernat & Dovidio, 2000). Many studies have shown that negative attitudes towards people with mental illness are widespread (Crisp *et al*, 2000). Discrimination seems to exist in every area of life, particularly for those with psychosis and drug dependence; moreover the shame and secrecy associated with a mental illness may also delay seeking treatment (Byrne, 2000). Docherty (1997) identifies stigma as a major barrier to the management of depression. This view is echoed by the influential *Safer Services* report (Appleby, 1999) in which stigma is seen as a major barrier to treatment-seeking and suicide prevention.

Action on Mental Health was published in 2004 by the UK Office of the Deputy Prime Minister. This publication provides 12 individual fact sheets designed to encourage best practice to reduce the stigma and social exclusion experienced by people with mental illness. This report supplements the efforts of the Royal College of Psychiatrists' 5-year Changing Minds campaign whose aim was to promote positive images of mental illness, challenge misrepresentations and discrimination, encourage patient advocacy and educate the public about the real nature and treatability of mental disorder (Crisp *et al*, 2000). Both campaigns give practical advice to health agencies, employers and a variety of stakeholders as to how to tackle stigma. However, there are currently no practical means of assessing the effectiveness of these measures other than direct interviews with target populations.

Practical steps to change stigmatised attitudes have been suggested. Knox *et al* (2003) showed that training members of the US airforce in the recognition and treatment of mental illness significantly reduced the suicide rate (Knox *et al*, 2003). A central component of this programme was addressing the stigmatised attitudes to mental illness. One stage of such a process involves identifying the concerns of people whose attitude is to be changed. The objective of the current study was to validate a short questionnaire that might then be used to assess the attitude of members of the general public towards people with mental illness. This questionnaire could also be used to target and measure the effectiveness of anti-stigma methods.

Method

The Attitudes to Mental Illness Questionnaire (AMIQ) was adapted from Cunningham *et al* (1993). Pilot work was carried out by telephone with a series of general open-ended questions (n=20 interviewees). The final questionnaire was submitted to adults selected at random throughout the UK using advertisements in regional newspapers and by randomly selecting addresses on streets using the wildcard function of the British Telecom online directory. Four local newspaper syndicates involving several different publications were used from the north and north-west of England, south-east England and central Scotland with a potential readership estimated at 2 million people. Unfortunately, the sample was necessarily self-selecting.

In the first part of the study, respondents were asked to read a short vignette describing one of five imaginary individuals and then answer five questions (see Appendix). Three of the vignettes were chosen deliberately to produce a strongly negative or positive response to test the face validity of the questionnaire (see Discussion). Vignettes were presented in random order on the questionnaire. The individual questions were scored on a 5-point Likert scale (maximum +2, minimum −2) with blank questions, 'neutral' and 'don't know' being scored 0. The score for the five questions was added giving a total score for each vignette between −10 and +10. The

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vignettes are given in Table 1. A smaller follow-up study took place several months later and included questions on an imaginary person with schizophrenia and a person with alcohol dependency and included questions from Corrigan's attributions questionnaire (Corrigan *et al*, 2003). Non-parametric (Mann–Whitney and Wilcoxon) tests were used to compare differences in subgroups.

Results

In total 1079 completed questionnaires were received. A further 37 questionnaires were received with more than half the responses being incomplete and these were disregarded. The mean age of respondents was 46.3 years (s.d.=15.7) with 55% of the participants in paid employment, 17% retired and 36% men. Factor analysis using principal component analysis with varimax rotation showed that one component accounted for 80.2% of the variance that involved significant contributions from all five questions – this factor might best be described as 'stigmatisation'. Although three questions (1, 4 and 5) were based on other people's expectations of a patient's future and the other two questions assessed social distance, these factors could not be identified separately on factor analysis. The results indicate excellent construct validity. Follow-up questionnaires were sent to a sample of respondents after 2–4 weeks. Pearson's correlation coefficient was 0.702 (n=256), indicating reasonable test–retest validity. The AMIQ was also compared with a 21-item attributions questionnaire that has been validated as a measure of stigmatised attitudes towards people with mental illness (Corrigan *et al*, 2003). Fifty participants received the AMIQ and attributions questionnaire and were asked to complete both in relation to the schizophrenia vignette. The attribution questionnaire was scored from 0 to a maximum of 64 with a mean score of 38.7 (s.e.=1.8). Kendall's tau b=0.563 ($P<0.001$) and Spearman's rank correlation rho=0.704 ($P<0.001$) indicated good alternative test reliability.

Discussion

The 5-item AMIQ is a brief, self-completion questionnaire with good psychometric properties that can be used in most situations. Content validity and reliability is high, as indicated by Cronbach's alpha score, factor analysis and test–retest correlation coefficients. Vignettes describing highly stigmatised individuals (such as a convicted criminal) produce consistently negative scores and those describing non-stigmatised individuals (a Christian and a diabetic) produce positive scores. This indicates good face validity. The correlation between the AMIQ and Corrigan's attributions questionnaire was also good, indicating reasonable alternative test reliability. The results confirmed the widely reported observation that many people with mental illness (especially those with opiate addiction) are subjected to very negative and stigmatised views (Erickson & Goodstadt, 1993; Byrne, 2000; Luty & Grewal, 2002). However, a hypothetical patient with depression and self-harm was viewed more sympathetically than people who suffer from addictive disorders and schizophrenia.

The results were unusual among surveys of public attitude, as there was no significant difference in results between subgroups determined by gender, age (analysed using subgroups based on 10-year age intervals) or awareness of the Royal College of Psychiatrists' anti-stigma Changing Minds campaign. The results were not affected by the media publicity concerning the detention of the boxer, Frank Bruno, on 23 September 2003 (at which point approximately 70 completed questionnaires had already been received).

Ritsher *et al* (2003) have validated a 29-item self-completion instrument (the Internalized Stigma of Mental Illness scale) that can be used to determine the degree of stigma experienced by people with mental illness. However, it was not designed to determine the attitude of members of the general population towards people with mental illness. The Community Attitudes Towards Mental Illness scale is widely used to assess attitudes towards various aspects of mental illness although, once again, this instrument is interviewer-rated (Taylor *et al*,

Table 1. Overall scores using the Attitudes to Mental Illness Questionnaire (AMIQ) in 879 randomly selected members of the UK public

Vignette	Mean score (s.e.)
John has been injecting heroin daily for 1 year.	−5.38 (0.53)
Tim is depressed and took a paracetamol overdose last month to try and hurt himself.	2.35 (0.10)
Steve has been drinking heavily for 5 years. He is now going for treatment and has started attending Alcoholics Anonymous meetings.	−1.03 (0.34)[1]
Robert is a convicted criminal. He has spent time in prison for several convictions for theft and shoplifting and is currently on bail for fraud and burglary.	−5.90 (0.11)
Peter has diabetes. He needs to inject insulin every day and has a special diet.	5.62 (0.12)
Michael has schizophrenia. He needs an injection of medication every 2 weeks. He was detained in hospital for several weeks 2 years ago because he was hearing voices from the Devil and thought that he had the power to cause earthquakes. He has been detained under the Mental Health Act 1983 in the past.	−1.86 (0.27)[2]
Steve is a practising Christian. He attends church every Sunday and attempts to lead a Christian life.	5.86 (0.09)

1. n=287.
2. n=158

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1979). Other instruments have been used to measure stigmatised attitudes within the general population, although few have been fully validated. Pinfold *et al* (2003) reported the use of a questionnaire including four factual and five attitudinal statements, which can be scored using a Likert response, in 472 secondary school children. Students attended two 1-h mental health awareness workshops. Overall, there was a small but positive shift in students' understanding of mental illness. Unfortunately, the questionnaire used in this study referred only to 'people with mental illness'. This could not be used to compare attitudes towards those with mental illness with attitudes towards other groups such as people without mental illness. Crisp *et al* (2000) reported a survey of 1737 adults throughout the UK. Although attitudes were scored using a 5-point Likert scale, this report used interview questionnaires that are too costly and cumbersome for routine use. Some researchers have used questionnaires with a 'most people would say. . .' approach (Link *et al*, 1989). We chose to develop a short questionnaire to assess what an individual themself believes. However, it is possible that many respondents are likely to give their estimate of general public opinion rather than their own view, particularly in response to issues to which they may be ambivalent.

Some limitations should be acknowledged. Unfortunately, it was not possible to distinguish between respondents recruited by newspaper advertisements and those recruited directly from the postal survey. The large circulation of the newspapers also precludes any estimate of the overall response rate. Clearly, only a small proportion of the residents from households who subscribe to a particular newspaper or who received mailshots were likely to respond to the survey and it is thus self-selecting. However, the age and employment status of the participants were reasonably matched to those from census surveys, although there was an excess of women respondents. Subgroup analysis showed no significant difference in response according to gender. These results suggest that the sample provides an acceptable view of the attitudes of British adults as far as can be reasonably expected in surveys of this nature. In the ideal situation, interviews would be conducted using a quota-survey of households, with repeat visits for non-responders (Crisp *et al*, 2000). Unfortunately, this procedure is prohibitively expensive. An alternative is to use organisations of professional interviewers, such as the Market and Opinion Research Institute (MORI) or Gallup, who canvass members of the general public. However, these samples are also self-selecting as interviewers tend to approach passers-by at preferred public places (Oppenheim, 1992). As a further example, a recent MORI poll of the 'trustworthy professions' was commissioned by the British Medical Association and reported results from 'a representative quota sample' of 2017 UK adults (http://www.mori.com/polls/2005/bma.shtml). Although canvassers were given lists of addresses to approach at sites likely to be representative of the community as a whole, canvassers were only expected to obtain interviews from a minority of households within each area. The majority of people approached at the selected households declined or were unavailable.

The AMIQ was validated against in-depth unstructured pilot interviews by the authors and the original questionnaire described by Cunningham *et al* (1993). However, the limited resources meant that it was not practical to validate the questionnaire against a large number of face-to-face interviews. There is an extensive body of work on stigma in social psychology. However, there remains no agreed gold standard interview against which to validate a stigma questionnaire. The Opinions About Mental Illness questionnaire is a widely used self-completion instrument used to measure stigmatised attitudes towards mental illness (Struening & Cohen, 1963). The 51-item scale was developed by factor analysis and measures attitudes towards the causes and treatment of mental illness rather than attitudes towards people with mental illness (Link *et al*, 2004). Hence the AMIQ was validated against Corrigan's attributions questionnaire that has been specifically validated to assess people's attitudes towards patients with mental illness. It is hoped that the AMIQ will be useful to other workers to assess stigmatised attitudes in target populations or in other representative surveys.

Appendix

Attitudes to Mental Illness Questionnaire (AMIQ)

Please read the following statement: John has been injecting heroin daily for 1 year. Please underline the answer which best reflects your views:

1. Do you think that this would damage John's career?
   Strongly agree^{-2}/Agree^{-1}/Neutral^{0}/Disagree^{+1}/Strongly disagree^{+2}/Don't know^{0}
2. I would be comfortable if John was my colleague at work?
   Strongly agree^{+2}/Agree^{+1}/Neutral^{0}/Disagree^{-1}/Strongly disagree^{-2}/Don't know^{0}
3. I would be comfortable about inviting John to a dinner party?
   Strongly agree^{+2}/Agree^{+1}/Neutral^{0}/Disagree^{-1}/Strongly disagree^{-2}/Don't know^{0}
4. How likely do you think it would be for John's wife to leave him?
   Very likely^{-2}/Quite likely^{-1}/Neutral^{0}/Unlikely^{+1}/Very unlikely^{+2}/Don't know^{0}
5. How likely do you think it would be for John to get in trouble with the law?
   Very likely^{-2}/Quite likely^{-1}/Neutral^{0}/Unlikely^{+1}/Very unlikely^{+2}/Don't know^{0}

Declaration of interest

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A survey of liaison psychiatry services in general hospitals and accident and emergency departments: do we have the balance right?

AIMS AND METHOD

By use of a telephone survey, we aimed to investigate liaison psychiatry services of all 29 general hospitals in Greater London. We specifically enquired about services to accident and emergency (A&E) departments.

RESULTS

We identified wide variations in staffing, working hours and patient groups seen. Fourteen services (48%) worked over 24 h and 4 (14%) had specific A&E teams. Twelve services (41%) had established or planned working links with community crisis services.

CLINICAL IMPLICATIONS

Generally staff numbers fell below national recommendations and there were frequent gaps in service provision. The recent focus on emergency care has lead to an increase in A&E services, but there is a risk that liaison psychiatry services for other general hospital patients are being neglected.

Although the number of liaison psychiatry services in the UK is increasing, their development is idiosyncratic and services often fail to meet the recommendations of the Royal Colleges of Physicians & Psychiatrists (2003). Across the UK there is a wide variation in staffing and service delivery (Howe *et al*, 2003; Ruddy & House, 2003; Swift & Guthrie, 2003).

Recent English health service initiatives have led to an increased focus on emergency mental healthcare, which potentially influences liaison psychiatry provision to accident and emergency (A&E) departments. The Department of Health (2001) has recently set standards to reduce patients' attendance times in A&E departments. In addition, the National Service Framework for Mental Health (Department of Health, 1999) has required specific services to be established for patients in crisis, many of who will attend A&E departments. However, there is no optimum model of psychiatric service delivery to A&E. Also, there is a risk that A&E mental health services develop at the expense of other hospital departments.

As a city, London is unique in the UK in terms of its size, ethnic diversity and organisation of health services. As part of the establishment of a network of liaison psychiatry services in Greater London, we surveyed the current service provision to all the district general hospitals. We aimed to investigate the staffing and service provision of each service and to enquire about service developments, particularly with regard to A&E departments.

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