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ORIGINAL PAPER

Christoph Lauber · Carlos Nordt · Luis Falcato · Wulf Rössler

Do people recognise mental illness?

Factors influencing mental health literacy

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Abstract *Background* Mental health literacy has been defined as the public's knowledge and the beliefs about mental disorders enhancing the ability to recognise specific disorders. *Aims* Firstly, to determine whether the public recognises a person depicted in a vignette as mentally ill or as experiencing a crisis. Secondly, to reveal the factors influencing the correct recognition. *Methods* Multiple logistic regression analysis of an opinion survey conducted in a representative population sample in Switzerland (n = 844). *Results* The depression vignette was correctly recognised by 39.8 % whereas 60.2 % of the respondents considered the person depicted as having a 'crisis.' The schizophrenia vignette was correctly identified by 73.6 % of the interviewees. A positive attitude to psychopharmacology positively influenced the recognition of the two vignettes whereas a positive attitude to community psychiatry had the inverse effect. Moreover, for the depression vignette previous contact to mentally ill people had a positive influence on the recognition. For the schizophrenia vignette instead, rigidity and interest in mass media had a negative influence, respectively. *Conclusions* The low knowledge about mental disorders, particularly depression, confirms the importance and the need to increase mental health literacy. Furthermore, professionals must openly discuss illness models with their patients, especially emphasising the differences between illness and crisis.

Key words mental health literacy · public opinion survey · illness model · crisis · schizophrenia · depression · recognition · stigma

C. Lauber (✉) · C. Nordt · L. Falcato · W. Rössler
Psychiatric University Hospital
Militärstrasse 8
PO Box 1930
8021 Zurich, Switzerland
Tel.: +41-1/296-7300
Fax: +41-1/296-7309
E-Mail: christoph.lauber@puk.zh.ch

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Introduction

'Mental health literacy' is defined as the ability to gain access to, understand, and use information in ways which promote and maintain good mental health. It refers to knowledge and beliefs about mental disorders which aid their recognition, management or prevention including the ability to recognise specific disorders; knowing how to seek mental health information; knowledge of risk factors and causes, of self-treatments, and of professional help available; and attitudes that promote recognition and appropriate help-seeking [9]. Being one aspect of mental health literacy *recognition* of mental illness is additionally important as the individual help-seeking behaviour, but also recommendations to the social network are depending on whether or not an illness is identified [21, 22]. Recognition influences a person's attitude and behaviour towards mentally ill people [3] and is, thus, crucial in the context of anti-stigma campaigns.

Although the lifetime risk for any psychiatric disorder is at approximately 50 % [13], few studies investigated the recognition of mental illnesses among the general population. Jorm et al. [10] reported a recognition rate of 72 % for the depression vignette and of 84 % for the schizophrenia vignette. In Germany, only 33 % of the respondents in a population survey could name causes of schizophrenia [5, 6]. Moreover, little is known about factors influencing mental health literacy. Therefore, we conducted in Switzerland a representative population survey on public attitudes towards mental illness and psychiatric treatment. Based on a vignette depicting either a person with schizophrenia or depression we asked the interviewees to indicate whether the person described suffered from an 'illness' or was experiencing a 'crisis.' We approached the following questions:

- To what extent are the persons depicted in the two vignettes recognised as having an illness?
- What are factors influencing the correct recognition?

Methods

Study sample

We drew a representative sample of the residential Swiss population aged 16 to 76 years living in private households with telephone mainlines (n = 1737). People above age 76 years were excluded from participation because they often have problems understanding the interview [10]. Out of all Swiss phone numbers, a random sample of households was drawn. A target person in each household was randomly selected using the Kish-method which allows to randomly select the household member to be interviewed according to 8 selection tables based on age, sex, and number of residents in the household [14]. The Kish-method minimises non-coverage within sampling units. However, it may increase non-response [20]. The response rate was 63 % which is comparable to other surveys [e. g., 10]. Throughout the sampling, a total of 1037 persons refused the interview. Main reasons for refusal were 'no interest' (39 %), 'disapprove of opinion polls' (20 %), and 'no time' (15 %). Of the refusals, 76 % occurred before the contacted person received any information about the subject of the interview. Further details of the study, e. g. sample characteristics, are provided elsewhere [15–19].

Interview

The public attitudes were assessed using computer-assisted telephone interviewing (CATI) in co-operation with an institute for survey research. CATI should particularly reduce potential measurement errors associated with questionnaire item wording and ordering, interviewers' verbal behaviour, and data processing [20]. All interviewers were thoroughly trained and supervised during the survey. If the target person in a contacted household consented to participate, an interview date was arranged. Contacting and date of interview were spaced at least one week apart to deliver in the meantime written material containing visual aids in order to facilitate the interview and increase data quality.

Instruments proven in international research were included in the questionnaire. Firstly, general attitudes towards mental illness and psychiatric institutions were assessed, e. g. attitude towards psychopharmacology (Cronbach's α-coefficient of reliability: 0.67) and community psychiatry (Cronbach's α: 0.75) [15–19]. Secondly, a vignette depicting either a person with major depression or schizophrenia fulfilling the respective DSM-III-R criteria was presented. Half of the interviewees (n = 893) were given the vignette along with the respective psychiatric diagnosis. The remaining 844 interviewees were *not informed of the diagnosis* but were asked to indicate whether the person described *either was suffering from a 'mental illness' or experiencing a 'crisis.'* Data of the 844 interviewees were used in further analyses as only this subsample could report their opinion on whether the person in the vignette had a 'crisis' or an 'illness,' respectively. Finally, different variables including demographic factors (such as age, gender, and education) were assessed: interest in mass media (Cronbach's α: 0.74), rigidity (Cronbach's α: 0.62), and contact to mentally ill people (Cronbach's α: 0.49).

Statistical analysis

The data were analysed using the computer package SPSS Version 10. Scales and indices were tested for reliability. In order to estimate the effect of different factors on correct recognition of the vignettes, we carried out a multiple logistic regression analysis including demographic and psychological variables assessed in the questionnaire. The interpretation of the odds ratios (OR) was simplified by dichotomising the scales by the median.

Results

The depression vignette (N = 309) was correctly recognised by 39.8 % whereas 60.2 % of the respondents considered the person depicted as having a 'crisis' (Table 1). The schizophrenia vignette (N = 326) was correctly identified by nearly three quarters of the interviewees.

Table 2 demonstrates the results of a multiple logistic regression analysis for the correct recognition of the *depression* vignette (0 signifies 'illness' and 1 'crisis'; R^2(Nagelkerke) = 0.096). Previous contact to mentally ill people (OR = 0.52, 95 % confidential interval (CI) = 0.31–0.87; $p < 0.05$) and a positive attitude to psychopharmacology (OR = 0.54, 95 % CI = 0.33–0.88; $p < 0.05$) are predictors for a correct recognition of the vignette, i. e. as an illness. A positive attitude to community psychiatry (OR = 1.78, 95 % CI = 1.06–2.98; $p < 0.05$) instead is a predictor for characterising the person in the vignette as having a crisis.

Table 3 presents the results of a multiple logistic re-

Table 1 Recognition of the vignette depicting a person with either depression or schizophrenia

Vignette	Answer	N	Percent (%)
Depression (N = 309)	Illness	123	39.8
	Crisis	186	60.2
Schizophrenia (N = 326)	Illness	240	73.6
	Crisis	86	26.4

Table 2 Results of multiple logistic regression analysis presented as odds ratios (OR) and 95 % CI, for the correct recognition of the depression vignette (N = 309)

	OR[1]	95 % CI
Contact to mentally ill people (high)	0.52*	0.31–0.87
Positive attitude to psychopharmacology	0.54*	0.33–0.88
Positive attitude to community psychiatry	1.78*	1.06–2.98

Included in the regression analysis, but not significant were age, gender, education, rigidity, and interest in psychiatric topics in the mass media
[1] 0 signifies 'illness' and 1 'crisis,' respectively
* $p \leq 0.05$
R^2 (Nagelkerke) = 0.096

Table 3 Results of multiple logistic regression analysis presented as odds ratios (OR) and 95 % CI, for the correct recognition of the schizophrenia vignette (N = 326)

	OR[1]	95 % CI
Positive attitude to psychopharmacology	0.55*	0.32–0.93
Rigidity (high)	2.07**	1.19–3.63
Positive attitude to community psychiatry	2.02**	1.19–3.43
Mass media	1.85*	1.07–3.22

Included in the regression analysis, but not significant were age, gender, education, and contact to mentally ill people
[1] 0 signifies 'illness' and 1 'crisis,' respectively
* $p \leq 0.05$; ** $p \leq 0.01$
R^2 (Nagelkerke) = 0.126

gression analysis for the correct recognition of the *schizophrenia* vignette (R^2(Nagelkerke) = 0.126). A positive attitude to psychopharmacology (OR = 0.55, 95 % CI = 0.32–0.93; $p < 0.05$) is a predictor for a correct recognition. Rigidity (OR = 2.07, 95 % CI = 1.19–3.63; $p < 0.01$), a positive attitude to community psychiatry (OR = 2.02, 95 % CI = 1.19–3.43; $p < 0.01$), and interest in topics considering mental illness in mass media (OR = 1.85, 95 % CI = 1.07–3.22; $p < 0.05$) are predictive for identifying the schizophrenia vignette as a crisis.

Discussion

To summarise, schizophrenia was more often recognised (73.6 %) as a mental illness than depression (39.8 %). A positive attitude to community psychiatry negatively influenced the recognition of both vignettes whereas a positive attitude to psychopharmacology had the inverse effect. Moreover, for the depression vignette previous contact to mentally ill people had a positive influence on the recognition. Rigidity and interest in psychiatric topics in mass media negatively influence the recognition of the schizophrenia vignette.

The recognition of the vignettes

Compared to the data presented by Jorm et al. [10] our sample had a significantly lower recognition rate. Thus, the mental health literacy in Switzerland is low. This is partly explained by the different study methods, e. g. the Australian authors asked whether the respondents thought that 'anything could be wrong' with the person described. We instead asked the interviewees to choose between 'illness' and 'crisis,' hence, already indicating that 'something is wrong.' Nevertheless, in Switzerland especially depression is hardly recognised as a mental illness among the general population. This corresponds to the belief that depressive states do not refer to illnesses but rather to normal psychological states commonly called life crises [16]. This idea is supported by our finding that more contact to mentally ill people is increasing the recognition of depression, i. e. only those who had already contact to people affected are actually able to correctly recognise the illness. For those affected, crucial consequences of this unawareness are, e. g. that medical treatment for depression is not regarded as being necessary by the public while non-medical interventions are thought to be helpful [16].

From both attitudinal and epidemiological research we know demographic variables to be crucial [2, 7, 12, 13, 23, 24]. In this analysis instead we found none of them to play an important role, which is somewhat unexpected.

The influence of different psychological and sociological variables on recognition

Recognition of the vignettes is linked to a *positive attitude to psychopharmacology*. This seems to represent people with a high level of mental health literacy. Thus, this result is not surprising. More striking is the finding that a *positive attitude to community psychiatry* is negatively correlated with the recognition of a mental disorder. This would suggest that people who are ready to accept individuals with mental illnesses in community do not thoroughly realise these people's difficulties and problems.

Different studies reported that *mass media* negatively influence attitudes towards psychiatry by drawing frightful pictures of people with mental illness and of psychiatric treatment methods, e. g. medication [e. g. 8]. Our results are opposite as those with interest in psychiatric topics in the media are rather minimising than demonising the state of the person depicted in the vignette.

These findings, however, represent how today's psychiatry is seen by the public: either as a medical subspecialty based on a biological understanding or as a more psychosocially oriented branch. Those who prefer the latter have a crisis rather than an illness model of psychiatric disorders, are interested in psychiatric topics in the media, and favour community psychiatry, but are against psychopharmacotherapy. Those biologically focused have a medical illness model and, thus, support psychotropics.

Rigidity is a predictor for regarding the person with schizophrenia as being in a life crisis. Rigid personalities are, among others, characterised by a preoccupation with orderliness, perfectionism, and mental and interpersonal control, at the expense of flexibility, openness, and efficiency [1]. Thus, those people are viewing psychiatric disorders with distance and scepticism believing that altered psychic states are rather a question of willpower and self-control than of illness [17]. As a result, for people in crises simplistic proposals such as getting through on one's own effort would be appropriate.

Limitations of this survey

This survey has different limitations some of which must be acknowledged: Firstly, this study underlines the problems that research on public attitude in general deals with, e. g. the tendency to include more communicative and cooperative respondents, or answering according to social desirability. Thus, we chose telephone interviews that are considered superior to face-to-face interviews regarding issues of confidentiality and social desirability [4]. Secondly, we only studied recognition of vignettes that depicted depression and schizophrenia. Our results, hence, are solely valid for these two disorders. Their relevance to other mental disorders or even to medical problems in general is restricted although

shared belief systems might be existing when evaluating the different illness models [10, 11]. Thirdly, out of 844 participants only 635 could be included in further analyses. This is due to the statistical analysis used which requires complete datasets. Finally, we ask for the people's assessment, but not for the reason their opinion is based on. Thus, this paper can not more than discuss possible reasons for the answers, but it can not reveal the motives behind them.

Conclusions

Both the high prevalence of and the low knowledge about mental disorders confirm the importance and the need to increase mental health literacy. Particularly depression is rarely recognised as a mental illness. However, contact to mentally ill people is increasing recognition. Therefore, in a campaign defeating mental health stigma the affected must be included. Moreover, as illness models have considerable influences on, e. g., treatment proposals, thus, professionals must openly discuss them with their patients. The differences between illness and crisis must be especially emphasised.

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