Continuum beliefs and stigmatizing attitudes towards persons with schizophrenia, depression and alcohol dependence

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ABSTRACT

Separation is a central step in the process of stigmatizing persons with mental disorders. We examine whether belief in a continuum of symptoms from mental health to mental illness is associated with less stigmatizing attitudes. In a representative population survey in Germany ($n=3642$), using case-vignettes of persons suffering from schizophrenia, depression or alcohol dependence, we measured belief in a continuity of symptoms, emotional reactions and desire for social distance related to the person described in the vignette. While 42% of respondents agreed in symptom continuity for depression, this percentage was 26% for schizophrenia and 27% for alcohol dependence. Continuum beliefs were associated in general with more positive emotional reactions and less desire for social distance. This relationship was strongest for schizophrenia, followed by alcohol dependence. Continuum beliefs thus seem to be associated with less stigmatizing attitudes, particularly regarding schizophrenia and alcohol dependence. Educational information on the continuous nature of most psychopathological phenomena could usefully be integrated in anti-stigma messages.

1. Introduction

The stigma of mental illness has been conceptualized as a process of several distinct, but interrelated steps (Link and Phelan, 2001). Central to this process is a separation between "us" and "them", leading to negative emotional reactions and resulting in discrimination and devaluation of the person. While the hypothetical first steps of the stigma process, labelling and stereotyping, and their relation to discrimination and devaluation have been examined in much detail (for example, Link et al., 1987; Link et al., 1989; Angermeyer and Matschinger, 1997; Corrigan, 1998; Martin et al., 2000; Angermeyer and Matschinger, 2005), there is a surprising lack of studies focusing on perceived differentness and separation. This is deplorable, since theoretically, perceived differentness is a promising target for anti-stigma messages. An attitude opposed to it would be the perception that a person with mental illness is someone like us, and that to a certain degree his/her experiences resemble experiences of myself. This attitude is supported by epidemiological studies on the prevalence of psychiatric symptoms among the general population. For example, population studies provide evidence for a continuum of psychotic symptoms experience (Johns and van Os, 2001; Van Os et al., 2010), experience of depressive symptoms (Hankin et al., 2005) and experience of symptoms of alcohol dependence (Saha et al., 2006). Thus many persons who do not fulfil criteria for a mental disorder nevertheless experience various psychiatric symptoms to different degrees. To incorporate this continuity of experiences in anti-stigma messages could be a promising way to reduce notions of differentness between those with and without mental illness, probably helping to combat the stigma of mental disorders.

However, so far it is not known whether belief in a continuum of mental illness symptoms is in fact associated with more tolerant attitudes towards persons with mental illness. Furthermore, it is unknown how continuum beliefs affect stigma in different mental disorders. Any potential effect of continuity beliefs could for example be stronger in unfamiliar disorders like schizophrenia than in more familiar disorders like alcoholism or depression. In this study we aim to close this gap by examining the relation between believing in a continuum of symptom experiences and attitudes towards persons with schizophrenia, depression and alcoholism. Following the concept of the stigma process proposed

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by Link and Phelan (2001), we expect continuum beliefs to be associated with more positive emotional reactions towards the affected persons and with less social rejection.

2. Methods

2.1. Survey

In two waves during March and April 2011 and November and December 2011, we conducted a representative population survey in Germany among adult persons of German nationality (> 18 years) living in private households. The sample was drawn using a random sampling procedure with three stages: (1) electoral wards, (2) households, and (3) individuals within the target households. Target households within the sample points were determined according to the random route procedure; target persons were selected according to random digits. Informed consent was considered to have been given when individuals agreed to complete the interview. Fieldwork was done by USUMA (Berlin), a company specialised in marked and social research. Altogether, 3642 persons completed the interview, reflecting a response rate of 64.0%. Although containing slightly more women and less better-educated and single respondents, our sample can be considered representative of the German population (Table 1).

2.2. Interview and case-vignettes

Personal, fully structured interviews were conducted face-to-face. The interview started with presenting randomly an unlabelled case-vignette of a person with either schizophrenia, depression or alcohol dependence. This resulted in independent sub-samples of $n=1235$ respondents being presented a schizophrenia vignette, $n=1220$ being presented a depression vignette, and $n=1187$ being presented a vignette depicting an alcohol dependent person. The gender of the person described varied at random. Identical vignettes had been used in earlier surveys, which were constructed to be consistent with the diagnostic criteria of the respective disorders in DSM-III-R and had undergone validation by blinded experts in psychopathology (Angermeyer and Matschinger, 1997).

2.3. Measures

2.3.1. Identification as mental illness
Following the presentation of the unlabelled case-vignette, we asked respondents whether they considered the person described as suffering from a mental illness in a medical sense. Answers were coded as 1=yes, 2=no and 3=don't know. For our analyses, we used a dummy variable with 1=identification as mental illness.

2.3.2. Belief in a continuum of symptom experience
We further asked respondents to indicate their agreement with the following statement: "Basically we are all sometimes like this person. It's just a question how pronounced this state is." Answers had to be given on a five-point Likert-scale, "1" indicating strong agreement and "5" indicating strong disagreement with the statement. We reversed this score for our analysis and used it as a continuous variable, a higher score thus indicating stronger belief in a continuum of symptom experience.

2.3.3. Emotional reactions
We presented respondents with a scale consisting of 10 items describing possible emotional reactions, asking them to indicate how they would react to the person described in the vignette. Answers were given on five-point Likert-scales anchored with 1="applies completely" and 5="does not apply at all".

The Kaiser-Meyer-Olkin measure of sampling adequacy for all items was 0.78, making the scale eligible for factor analysis. We entered all responses into an exploratory principal-component factor analysis, yielding three factors with an eigenvalue > 1. We performed varimax rotation of the three factors, resulting in un-correlated factor scores. Table 2 shows items, rotated factor loadings, Eigenvalues and the explained variance of the three factors. Together, the three factors accounted for a cumulative variance of 63%. We termed the first factor "fear", the second "anger", and the third "pro-social reactions". Scores were reversed for our analyses, higher scores indicating stronger emotional reactions.

2.3.4. Social distance
Respondents were then asked how willing they would be to accept the person described in the vignette in various social relationships, using the social distance scale developed by Link et al. (1987). This scale encompasses the following social situations: rent a room, work together, have as neighbour, let take care of a little child, have marry into family, introduce to friends, recommend for a job. With the

Table 1
Socio-demographic characteristics of the population sample.

	Total population 2010[a]	Survey 2011 ($n=3642$)
Gender		
Men	48.6	45.6
Women	51.4	54.4
Age		
18–25	11.3	8.5
26–45	31.9	30.7
46–60	26.9	28.5
> 61	29.9	32.4
Education[b]		
Unknown/pupil	1.0	0.7
No schooling completed	4.0	3.4
8/9 years of schooling	38.5	38.9
10 years of schooling	29.3	39.5
12/13 years of schooling	27.1	17.5
Marital status		
Married	51.9	53.8
Divorced	9.5	12.0
Widowed	9.1	11.9
Single	29.5	22.3

[a] Data from the Statistical Office Germany.
[b] Only persons ≥ 20 years, population data for younger persons not available.

Table 2
Rotated factor loadings, emotional reactions to a person with schizophrenia, depression or alcohol dependence ($n=3594$).

Item	Factor 1 "Fear"	Factor 2 "Anger"	Factor 3 "Pro-social"
I feel uncomfortable	**0.85**	0.12	−0.04
The person provokes fear	**0.82**	0.14	0.04
I feel insecure	**0.76**	0.17	0.07
I am amused	−0.03	**0.76**	0.04
I react angrily	0.26	**0.74**	−0.10
I feel annoyed	0.25	**0.73**	−0.08
The person provokes my incomprehension	0.30	**0.61**	−0.22
I feel sympathy	−0.10	0.12	**0.81**
I feel the need to help	0.02	−0.22	**0.76**
I feel pity	0.26	−0.21	**0.66**
Eigenvalue	3.11	1.92	1.21
Cumulative explained variance	31%	50%	63%

help of 5-point Likert scales respondents could indicate to what extent they were willing or unwilling to engage in the proposed relationships. For our analyses, we used a sum-score of all seven items, higher scores indicating stronger desire for social distance.

2.3.5. Contact
We elicited previous contact to persons with mental illness by asking respondents whether they had themselves received mental health care previously or whether they knew anybody who had been treated for mental illness. Answers were coded 0=no previous contact and 1=any previous contact.

2.4. Statistical analysis

We performed a series of linear regression analyses, using the sem command of STATA version 12.1 (StataCorp, 2011). For each of the three vignettes, we regressed the factor scores "fear", "anger", and "pro-social reactions" as well as desire for social distance as dependent variables on continuum belief, identification as mental illness, previous contact, gender, age and educational achievement. We report unstandardizied (B) and standardized coefficients (Beta). Unstandardized coefficients are best suited for comparisons between models, since standardization might differ in each model. In contrast, standardized coefficients facilitate comparison of different associations within one model if variables are coded differently. To find out whether the effect of continuum beliefs on social distance or emotional reactions differed between vignette conditions, we performed Wald-tests on the equality of the three parameters.