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ORIGINAL PAPER

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Determinants that shape public attitudes towards the mentally ill

A Dutch public study*

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Abstract *Background* The stigmatisation of the mentally ill is considered a well-established fact. To improve negative attitudes among the general public, we need to identify the factors that cause them. Drawing from previous studies, we combined a variety of variables to examine a comprehensive explanative model. *Objectives* We examined a sample of the Dutch public on their willingness to interact with mental patients. We examined a number of determinants concerning their influence on levels of social distance: demographical characteristics of the public, their beliefs about stereotypes of mental patients, their beliefs about causes of mental problems, their familiarity with mental illness. *Methods* We employed a questionnaire survey among two sub-samples of the Dutch public (n = 812, response 33%). *Results* Attributing psychiatric problems to structural causes (i.e. causes beyond patients' control and responsibility, such as genetic transmission) is associated with less social distance. Conversely, attribution to individual factors (e.g. drug abuse) related to more distant attitudes. Stereotypical beliefs about mental patients (e.g. untrustworthiness, aggressiveness, causing disturbances) relate to more social distance from mental patients. *Conclusions* Results implied that our comprehensive model explains only a modest amount of variance, but shows that to improve public mental health literacy and attitudes should first deal with the most negative stereotypical beliefs.

Key words: public study – mental illness – attitudes – social distance – stereotypes

Introduction

Public views on mental illness and the mentally ill have been examined extensively in many western [e.g. 1–4] and non-western societies [5, 6]. Results reveal in general that these views and attitudes are unfavourable. The social rejection resulting from this may handicap the mentally ill even further [7].

Monitoring and describing the nature and levels of social rejection has its purpose but many of these public studies teach us little of the underlying aspects that determine rejective behaviour towards the mentally ill. However, other, mostly later studies have improved this field of research by examining to what extent the negative societal reactions are influenced by, for instance, the socio-demographic features of the population [8], public beliefs about certain stereotypical characteristics of the mentally ill [9], aetiological beliefs about psychiatric problems [1, 10] and familiarity with mentally ill patients [11, 27]. In our study, conducted among the Dutch population, we have examined a number of these determinants of social rejection in a multivariate design.

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Explaining social rejection of the mentally ill

Socio-demographic characteristics

Many studies that examined underlying factors for rejecting the mentally ill searched for answers in demographic characteristics of the public. It was found, for instance, that with increased age, lower socio-economic status and lower education, people are less tolerant towards the mentally ill [2, 12, 13]. Furthermore, people living in more dense urban environments and people with an ethnic (non-white) background tend to express less tolerant attitudes [2, 8]. However, results of these studies were sometimes contradictive and the predictive powers of socio-demographic attributes seemed relatively low.

Beliefs about stereotypical characteristics of mental patients

In previous studies a wide range of negative stereotypical beliefs has been reported about the personal and behavioural characteristics of mentally ill persons. Most evidently, the public overestimates the level of *deviant* behaviour of mental patients, like violent, unpredictable and criminal behaviour [e.g. 1, 10, 14]. These beliefs about dangerous and threatening behaviour of mental patients are well-established explanations for the rejecting attitude of the public [e.g. Phelan et al., 2000].

In addition, psychiatric patients are also often seen as less *competent*, e.g. being less intelligent, less capable for work and less reliable [e.g. 2–4, 15]. Less efforts were made to examining the extent to which stereotypical beliefs concerning patients' competence may influence rejecting attitudes.

Causal attributions of mental illnesses

Although 'stressful circumstances' are predominantly seen as the most applicable cause, the public also differentiates between mental disorders, by attributing also genetic and biological factors to different diagnoses [1, 16, 17].

Some studies found that beliefs about the causes of mental illnesses influence the level of rejective behaviour towards mental patients. Martin et al. [8] found that people who attribute mental health problems to 'structural factors' (i.e. external attributed causes, like stressful circumstances or genetic/biological causes) are more willing to interact with mental patients than those who tend to see 'individual factors' (i.e. internal attributed causes, like bad character) as the main cause. Martin and his associates argue that social distance will increase when a person believes that mental patients can be held responsible (i.e. an internally orientated attribution) for their condition. Contradicting with this, Read and Law [10] found that biogenetic causal beliefs were actually negatively associated with social distance. They state that external causes may dismiss patients from any responsibility for their illness, but it also implies a lack of control over their mental disorder. Believing that a patient lacks control over his/her behaviour may, in turn, magnify the suspicion of unpredictable and violent behaviour. More research on the role of causal beliefs on the prejudice and discriminating behaviour towards mental patients is thus needed.

Familiarity with mental illness and patients

One factor that has shown a major impact on people's stigmatising views and behaviour is the degree of familiarity with mental illness. The greater the knowledge of or experience with mental illness, the less frequent people express the desire for social distance from patients [e.g. 18, 27]. Some studies also found that these improved attitudes are mediated by a decrease of negative perceptions of the 'dangerousness'-stereotype [11, 27].

Present study

The first aim of our study was to examine the Dutch public on their tendency to keep socially away from mental patients, their beliefs on some commonly endorsed stereotypical characteristics and their beliefs on the aetiology of mental illnesses.

Secondly, we examined the *relationship* between on the one hand, the demographical characteristics of the public, their beliefs about stereotypes of the mentally ill, the aetiology of mental health problems and their familiarity with mental illness, and on the other hand the tendency to keep socially distant from mentally ill persons. To a certain extent the effects of these outlined variables already have been examined by earlier research, but most of these studies only focused on only one or a limited number of variables to explain people's attitudes and/or behaviour. Less common is to enter these determinants in one predictive model simultaneously, so that the relative explanative powers of these variables and their interactions could be examined more closely.

Methods

Sample

The data for this study was gathered by means of a questionnaire that was sent to 2560 addresses. This sample comprised 1500 addresses, which were randomly selected from the Dutch national telephone book. In the Netherlands nearly every household had a fixed telephone connection in 1997[1]. Another 1060 questionnaires were sent randomly to people living less than 1 km from a mental

[1]In the Netherlands nearly every household had a fixed telephone connection in 1997 [19]

institution (using postal codes). For this purpose, 25 institutions were selected. The overall response rate was 33%. It yielded a sample of 812 respondents (from each sub-sample 445 and 367 respectively). The survey was held in 1997.

Questionnaire

In our questionnaire we applied the following variables:

Social distance

As the dependent variable we used an attitudinal social distance scale [20]: this measure indicates the extent to which people wish to avoid social interaction with people with a psychiatric background. Each item of the scale described a different hypothetical contact situation, all differing in the level of 'intimacy' of this interaction (items are presented in Table 2). A five-point Likert scale was used ranging from 'definitely willing' (coded 1) to 'definitely not willing' (coded 5). The total of five items were combined to produce a summative scale for 'social distance'. The scale ranged from 5 (low social distance) to 25 (high social distance) and had an internal consistency of 0.85 (Cronbach's Alpha).

Beliefs about stereotypical characteristics

We examined to what extent respondents believe in certain stereotypical characteristics that are generally associated with people who are mentally ill. Based on the research outlined above, we included the following personal/behavioural attributes in our study: 'intelligence', 'trustworthiness', 'tendency to aggression', 'employability', 'causing disturbance to other people', and 'criminal tendencies'. Respondents gave their assessment by the means of a five-point Likert scale. On statements like e.g. "People who are under psychiatric treatment are trustworthy", responses ranged from 'totally disagree' (coded 1) to 'totally agree' (coded 5).

Causal attributions

To assess the attributions of the cause of mental illnesses, the respondents were given a number of six items. We aimed to see to what extent people attribute these causes to 'structural factors' (i.e. externally attributed causes) or to 'individual level factors' (i.e. personally attributed causes). More or less similar to Martin et al. [8] we included the following external oriented items: 'brain-dysfunction', 'genetic transmission' and 'stressful domestic circumstances'. We also used the variable 'falling victim to sexual abuse', which is a clear example of the uncontrollable and involuntary nature of a traumatic event as a cause for mental health problems. For personally (i.e. internally) oriented items we included 'one's own character' [similar to 8], and 'substance abuse'. Perhaps even more than a person's character, the (ab)use of substances refers directly to a person's own irresponsible behaviour as a cause for mental health problems. Respondents scored these six causal attributions on a five-point Likert-scale; coded 1 ('never') to 5 ('often').

Background variables

Relying on earlier research, the following socio-demographics were measured: *age* (measured in years); *gender* (1 = male, 0 = female); *level of education* (measured with an ordinal level variable ranging from 1 (low education level) to 3 (high education level), and being *employed* in a regular job (1 = yes, 0 = no). In addition, we asked if people had any *personal experience* with mental illness or mental patients. Answers were coded into a binary variable (1 = yes, 0 = no).

Analysis

Since no substantial differences were found between the sub-samples on any of the relevant variables (see also [21]), the data of the two sub-samples were combined.

Table 1 Percentages and Chi-square test comparisons of the demographics of the research population (n = 812) and the general Dutch population

	General Dutch population[a]	Sample (%)
Age		
20–39	42.7	35.1
39–64	39.9	46.9
64–80	13.4	15.8
80 and older	4.1	2.2***
Gender		
Male	49.5	54.3
Female	50.5	45.7
Level of education		
Low	31.2	14.4
Middle	49.2	43.6
High	19.3	42.1***
Employment		
Having a job	57.5	58.1
Unemployed	42.5	41.9
Personal experience with mental illness		
No	–	54
Yes, namely	–	46
As a patient		7.7[b]
As a family member of a patient		18.2
As a friend of a patient		6.5
As a neighbour of a patient		2.7
In the field of work		13.3
Other		4.7

*Discrepancy between the General Dutch Public and sample significant at $P < 0.05$
**Discrepancy between the General Dutch Public and sample significant at $P < 0.01$
***Discrepancy between the General Dutch Public and sample significant at $P < 0.001$
[a]Taken from the Dutch Annual Journal of Statistics [19]
[b]These percentages add up to more than 46% because people were able to choose more than one option

Descriptive analyses were made on the variables outlined above. We examined to what extent the respondents tend to keep socially away from mental patients, in which manner they ascribe certain stereotypical characteristics to this group, and what the public believes to be plausible causes of mental disorders.

Secondly, we performed a number of multivariate regression analyses in which we examined the relative effects of (1) the beliefs on stereotypical characteristics, (2) causal attributions, (3) personal experiences with mental illness, and (4) the socio-demographic characteristics of the respondents, on their tendency to keep socially away from people with mental illness.

Results

Background variables

Table 1 presents the background variables of our sample (column 2). We compared these results with the statistics from the Dutch general public aged 20 and older [19]. See column 1.

We found no significant discrepancies on gender and employment. The respondents of our sample appeared to be somewhat older and more highly educated. It may be that older and more educated are more likely to voluntarily respond to written ques-

Table 2 Descriptive data of the social distance scale: mean scores, standard deviations and percentages

Imagine that you know about someone that s/he has been treated in a mental hospital. Would you mind having this person to...	Means[a]	Percentages "willing" and "definitely willing"	Percentages "maybe"	Percentages "unwilling" and "definitely unwilling"
1. ...come and live next door to you?	2.42 (0.76)	56.8%	38.5%	4.7%
2. ...become friends with you?	2.53 (0.75)	46.5%	47.9%	5.6%
3. ...look after your children for a few hours?	3.26 (0.90)	16.5%	49.6%	33.9%
4. ...work with you as a colleague?	2.41 (0.77)	58.3%	36.1%	5.6%
5. ...marry one of your children?	3.24 (0.90)	15.3%	54.8%	29.9%
Sum score	16.15 (3.22)			

[a]Mean scores from a 5-point Likert scale ranging from '1' (= 'definitely willing') tot '5'(= 'definitely not willing'): a higher score indicates a stronger tendency for social distance

Table 3 Descriptive data of the stereotypical characteristics: mean scores, standard deviations and percentages

People who are in psychiatric treatment...	Mean[a] (SD)	Percentage "agree" and "totally agree"	Percentage "agree" nor "disagree"	Percentage "disagree" and "totally disagree"
1. ...are intelligent	3.05 (1.04)	26.8%	54.4%	18.8%
2. ...are trustworthy	2.67 (0.99)	15.4%	46.3%	38.3%
3. ...tend to be aggressive	4.00 (0.94)	74.7%	19.1%	6.2%
4. ...are able to maintain a regular job	2.91 (1.14)	32.8%	30.0%	37.2%
5. ...tend to cause disturbances/inconvenience	2.85 (1.02)	24.3%	41.8%	33.9%
6. ...tend to be criminal	2.28 (1.03)	10.2%	32.9%	56.9%

[a]Mean scores from a 5-point Likert scale ranging from '1' (= 'Totally disagree') tot '5' (= 'Totally agree')

tionnaires. Almost half (46%) claimed to have some experience with mental illness, predominantly with a family member or related to one's work.

Social distance

In Table 2 we present the descriptive data on the five social distance items. On items 1 and 4, a majority showed a willingness to interact with a mental patient. However, on the more 'intimate' level (i.e. items 3 and 5), the respondents expressed less tolerance.

We found that many respondents chose to refrain from any outspoken attitude concerning these items (i.e. scoring '3' on the five-point Likert scale). On item 4 this was 36% of the respondents and, on items 3 and 5 this neutral category even comprised 49% and 55%, respectively. The same unresponsiveness is reflected in the summed social distance score which holds a neutral position between its potential range of 5–25.

Beliefs about stereotypical characteristics

As the scores in Table 3 show, a vast majority endorsed the belief that people receiving psychiatric treatment tend to be aggressive, and only about 15% believed in the trustworthiness of mental patients. On the other hand, however, only few respondents associated people with mental problems with criminal activities. As reflected by the neutral scores on these remaining items, people's views on the other stereotypical attributes seem less clear.

Causal attributions

As can be seen in Table 4, a majority of the public saw most of the causal attributions as 'likely' causes of mental illness. The item 'one's own character' was the only exception. It indicates that many respondents believe that mental disorders can be rooted in many different conditions, instead of just one. Brain-dysfunction, sexual abuse and substance abuse are perceived as the most probable causes. Thus, with these specific items standing out, the public finds causes for mental illness in both external and internal orientated attributions.

Predictive models of social distance

In Table 5 we show the results of four different models to examine their capacity to explain people's preferences for social distance towards mental patients. Model 1 is the most basic; it only includes the socio-demographic characteristics of the public. Step by step we added the other variables to the equation (familiarity with mental illness, beliefs on causal attributions and beliefs on mental patient stereotypes, respectively). Model 4 is the most elaborate; comprising all the predictive variables we included in this study.

The estimates reported in model 1 indicated that the socio-demographic background of the public only played a minimal role in predicting levels of social distance. Only people's age and, to a lesser extent their education, were positively related to evasive attitudes.

Table 4 Descriptive data of the causal attributions: mean scores, standard deviations and percentages

How often do you think that mental illness is caused by the following factors?	Mean[a] (SD)	Percentage "regularly" and "often"	Percentage "sometimes"	Percentage "rarely" and "never"
External attributed causes				
1. Genetic transmission	3.60 (0.91)	53.6%	37.0%	9.4%
2 Brain-dysfunction	4.04 (0.87)	74.7%	21.3%	4.0%
3 Stressful domestic circumstances	3.66 (0.85)	57.3%	35.2%	7.5%
4. Sexual abuse	4.13 (0.82)	78.9%	18.4%	2.7%
Internal attributed causes				
5. Substance abuse	3.92 (0.88)	70.9%	24.2%	4.9%
6. One's own character	3.14 (1.04)	37.1%	40.9%	22.0%

[a]Mean scores from a 5-point Likert scale ranging from '1' (= 'Rarely') tot '5' (= 'Often')

Table 5 Results from a stepwise multiple regression analysis predicting social distance with (1) socio-demographic attributes, (2) experience with mental illness, (3) causal attributions and (4) beliefs about stereotypical characteristics (n = 662)

	Model 1 β	Model 2 β	Model 3 β	Model 4 β
Socio-demographic attributes				
Age	0.145***	0.140***	0.057	0.024
Education	−0.093*	−0.086*	−0.082*	−0.051
Employment	−0.030	−0.042	−0.040	−0.030
Experience/familiarity		−0.147***	−0.123**	−0.072*
Beliefs about causal attributions				
Brain-dysfunction			0.011	−0.016
Genetic transmission			−0.086*	−0.096*
Stressful domestic circumstances			−0.082*	−0.059
Sexual abuse			−0.172***	−0.103**
Substance abuse			0.147***	0.134***
Character			0.068	0.039
Beliefs about stereotypical characteristics				
People that are under psychiatric treatment ...				
are intelligent				−0.079*
are trustworthy				−0.174***
tend to be aggressive				0.131***
are able to maintain a regular job				−0.032
tend to cause disturbances				0.169***
tend to be criminal				0.089*
R^2	0.037	0.059	0.093	0.197
Increment		0.022	0.034	0.106

*Significant on the $P < 0.05$ level; **significant on the $P < 0.01$ level; ***significant on the $P < 0.001$ level

In the second model we added the variable 'personal experience with mental illness'. It increased the explained variance to 5.9%.

In model 3 we extended the model with the items on the causal attribution of mental illnesses. We found that viewing 'genetic transmission' as a probable cause for mental illness was related to more pro-social attitudes. In the same direction 'sexual abuse' showed a larger impact. The belief that mental illness is caused by stressful domestic circumstances was only very modestly related to social distance. The belief that mental disorders are caused by substance abuse is, as expected, negatively related to people's tolerance. The predictive power of the model was incremented by 3.4%. We note that in this model the estimates of 'familiarity' and especially 'age' were reduced, indicating a mediation effect when the items on causal attribution were entered.

In the last equation, we entered the items on stereotypical beliefs. The items that refer to deviant and threatening behaviour (aggressive, criminal and disturbing behaviour) had a negative impact on people's attitude towards mental patients. Compared to this, 'trustworthiness' showed an even stronger relationship. Lastly, the belief on the patient's intelligence had a positive impact on people's attitude.

Regarding the increment of 10.6% of the variance explained after entering this last cluster of items, it seems that the way people think about these stereotypical characteristics is the most influential factor in this explanative model. It is noteworthy that the coefficients of many other estimates in this fourth equation are reduced, like for instance age, education, experience with mental illness and sexual abuse as a cause for mental illness. This suggests that the influence of these variables is mediated by the stereotypical beliefs.

Discussion

Attitudes and beliefs towards the mentally ill

Although the respondents of this sample do not show a sharp negative attitude on the social distance scale, some results do signal a tendency towards 'cautiousness'. When contact situations became more intimate, a majority of the respondents showed a decrease in tolerance towards the mentally ill. Similar conclusions were drawn by e.g. Kwekkeboom [22] in a Dutch population, but also other Western countries [1, 13].

In line with previous studies [e.g. 8, 9, 17], we found that the stereotype of aggressive behaviour played a central role in people's perception of mental patients. However, certainly not all characteristics that refer to deviant behaviour are so negatively assessed, like criminal behaviour and causing disturbances. Features referring to mental patients' competence were assessed more moderately: intelligence and employability are not viewed as very outstanding stereotypical attributes, neither positively nor negatively. Only patients' trustworthiness was assessed rather negatively, but this attribute could also be interpreted as an aspect of deviant behavioural characteristics.

Respondents clearly believed that the cause of mental disorders is often rooted in psycho-social factors/stressful circumstances, as also [1, 6] found. However, the public does not rule out other possibilities: causes are also attributed to factors on the medical/genetic and individual/moral level. Acknowledging the fact that mental illness can be rooted in different factors is fairly up-to-date with views of many mental health experts [1].

It is noteworthy that 'substance abuse' is also associated with mental illness as a common cause. Although there is a evident relationship between psychiatric problems and substance abuse (for instance comorbidity, i.e. people suffering from both illnesses), this should not necessarily lead to any inferences of causality. Epidemiological data still remains unclear about the extent to which psychiatric problems can originate (solely) from the (ab)use of substances [23, 24]. Thus, while such causal relationship may exist, it should not be overestimated.

The above results should be interpreted with some care. The response rate was 33%, which is not very high, yet comparable to previous surveys [e.g. 9]. There was some evidence for selective non-response, as the respondents showed to be somewhat more educated and older than the general public. Since a lower education level and increased age have been associated with more negative beliefs and attitudes [e.g. 2, 12] there may have been an influence on the results. Taking into account these remarks, we conclude that negative beliefs and reticent attitudes towards the mentally ill still prevail.

Explaining levels of social distance

Our main goal in this study was to examine the relative importance of several variables regarding their power to predict people's tendency to socially reject people with a mental illness.

The most important result we found is that even the most elaborate model we employed to predict levels of social distance was only able to explain a modest 20% of variance. From this we have to conclude that any fundamental explanation for why people want to keep socially away from mental patients remains for the most part elusive.

It may be, of course, that our models overlook some important yet unidentified variables. However, perhaps we should not over-estimate the possibility to comprehend the dynamics that underlie social rejection in one general applicable model. The (un)willingness to interact with a mentally ill person could be largely dependent on the immediate situational context in which social interaction takes place. In each "situational construction" [25] it may all depend on the extent to which stigmatising representations about mental patients are relevant and are acted upon.

Despite the weak explanative powers of the overall model, findings do yield some useful insights. We will discuss them in order of contribution to the explanative model.

We found that people's beliefs about stereotypical characteristics of mental patients appear to be the most influential. Our study shows that the stereotype of aggressive behaviour is not only widely endorsed but also has a significant negative influence on people's attitudes. This is in line with e.g. Link et al. [1], Phelan et al. [14] and Monahan [26]. However, the focus on the violence/aggressiveness stereotype is somewhat one-sided: besides aggressive behaviour, almost all other stereotypical attributes (i.e. intelligence, trustworthiness, disturbing and criminal behaviour) also had significant associations with social distance. This means that a wider range of beliefs about patients' traits and behaviour shapes the tendency for social distance and should be taken into account in future research. This is also found by Socall and Holtgraves [9] and Crisp et al. [3].

A more modest impact on social distance levels is made by beliefs about the aetiology of mental illness. We found that causes of a 'structural' kind (stress or genetic/biological) are associated with lower levels of social rejection, while 'substance abuse' (as a factor on the individual level) seems to have a negative influence on social distance. These results suggest that the belief that patients can be held accountable for their illness influences people's willingness for social engagement negatively. These conclusions are roughly in line with Martin et al. [8], but contrast with studies of e.g. Read and Law [10]. They found that attributions to medical/genetic causes generates less tolerant attitudes towards mental patients. Hence the issues on

how aetiology beliefs have an impact on people's attitudes towards the mentally ill is still inconclusive and should be examined further.

Despite an effect of age and education on social distance in the first two models, the explanative powers of these socio-demographics were very modest. In the more advanced models (models 3 and 4), the effects of socio-demographical variables were minimized even further.

We did not expect that people's personal experience with mental illness would also be so modestly related. According to, for instance, Angermeyer and Matschinger [27], Corrigan et al. [11] and Read and Law [10], personal experience with mental illness plays an important role in people's attitude towards the mentally ill. In our model, however, the association of the experience variable with social distance was almost reduced to non-significance once the stereotypical beliefs were included. This would suggest that the positive influence of personal experience with mental illness on a person's attitude is mediated by the (more positive) views one has on these stereotypical attributes.

Conclusion

Whereas campaigners have been trying to improve people's views and attitudes by educating them on the aetiology of mental illnesses, our study suggests that this may not prove to be the most effective strategy since (1) little improvement can be made on this issue as the public already seems to endorse rather contemporary beliefs about the geneses of mental illness, and (2) its link to social rejection is not that strong. To improve the public's mental health literacy and their attitudes, emphasis should be put on the recalcitrant and stereotypical beliefs we found. Although untrustworthiness and aggressive behaviour are the most damaging and most widely endorsed, our study proves that there are other stereotypes that influence people's attitude and that should also be taken into account. However, we must bear in mind that our comprehensive model seems to predict rejective attitudes towards the mentally ill only to a modest extent. Therefore, any suggestions based on our analyses to tackle rejective behaviour towards the mentally ill are not as strong as we would have wished them to be.

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