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Attitudes Toward Community Mental Health Care: The Contact Paradox Revisited

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Abstract Contact with people with mental illness is considered to be a promising strategy to change stigmatizing attitudes. This study examines the underlying mechanisms of the association between contact and attitudes toward community mental health care. Data are derived from the 2009 survey "Stigma in a Global Context—Belgian Mental Health Study", using the Community Mental Health Ideology-scale. Results show that people who received mental health treatment themselves or have a family member who has been treated for mental health problems report more tolerant attitudes toward community mental health care than people with public contact with people with mental illness. Besides, the perception of the effectiveness of the treatment seems to matter too. Furthermore, emotions arising from public contact are associated with attitudes toward community mental health care. The degree of intimacy and the characteristics of the contact relationship clarify the association between contact and attitudes toward community mental health care.

Keywords Mental illness · Attitudes · Contact · Deinstitutionalization · Community mental health care

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Introduction

Intergroup contact has long been social psychology's and sociology's most promising strategy for changing stigmatizing attitudes (Corrigan and Penn 1999; Corrigan et al. 2001; Pinfold et al. 2003). When members of the general population have direct interaction with people with mental illness, they might experience people with mental illness as no different from other people. Accordingly, prejudices about people with mental illness are challenged (Holmes et al. 1999; Penn et al. 1994). Several divergent theoretical frameworks provide an explanation for this phenomenon. First, the theory of cognitive dissonance assumes that individuals alter their beliefs when they encounter information that is inconsistent with the stereotypes they hold (Festinger 1957). Second, the recategorization theory (Gaertner et al. 1990) claims that contact with an out-group member results in changes in the classification of that person. Instead of viewing the person with mental illness as one of 'them', he or she becomes one of 'us'. Third, the attribution theory states that interpersonal contact might change perceptions of controllability and inferences about personal responsibility (Corrigan 2000).

However, this theoretical reasoning is not supported by sufficient empirical research (Desforges et al. 1991). The findings of empirical studies have been inconsistent. Some studies found that contact with people with mental illness decreases the desired amount of social distance from people with mental illness (Angermeyer and Matschinger 1996; Hall et al. 1993; Ingamells et al. 1996; McKeon and Carrick 1991; Vezzoli et al. 2001). Whereas, Phelan and Link (2004) reported that contact with people with mental illness might encourage a desire for greater social distance, if the public perceives people with mental illness as dangerous. Additionally, a range of prospective studies did not find any significant effect of contact on social distance

(Arkar and Eker 1992; Stuart and Arboleda-Florez 2001). Consequently, Brunton (1997) and Callaghan et al. (1997) introduced the term 'contact paradox'. Farina (1982) and Huxley (1993) put forward that the mere presence of contact is not sufficient to alter negative attitudes. Therefore, it is needed to examine which contact characteristics are associated with a desire for less social distance toward people with mental illness.

This study applies the concept of social distance to the context of the deinstitutionalization movement. Due to this movement, inpatient stays have been reduced and community mental health care facilities have been established, since community-based care is assumed to be intrinsically more humane, more therapeutic and more cost-effective than hospital-based care (Thornicroft and Bebbington 1989). In Belgium, community mental health care refers to initiatives of sheltered living, psychiatric nursing homes and host families which are supported by professional services (Belgian Health Care Knowledge Centre 2010). The theoretical rationale underlying this movement assumes that intensifying the public's contact with people with mental illness provides an opportunity to facilitate social reintegration of people with mental illness into the community (Novella 2008). Therefore, we will study the association between contact and the attitude toward community mental health care into more detail, by focusing on potential mechanisms that might modify this association.

First, it is crucial to take the type of contact into account (Angermeyer and Matschinger 1996; Wolff et al. 1996). The contact hypothesis, originally developed by Allport (1954), suggests that contact will only reduce prejudice under certain conditions; contact has the best effect if it is personal, voluntary, intimate, and repeated over time (Gaertner et al. 1990; Kolodziej and Johnson 1996; Sigelman and Welch 1993). Ellison and Powers (1994) agree that the effect of contact is dependent on the level of intimacy of the relationship; only very close relationships are able to modify the prejudices that generate discrimination against people with mental illness. In sum, we distinguish between different types of contact and hypothesize that contact with a higher degree of intimacy will be related to more positive attitudes toward community mental health care (H1).

Second, the characteristics of the contact relationship should be considered (Kolodziej and Johnson 1996; Jorm and Oh 2009; Martin et al. 2007), since not every type of contact with people with mental illness has a positive outcome. A first example is a threatening public encounter with a stranger who appears to be mentally ill. The exposure to people who have mental health problems might activate emotional reactions such as fear, anger, or pity due to the incomprehensibility of mental illness (Corrigan et al. 2003; Horwitz 1982). Those emotional reactions are persistent and yield behavioral outcomes (Weiner 1995); fear seems to lead to a desire for greater social distance (Angermeyer and Matschinger 1996; Levey and Howells 1995; Link and Cullen 1986; Wolff et al. 1996), while pity is more likely to result in a preference for less social distance (Angermeyer and Matschinger 1997; Corrigan et al. 2003; Martin et al. 2000). A second example is having a family member who has a mental health problem, but in which case the mental illness has casted a cloud upon your relationship. Martin et al. (2007) emphasized that contact reduces the desired social distance, only if the outcome of the relationship is rewarding instead of causing distress. A third example is a friend with mental illness who relapses from time to time. Huxley (1993) noted that contact with someone who has been treated effectively for his or her mental illness is more likely to be associated with improved attitudes. In brief, we expect that the association between contact and the attitude toward community mental health care will depend on the characteristics of the contact relationship (H2).

In addition to contact, previous research has found a range of socio-demographic characteristics that determine the attitude toward community mental health care. Taylor and Dear (1981) pointed out that women, young people, more highly educated people, and people with a higher occupational status all seem to be more tolerant toward community mental health care. The study of Song et al. (2005), confirmed the negative relationship between age and attitudes toward community mental health care, while Brockington et al. (1993) validated the association between occupational status and attitudes toward community mental health care.

Methods

Sample

This study is based on data from the survey "Stigma in a Global Context—Belgian Mental Health Study" (2009). The survey was implemented by means of fully structured, face-to-face Computer Assisted Personal Interviews and questioned the attitudes toward people with mental illness and mental health care services among the general public. We used a multistage cluster sampling design to define a representative sample of the Belgian population. In stage 1, municipalities were weighted according to their number of inhabitants and 140 municipalities were selected, including the possibility of being selected more than once. In stage 2, 15 respondents were selected randomly within each municipality, based on data from the Belgian national register, representing the adult, non-institutionalized population. Of the target sample of 2,100 people, 1,166 respondents gave their informed consent and participated. Following the guidelines of the American Association of Public Opinion Research, the response rate is 56.1 %

(AAPOR Response Rate 1) and the cooperation rate amounts to 67.7 % (AAPOR Cooperation Rate 3). A post-stratification weight factor was created to compensate for the effects of the sample design and non-response and to approximate the cross-classification of the census population count within gender, age and education.

Dependent Variable

When studying attitudes toward people with mental illness, many studies have adopted the CAMI scale (Community Attitudes toward the Mentally Ill) of Taylor and Dear (1981). The CAMI scale is based on the OMI scale (Opinions About Mental Illness) of Cohen and Struening (1962), but the number of items has been reduced and the scale has been adjusted to target the general population instead of professional care providers. This study used one specific subscale of the CAMI scale, namely the *Community Mental Health Ideology-scale* (CMHI) (Sévigny et al. 1999). This scale questions the acceptance of community mental health facilities and contrasts the therapeutic value of community care with the potential risks to local residents. For each of the 10 items, the respondents were asked to indicate the extent to which they agreed with the statement. The response format was a 5-point Likert scale with the following answer categories: strongly disagree/disagree/neutral/agree/strongly agree. A higher score is indicative of a more positive attitude toward community mental health care. In order to ensure the reliability and validity of the scale, the Cronbach's Alpha was measured and we conducted an exploratory factor analysis. The internal consistency was very good (Cronbach's Alpha = 0.86) and the principal components analysis revealed only one component (eigenvalue = 4.545).

Independent Variables

To distinguish between different *types of contact*, the respondents were asked a range of questions. Have you personally ever received treatment for a mental health problem? Has a relative of yours ever received treatment for a mental health problem? Has anyone within your circle of friends and acquaintances ever received treatment for a mental health problem? Have you ever seen someone who seems to have a serious mental health problem in a public space? If the respondent did not answer any of the aforementioned questions in the affirmative, he or she was assigned to the category 'no contact at all'. In sum, we established five hierarchical categories representing the *type of contact* with people with mental illness: (1) *personal experience*; (2) having a *family member* who has been undergoing psychiatric treatment; (3) knowing *someone within their circle of friends and acquaintances* who has been undergoing psychiatric treatment; (4) *public contact*; (5) *no contact at all*. If several categories applied to the respondent, the one representing the highest degree of intimacy was chosen.

To clarify the association between contact and the attitude toward community mental health care, we included a range of *characteristics of public contact and interpersonal contact.*

If the respondents mentioned that they had met someone in public who seemed to have a mental illness, they were asked some additional questions regarding the characteristics of that contact: frequency and emotional reactions. The *frequency* of the public contact that had occurred ranged from 'rarely' and 'occasionally' through 'frequently'. The questions related to *emotional reactions* included 'How frightening do you find people that you see in public places that seem to have a serious mental health problem?' and 'How much sympathy do you feel for people that you see in public spaces that seem to have a serious mental health problem?' The response categories were situated on a 4-point Likert scale ranging from 1 (not at all frightening/no sympathy at all) to 4 (very frightening/a great deal of sympathy).

The respondents who mentioned that they had known someone (family member, friend or acquaintance) who received treatment for a mental health problem were asked subsequently what the closeness of the relationship was, whether the received treatment was perceived as effective and how much distress this person's mental health problem caused them. The *closeness* of the relationship ranged from 1 (not at all close) to 4 (extremely close). The questions related to the *perceived effectiveness of the treatment* and the *level of distress* had the following answer categories: 'not at all', 'a little', 'quite a bit', and 'a great deal'. The perceived effectiveness of the treatment was recoded into two categories; if participants responded with 'a great deal' or 'quite a bit', they received the score of 1, while those who replied with 'a little' or 'not at all' served as the reference category. The level of distress was scored according to the aforementioned 4-point Likert scale.

Control Variables

As concerns *gender*, women received the score of 1 and men served as the reference category. *Age* was measured in years. *Education* was measured as the number of years of education people had completed. This is often used as a proxy variable for educational attainment (Schneider 2007). *Employment status* is a categorical variable: people with a job (reference category) were compared with people who are unemployed, retired, or in another position (chronically ill or disabled, househusband/housewife, student, etc.).

Analysis Procedure

First, two descriptive analyses have been done to describe the study population (Table 1) and the different items of the dependent variable, the CAMI scale (Table 2).

To study the association between *type of contact* and attitudes toward community mental health care, we use the full sample which consists of all the respondents, whether they have had personal, interpersonal, public or no contact at all. After having deleted the missing cases list wise, the weighted full sample is comprised of 1,104 respondents. We compare those with public contact with people with mental illness with more intense types of contact (interpersonal contact and personal experience) and with those with no contact at all (Table 3).

To study how the *characteristics of contact relationships* are related to the attitude toward community mental health care, we extracted two nested subsamples of the full

Table 1 Descriptives study population (weighted data SGC-BMHS, 2009)

	Full sample (N = 1104)				Sample of people who *had public contact* (N = 787)				Sample of people who *had interpersonal contact* (N = 626)			
	N	%	Mean (SD)	Min–max.	N	%	Mean (SD)	Min–max.	N	%	Mean (SD)	Min–max.
Dependent variable												
CAMI			36.189 (6.132)	12–50			36.438 (5.995)	12–50			36.947 (5.852)	12–50
Independent variables												
Control variables												
Gender												
Men	543	49.2			383	48.7			283	45.3		
Women	560	50.8			403	51.3			342	54.7		
Age			47.99 (17.869)	18–94			45.597 (16.745)	18–89			46.317 (16.585)	18–93
Years of education			11.991 (3.660)	0–24			12.335 (3.597)	0–24			12.634 (3.562)	0–24
Employment status												
Employed (ref.cat.)	598	54.2			460	58.5			365	58.3		
Unemployed	64	5.8			49	6.2			34	5.5		
Retired	256	23.2			146	18.6			119	19.0		
Other	185	16.7			131	16.7			108	17.3		
Contact types												
Personal experience	168	15.2			134	17			138	22		
Interpersonal contact												
Family member received treatment	291	26.4			233	29.6			281	44.8		
Friend or acquaintance received treatment	217	19.7			169	21.4			207	33.1		
Public contact	252	22.8			252	32			–	–	–	–
No contact at all	176	15.9			–	–	–	–	–	–	–	–
Contact conditions												
Public contact												
Frequency							1.634 (0.715)	1–3				
Arising feelings of fear							1.964 (0.726)	1–4				
Arising feelings of pity							2.968 (0.708)	1–4				
Interpersonal contact												
Closeness											2.788 (0.929)	1–4
Level of distress											2.675 (0.983)	1–4
Perceived effectiveness of treatment											0.564 (0.496)	1–4

Table 2 Community mental health ideology scale

	Strongly agree (%)	Agree (%)	Neither agree, neither disagree (%)	Disagree (%)	Strongly disagree (%)
Residents should accept the location of mental health facilities in their neighborhood to serve the needs of the local community	21.8	55.1	11.9	8.9	2.2
The best therapy for many mental patients is to be part of a normal community	22.4	58	12.4	6.7	0.5
As far as possible, mental health services should be provided through community based facilities	13.2	63.8	14.8	7.5	0.7
Locating mental health services in residential neighborhoods does not endanger local residents	13.1	52.3	18.4	14.2	2.0
Residents have nothing to fear from people coming into their neighborhood to obtain mental health services	14.9	56	18.2	9.6	1.3
Mental health facilities should be kept out of residential neighborhoods	2.5	13.5	18.9	55.3	9.8
Local residents have good reason to resist the location of mental health services in their neighborhood	2.6	16.3	21.3	49.5	10.3
Having mental patients living within residential neighborhoods might be good therapy but the risks to residents are too great	3.4	22.4	30.5	39.2	4.4
It is frightening to think of people with mental problems living in residential neighborhoods	2.2	16.1	18.1	54	9.5
Locating mental health facilities in a residential area downgrades the neighborhood	3.4	19.8	17.5	50.0	9.2

Table 3 The association between contact variables and the attitude toward community mental health care among all respondents, controlled for socio-demographic variables (N = 1104, weighted data SGC-BMHS, 2009)

	B	SE
Constant	31.826	1.130**
Gender (ref.cat.: Men)	−0.727	0.372
Age	0.018	0.015
Education	0.209	0.055**
Employment status (ref.cat.: Employed)		
Unemployed	−0.422	0.806
Retired	−1.191	0.645
Other	0.234	0.528
Contact types (ref.cat.: Public contact)		
Personal experience	1.377	0.608*
Family member received treatment	1.198	0.524*
Friend or acquaintance received treatment	0.742	0.559
No contact at all	−1.124	0.601
$R^2 = 0.051$		

* $p < 0.05$; ** $p < 0.001$

sample. Subsample A zooms in on people with public contact. Those who have never met someone with mental illness in public are excluded from the sample, even if they personally received mental health treatment or had interpersonal contact with someone who received mental health care. As a result, subsample A consists of 787 respondents. We study whether the attitude toward community mental health care depends on the emotional reactions that arise due to public contact with people with mental illness, controlled for the frequency of that public contact and the type of contact (only public contact serves as the reference category) (Table 4).

Subsample B focuses on people who have someone in their family or circle of friends and acquaintances who has been treated for mental illness and amounts to 626 respondents. We examine whether the attitude toward community mental health care is dependent of the perceived effectiveness of the received treatment or the level of distress caused by the contact relationship, controlled for the closeness of the relationship and the type of contact (Table 5).

All models mentioned above were estimated in IBM SPSS Statistics 19 by means of linear regression models (Ordinary Least Squares), controlled for a range of demographics. The results of the weighted samples are presented. We report the unstandardized coefficients and the standard errors of the independent variables. The total explained variance of the model is mentioned at the bottom of the table.

Ethical Approval

The study was approved by the Privacy Commission for the ethical aspects related to the research. Furthermore,

Table 4 The association between contact variables and the attitude toward community mental health care among the respondents who had public contact, controlled for socio-demographic variables (N = 787, weighted data SGC-BMHS, 2009)

	B	SE
Constant	29.421	1.596***
Gender (ref.cat.: Men)	−1.207	0.417**
Age	0.027	0.017
Education	0.272	0.061***
Employment status (ref.cat.: Employed)		
Unemployed	−0.418	0.873
Retired	−2.141	0.742**
Other	0.511	0.579
Contact types (ref.cat.: Only public contact)		
Personal experience	0.744	0.619
Family member received treatment	0.695	0.529
Friend or acquaintance received treatment	0.524	0.567
Contact conditions of public contact		
Frequency	0.521	0.286
Arising feelings of fear	−1.641	0.282***
Arising feelings of pity	1.796	0.290***
$R^2 = 0.136$		

○ $p = 0.05$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

Table 5 The associations between contact variables and the attitude toward community mental health care among the respondents who had interpersonal contact, controlled for socio-demographic variables (N = 626, weighted data SGC-BMHS, 2009)

	B	SE
Constant	34.394	1.543
Gender (ref.cat.: Men)	−1.220	0.475*
Age	0.002	0.020
Education	0.197	0.069**
Employment status (ref.cat.: Employed)		
Unemployed	−0.725	1.040
Retired	−0.732	0.845
Other	0.986	0.648
Contact types		
(ref.cat.: Friend or acquaintance received treatment)		
Personal experience	1.648	0.682*
Family member received treatment	0.980	0.564
Contact conditions of interpersonal contact		
Closeness	0.194	0.304
Level of distress	−0.519	0.290
Perceived effectiveness of treatment	1.211	0.468*
$R^2 = 0.063$		

* $p < 0.05$; ** $p < 0.01$

there are no known conflicts of interest and all authors certify responsibility for the manuscript.

Results

Table 1 presents the descriptives of the study population of the full sample and the nested subsamples A and B.

Table 2 illustrates the different items of the Community Mental Health Ideology-scale. We can conclude that around one-fifth of our respondents hold the opinion that local residents may resist the location of mental health services in their neighborhood. One out of four respondents agrees that having mental patients living within residential neighborhoods might be good therapy but that the risks to residents are too great.

The first research question refers to Table 3. We question whether the attitude toward community mental health care depends on the type of contact one has with people with mental illness. The results in Table 3 indicate that those with personal experience (B = 1.377, SE = 0.608, $p < 0.05$) and those who have a family member (B = 1.198, SE = 0.524, $p < 0.05$) who has been treated for mental health problems report more positive attitudes toward community mental health care, compared to those with only public contact. The attitudes of people who have a friend or acquaintance who received mental health treatment and people without contact do not seem to differ significantly from the attitudes of people with public contact with people with mental illness. In brief, the impact of contact on the attitude toward community mental health care depends on the degree of intimacy of the contact relationship.

The second research question refers to Tables 4 and 5. We question whether the characteristics of contact are associated with the attitude toward community mental health care. Table 4 shows that some characteristics of public contact do matter. Emotions that arise when meeting someone in public who seems to have a mental illness are significantly linked to the attitude toward community mental health care. The more people fear people with mental illness whom they have met in public, the more negative their attitudes appear to be (B = −1.641, SE = 0.282, $p < 0.001$). On the contrary, the more people feel pity for people with mental illness, the more positive their attitudes toward community mental health care becomes (B = 1.796, SE = 0.290, $p < 0.001$). The association between the frequency of public contact and the attitude toward community mental health care is not significant.

Table 5 illustrates the association between the characteristics of interpersonal contact and the attitude toward community mental health care. The results show that if people perceive the received treatment as effective, they

report a more positive attitude toward community mental health care (B = 1.211, SE = 0.468, $p < 0.05$). The level of distress that the relationship causes does not seem to make any difference and neither does the closeness of the relationship. In brief, our results indicate that the association between contact and attitudes toward community mental health care is dependent on the characteristics of that contact relationship.

In reference to the control variables, the results reveal that women seem to report more negative attitudes than men among the subsample of respondents with public contact (Table 4: B = −1.207, SE = 0.417, $p < 0.01$) and among the subsample of respondents with interpersonal contact (Table 5: B = −1.220, SE = 0.475, $p < 0.05$). The attainment of more years of education corresponds with more tolerant attitudes in all three samples (Table 3: B = 0.209, SE = 0.055, $p < 0.001$; Table 4: B = 0.272, SE = 0.061, $p < 0.001$; Table 5: B = 0.197, SE = 0.069, $p < 0.01$). Furthermore, among the subsample of respondents with public contact, the retired seem to report a less tolerant attitude toward community mental health care compared to the working population (Table 4: B = −2.141, SE = 0.742, $p < 0.01$).

Discussion

As the success of the deinstitutionalization movement is dependent on an accepting host community, public opinion about community mental health care should receive greater scientific attention. Using data from the 2009 survey "Stigma in a Global Context—Belgian Mental Health Study", we consider the attitude of the general Belgian population. Our study specifies the association between contact and attitudes toward community mental health care by means of comparing several types of contact with a different degree of intimacy and by means of considering characteristics of the contact relationship.

Before we discuss the main findings, we want to draw attention to the limitations and strengths of this study. First, due to the cross-sectional nature of the data, we cannot make any judgment about the causality of the association between contact and attitude change. Selection mechanisms may be at play; for example, people with stigmatizing attitudes will be less likely to be friends with people with mental illness. Second, research has suggested that people who come into contact with people with mental illness within the scope of their professional or voluntary work report more positive attitudes toward them (Roth et al. 2000; Rousseau and de Man 1998; Song et al. 2005; Alexander and Link 2003). Nevertheless, this type of contact was not included in our study. Third, although research often considers emotions as moderators of the relationship between contact and attitudes (Angermeyer and Matschinger 1997; Brockington et al. 1993; Corrigan et al. 2003; Rössler et al. 1995), we only examined the independent effects of emotions on the attitude toward community mental health care. Fourth, the study of attitudes has often been criticized because of its tenuous link with behaviour (Fazzio and Zanna 1981; Weiner 1995). However, the meta-analysis of Kraus (1995) refuted this assumption. Petty and Cacioppo (1996) also defended attitudinal research, especially if the attitudes are based on direct experiences, which is the case with contact. Besides, Pinfold et al. (2003) emphasized that the attitude toward community psychiatry can be considered as a proxy measure of planned behavior. Fifth, according to the NIMBY-phenomenon (not-in-my-backyard), people might be tolerant toward community mental health care as long as those mental health care facilities are not located in their own neighborhood (Dear 1992). Nevertheless, we did not control for the presence of a community mental health facility in the respondent's neighborhood, as previous studies found that more than half of the residents were unaware of the presence of a mental health facility in their neighborhood (Dear and Taylor 1982; Rabkin et al. 1984; Repper and Brooker 2007).

Despite these limitations, our findings contribute to the study of attitudes toward community mental health care in several ways. First, compared with the amount of current research linking contact with the general attitude toward people with mental illness (Addison and Thorpe 2004; Hannigan 1999; Kobau et al. 2010; Kolodziej and Johnson 1996; Papadopoulos et al. 2002; Read and Law 1999; Brunton 1997), the number of studies that applied the contact hypothesis to the theme of community mental health care is rather limited (Brockington et al. 1993; Lauber et al. 2006; Reda 1995; Song et al. 2005; Wolff et al. 1996; Taylor and Dear 1981). Moreover, the generalizability of those studies' findings has been restrained by their small and selective samples (e.g., Malvern and Bromgsgrove, Brockington et al. 1993; North London, Reda 1995; South London, Wolff et al. 1996). Second, Belgium is an interesting case to study, considering the fact that the deinstitutionalization movement is advancing at different paces in different countries. Belgium is occupying an intermediate position on the continuum of hospital-based care versus community-based care; the deinstitutionalization process has been implemented in the '90ies, but the country still counts one of the highest numbers of psychiatric hospital beds per 100,000 inhabitants within Europe (Bruffaerts et al. 2004). While a range of countries already provide advanced community mental health care programs (such as the USA, UK and Germany), some 38 % of the countries worldwide have no community based mental

health services at all and still rely on large tertiary institutions as the common form of psychiatric care (Fakhoury and Priebe 2002). Third, the Community Mental Health Ideology-scale is reliable and valid; several studies have extracted a factor related to community mental health ideology when using the CAMI scale (Brockington et al. 1993). Wolff et al. (1996) defined that factor as 'fear and exclusion', while Song et al. (2005) defined it as 'rehabilitation in the community'. Fourth, several studies have mentioned that more attention should be devoted to contact characteristics (Alexander and Link 2003; Couture and Penn 2003; Jorm and Oh 2009; Repper and Brooker 2007). To fill this gap, our study compares several types of contact with a different degree of intimacy and considers a range of characteristics of public and interpersonal contact. Although the amount of explained variance of the models was rather small, this is not uncommon (Alexander and Link 2003).

The first main finding of this study is that the level of tolerance of people who had contact with people with mental illness depends on the degree of intimacy of that contact relationship. People who personally received mental health treatment and people who have a family member who has been treated for mental health problems report more positive attitudes toward community mental health care than people with only public contact with people with mental illness. The history of mental health service use is a common predictor of attitudes toward help seeking, as it is obvious that help seeking beliefs change after having received mental health treatment themselves. Furthermore, the fact that stigma processes are less powerful among family members of people with mental illness has been recognized by labeling theorists (Link et al. 1989). On the contrary, friends or acquaintances may be more apt to accept the negative stereotypes applied to people with mental illness due to their lower degree of intimacy of contact, since they are peripheral network members or have weaker ties (Alexander and Link 2003; Couture and Penn 2003; Perry 2011). Next to this, no difference is found between people with public contact and people without contact. A possible explanation might be that public contact does not fulfill the preconditions of the contact hypothesis; public contact is neither personal, nor voluntary, nor intimate or repeated over time. We conclude that contact with a high degree of intimacy is necessary to disconfirm the negative stereotypes associated with people with mental illness. In other words, our results support the causation-hypothesis that contact has an impact on stigmatizing attitudes. As involuntary types of contact (public contact and having a family member who received mental health treatment) are also associated with the attitude toward community mental health care, the selection-hypothesis, stating that people with stigmatizing attitudes are less likely to have contact with people with mental illness, does not hold. Besides, a range of experimental studies adhere to this line of thinking (Link and Cullen 1986; Desforges et al. 1991; Reinke et al. 2004), next to two studies using path analysis (Corrigan et al. 2001a; b) and a literature review of Kolodziej and Johnson (1996).

The second main finding of this study is that taking the characteristics of the contact relationship into account is important to develop a deeper understanding of the association between contact and attitudes toward community mental health care. On the one hand, a threatening encounter with a stranger who appears to have a mental health problem, is associated with a more hostile attitude toward community mental health care. As the frequency of public contact does not seem to have an impact on the attitude toward community mental health care, it appears that even one encounter with a stranger can have detrimental consequences, as stated by Wallach (2004). This finding is in accordance with the research of Corrigan et al. (2001) that demonstrated that the perception of dangerousness leads to the belief that people with mental illness should be institutionalized. On the other hand, we found that some contact characteristics are related to more positive attitudes toward community mental health care. Pity appears to be associated with more tolerant attitude toward community mental health care. We explain this finding by the fact that people who assume that a person with a mental illness has little control over his or her illness adopt a more sympathetic orientation toward community mental health care (Corrigan et al. 2003). Nevertheless, this finding is in contrast with the research of Addison and Thorpe (2004), who dispute the finding that feelings of pity are indicative of a positive attitude toward people with mental illness. Next to this, our results state that people who experienced that a mental illness can be treated effectively are more tolerant toward community mental health care. This finding supports the proposition of Monahan (1992) who stated that emphasizing the efficiency of mental health care alleviates public anxiety.

In sum, this study underlines that the assumption that intergroup contact leads to more positive attitudes toward people with mental illness should not be taken for granted. This study reveals that not the mere presence of contact is associated with less stigmatizing attitudes, but that only contact relationships with a high degree of intimacy, contact relationships associated with positive emotions and contact relationships with a good prognosis are associated with more tolerant attitudes toward community mental health care.

Finally, it would be interesting to study the association between contact and social distance toward people with mental illness in a cross-national perspective, since the deinstitutionalization process has been implemented in

various ways. A wave of criticism appeared in the literature regarding the deinstitutionalization movement, as people with mental illness who do live in the community, often live in sheltered environments with limited social contacts (Fakhoury and Priebe 2007). Bitter et al. (2009) speak about de-hospitalization and Kelly and McKenna (2004) claim that trans-institutionalization or re-institutionalizations has occurred in some countries. The former refers to the fact that the decline in institutional care is not always complemented by the establishment of sufficient alternative community mental health care facilities. As a result, people with mental illness might end up without treatment, homeless or even imprisoned (Eikelmann 2000; Lamb and Bachrach 2001). The latter term illustrates that the placement of people with mental illness merely shifts from one isolated context to another instead of facilitating social inclusion; the decrease in conventional psychiatric beds is supplemented with an increase in supported housing or forensic beds as worst-case scenario. In countries in which the afore-mentioned scenarios have occurred, the visibility of people with mental illness might lead to more social distance instead of social reintegration. Future research should investigate this hypothesis to inform mental health policy.

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