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The effects of brief indirect contact on mental illness stigma: Preliminary evidence from an Italian vocational rehabilitation center

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Abstract.
BACKGROUND: Contact has been shown to be one of the most effective methods to reduce mental illness stigma, but prior research on the contact hypothesis has been limited by reliance on retrospective data and forced, laboratory-based contact rather than in community settings.
OBJECTIVE: The primary goal of this prospective study was to use a vocational rehabilitation center to test the effect of naturally occurring brief indirect contact with a mentally ill sample on mental illness stigma. We also examined correlational patterns among participants' perceptions about treatments for mental illness with mental illness stigma.
METHODS: Data were collected at an Italian vocational rehabilitation center using a repeated measures design. A total of 19 participants completed baseline surveys. A subset of 10 participants who also completed post-contact surveys was used to test the contact hypothesis.
RESULTS: Analyses showed that positive affect increased from pre-contact ($M = 3.87$, $SD = 1.10$) to post-contact ($M = 4.53$, $SD = 0.89$; $t(9) = -2.74$, $p = 0.023$), and negative affect decreased from pre-contact ($M = 2.83$, $SD = 0.74$) to post-contact ($M = 2.23$, $SD = 0.70$; $t(9) = 3.25$, $p = 0.010$).
CONCLUSION: Results show preliminary evidence that vocational rehabilitation center-based contact increased positive affect, and decreased negative affect, towards individuals with mental illnesses in community members.

Keywords: Mental illness stigma, vocational rehabilitation, affect, social distance

1. Introduction

In the United States, 1 in 4 adults suffer from mental illness with thousands more undiagnosed (Kessler et al., 2005). In 2014, an estimated 18.1% of all U.S. adults suffered from any mental illness, not including substance use disorders (Center for Behavioral Health Statistics and Quality, 2015). Mental disorders are also common amongst adolescents: just over 20% of children ages 13 to 18 in the United States suffer from a seriously debilitating mental disorder, currently or at some point during their life (Merikangas et al., 2010). Thus, mental illnesses represent widespread health conditions that exert great direct and indirect effects on a large portion of the population.

Mental illness impairs an individual's daily functioning and sense of well-being. Societal attitudes

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towards these individuals may exacerbate their difficulties, adding additional barriers to the financial, regional, and linguistics barriers they already face in seeking care (Young et al., 2001). In particular, mental illness stigma can lead mentally ill individuals to hide their problems, stop seeking treatment, or prematurely terminate treatment due to feelings of shame and disgrace, a fear of discrimination, and beliefs that their treatments are neither effective nor delivered in a respectful manner (Henderson et al., 2013; Clement et al., 2015). Amongst adolescents, only 30% seek out mental health care; and their decision to do so is significantly influenced by the opinions of their peers and elders (Moses, 2010; U.S. Department of Health and Human Services, 1999, 2000). This stigma surrounding mental illnesses often results from false information and stereotyping, and has been linked with decreased self-esteem, poor health outcomes, and a lower quality of life (Link & Phelan, 2001).

In many cases, the consequences of mental health stigma are described as worse than those of the mental illness itself (Thornicroft et al., 2016). Stigma and prejudice often result in discrimination that can limit opportunities for these individuals, through unemployment or reductions in job prospects, limited access to necessary health care resources, and an increased burden in their personal relationships and work abilities (Thornicroft, 2006). Family and romantic relationships are particularly vulnerable to the effects of this stigma and discrimination, especially in societies where the family network is central, as they are often the first line of support. Stigma by association can lead to discrimination against the entire family, feelings of shame, economic troubles, and diminished marital and work prospects for family members (Hinshaw, 2006). This can in turn lead to negative feelings, and actions, towards the individual suffering from a mental illness, thereby creating a cycle of discrimination. With regards to healthcare, individuals with mental illnesses often receive unequal treatment for physical conditions, which is likely to be a contributing factor to the increase in morbidity and premature mortality found in this population (Thornicroft, 2011, 2013). Thus, the consequences of mental health stigma can be quite severe and pose added burden to individuals already struggling to manage their mental illness. Better understanding mental health sigma – and developing approaches to counter it – may improve the lives of individuals suffering from mental illness.

One particularly detrimental stereotype that arises from mental illness stigma is that individuals with mental illnesses are dangerous, unstable, and unable to keep a steady job (Corrigan et al., 2003). The unfortunate effects of these stereotypes is that they interfere with employment opportunities for these individuals and their ability to financially support themselves, and may also deprive them of what are potentially valuable sources of social support and self-esteem. This is a real loss, as employment has been shown to have therapeutic benefits for the mentally ill individual. For example, Bond and colleagues (2001) looked at the effect of employment on the quality of life, self-esteem, and symptom reduction in 149 individuals with severe mental illnesses. Individuals in the competitive employment condition showed greater symptom reduction, and improved quality of life and self-esteem compared to the participants in the minimal work and no work conditions (Bond et al., 2001). These results support past research showing that employment can have non-vocational benefits (Mueser et al., 1997). Employment provides individuals with daily routines, purpose, and social integration, thereby adding value to their lives. Indeed, other researchers have argued that denying individuals with mental illnesses the opportunity for employment is akin to denying them a basic human right (Whitley & Henwood, 2014).

For some individuals with severe mental illnesses, maintaining a steady job without an appropriate support system is incredibly challenging. In these cases, vocational rehabilitation provides the training, support, and guidance needed for successful employment entry. It has been associated with improved employment rates and increased income for individuals with schizophrenia (Cook & Razzano, 2000). Vocational rehabilitation has been shown to improve self-esteem, reduce symptoms, and help individuals establish a sense of value in society (Bond et al., 2001). Furthermore, these centers are often self-supporting. For example, a center that offers art and writing classes for the members may sell the products produced, with the profits used to sustain the program. This would have the added benefit of increasing mental health awareness in the community. We further contend that vocational rehabilitation programs can provide an excellent opportunity to combat mental illness stigma by promoting contact in a naturally-occurring way between mentally and non-mentally ill communities.

Education and contact are the two most well documented methods for reducing mental illness stigma. The two are most powerful when used together, known as the knowledge-contact approach, with contact being the essential component in changing

stigmatizing attitudes and discrimination. Education alone has not been shown to be efficient (Pinfold et al., 2005; Pinto-Foltz et al., 2011). Survey studies looking at retrospective contact (i.e., contact that occurred in the past) have shown that contact with mentally ill persons is associated with decreased levels of fear and stigma (Link & Cullen, 1986). Lab studies examining the effects of forced contact (i.e., listening to an adult with severe mental illness speak about their experiences) and education (i.e., listening to lectures debunking myths about mental illness) have found that both methods reduce negative affect and decrease desire for social distance from the mentally ill (e.g., Corrigan et al., 2001).

Knowledge-contact programs have been designed to improve mental health literacy and reduce mental health stigma. One example is the *In Our Own Voice* program developed by the National Alliance on Mental Illness which involves lectures and discussions facilitated by two individuals with severe mental illnesses, as well as the showing of psychoeducational videos. Topics include first experiences with mental illness, coming to terms with mental illness, treatment and coping mechanisms, and how to nurture goals and hopes. Studies have found mixed results for the effectiveness of this 90-minute knowledge-contact program. For example, even a shorter version of *In Our Own Voice* has been shown to be more effective at improving mental health literacy and reducing mental health stigma compared to education alone in a sample of 200 (Corrigan et al., 2010), but another study has found that while the program boosted mental health literacy, it failed to reduce mental health stigma in a sample of adolescents, a group particularly susceptible to stigma and shame surrounding mental illnesses (Pinto-Foltz et al., 2011). While education requires only surface-level interaction with the material, constituting a more distal process, contact likely encourages a proximal process for individuals needing to reconcile their pre-conceived notions of the mentally ill with a real-world interpersonal experience that requires more complex processing.

Many countries have implemented comprehensive mental health care programs that encourage both voluntary and forced contact between mentally ill and non-mentally ill populations. Italy has one of the most successful systems, as the first country in 1978 to move from a psychiatric hospital-based model for mental health care to one predicated on government-funded community rehabilitation, outpatient centers, and social programs (Burti, 2001). This deinstitutionalization approach allows individuals with severe mental illnesses to contribute to society while interacting regularly with the larger community. Vocational rehabilitation programs are a prime example of deinstitutionalization approaches to mental health care, and provide a fitting opportunity to examine the effects of naturally-occurring contact between mentally ill and non-mentally ill populations on stigma.

1.1. The present study

Prior research on the contact hypothesis has been limited by reliance on retrospective data and forced, laboratory-based contact. Though forced contact can induce short-term changes in perceptions under structured and controlled conditions, the external validity of these findings is questionable and it is difficult to implement at a community level. The present study is the first to test the contact hypothesis using a prospective design to examine change in affect and desire for social distance from individuals with mental illnesses in community members following naturalistic contact of a brief and indirect nature with individuals with severe mental illnesses. The naturalistic contact is facilitated through a vocational rehabilitation service staffed by individuals with severe mental illness in Milan, Italy. We hypothesized that participants would experience increases in positive affect and decreases in negative affect and social distance. We also measured and examined correlational patterns in participants' perceptions of effective treatments for mental illness.

2. Methods

Data were collected in Milan, Italy at the Laboratorio Procaccini (LP), a catering service staffed by individuals with severe mental illnesses in a vocational rehabilitation program that provides catering services to the broader community in Milan on a fee-for-service business model. Participants were community patrons who booked the LP for events, including business luncheons and private parties. All participants were aware that the LP is partially staffed by mentally ill individuals, and some had face-to-face contact with mentally ill staff upon their visit to the center. The majority of participants did not come face-to-face with LP staff in the course of ordering and receiving the catered food; thus, their contact was primarily indirect through the use of the service.

2.1. Participants

Between July and December 2013, the LP director recruited 37 LP customers as participants after they had booked a catering event. Of these, 27 attempted to respond to the pre-contact (baseline) questionnaire. Data from 8 participants were discarded due to technical malfunctions of the questionnaire website or incomplete data, resulting in a total of 19 participants (3 male, 16 female), ages 27–83 (M = 43.4, SD = 13.6) who completed the baseline questionnaire. Of these, 10 individuals (1 male, 9 female), ages 28–83 (M = 47.6, SD = 16.7) completed both the pre- and post-contact questionnaires. Participation was voluntary; no compensation was provided.

2.2. Design

We used a repeated measures design with two time points, baseline and post-contact. Results were analyzed using paired sample *t-test*s and bivariate correlations.

2.3. Procedure

After orally consenting to participate during recruitment, participants were emailed and asked to complete the online baseline questionnaire during the week prior to their event. In the week following the event, participants were emailed and asked to complete the online post-contact questionnaire, which ended with a debriefing page.

2.4. Measures

Participants completed all questionnaires on Qualtrics, a secure online questionnaire platform widely used in the behavioral sciences. Surveys were translated into Italian by the third author (RBB), who is English-Italian bilingual.

2.4.1. Perceptions of treatments of mental illnesses (POT)

The POT, administered at baseline only and adapted from Magliano et al. (2004), measures perceptions of the helpfulness of 7 treatment option (drugs, involvement of family members, community integration, individual psychotherapy, holistic wellness, rehabilitation therapy, and separate mental hospitals) on a 1 (most helpful) to 7 (least helpful) scale. Thus, individual scores for each of the 7 treatment options reflect the extent to which participants believed them to be helpful.

2.4.2. Affect scale (AS)

The AS, adapted from Graves, Chandon, & Cassisi (2011) and the Attribution Questionnaire-27 (Corrigan et al., 2003), was administered at baseline and post-contact. It consists of 6 items that assess how one would feel interacting with a mentally ill individual. Three positive emotions (supportive/sympathetic, relaxed/calm, patient) and three negative emotions (fearful, nervous/anxious, disgusted) were rated on a 1 (not at all) to 7 (extremely) scale, resulting in mean positive affect and negative affect scores.

2.4.3. Social distance scale (SDS)

The SDS, adapted from the AQ-27 (Corrigan et al., 2003) and Graves et al. (2011), was administered at baseline and post-contact. It measures desired social distance from individuals with mental illnesses (e.g., "It would be best if individuals with mental disorders were separated from the rest of the community") on a 1 (strongly agree) to 4 (strongly disagree) scale.

3. Results

There were no statistically significant differences between the 9 participants who completed only the baseline questionnaires with the 10 participants who completed both the baseline and post-contact questionnaires on demographic measures or any of the main study measures. Of the 19 participants who responded to the baseline questionnaire, 14 (73.7%) had a college degree or higher, while 5 (26.3%) had a high school or GED degree; and 11 participants (57.9%) selected this service because of their desire to support social programs. Regarding beliefs about the best treatments for mental illnesses, participants favored community integration (M = 4.05, SD = 0.97), individual psychotherapy (M = 4.05, SD = 0.91), and rehabilitation therapy (M = 4.00, SD = 0.88). Participants did not favor separate mental hospitals (M = 1.95, SD = 1.18).

Exploratory correlational analyses examined associations among participants' endorsements of various treatments for mental illness. Strong positive associations linked positive attitudes towards community integration with family involvement ($r(18) = 0.578$, $p < 0.05$), holistic wellness ($r(18) = 0.469$, $p < 0.05$), and rehabilitation therapy ($r(18) = 0.714$, $p < 0.01$) as

other treatment options. In general, a belief in the usefulness of drugs signaled a belief in the usefulness of psychotherapy ($r(18) = 0.792$, $p < 0.01$), in line with the Western biomedical model.

Paired samples t-tests tested the study hypothesis that contact with a mentally ill population would increase positive affect, decrease negative affect, and decrease desire for social distance. Analyses showed that positive affect increased from pre-contact ($M = 3.87$, $SD = 1.10$) to post-contact ($M = 4.53$, $SD = 0.89$; $t(9) = -2.74$, $p = 0.023$), and negative affect decreased from pre-contact ($M = 2.83$, $SD = 0.74$) to post-contact ($M = 2.23$, $SD = 0.70$; $t(9) = 3.25$, $p = 0.010$). No significant change was detected for desired social distance ($M = 2.16$, $SD = 0.35$, and $M = 2.37$, $SD = 0.40$; $t(9) = -1.55$, $p = 0.156$.

4. Discussion

This preliminary study examined the effects of brief and primarily indirect naturalistic contact through a vocational rehabilitation center with individuals with mental illness on two kinds of stigma-related phenomena – affective reactions to, and desired social distance from, the mentally ill. Results partially supported the study hypotheses. We found a strong positive influence of contact on participants' affect towards the mentally ill, specifically an increase in positive affect and a decrease in negative affect. These results corroborate past research showing that contact can be a highly successful method for reducing stigma (Link & Cullen, 1986; Corrigan et al., 2001, 2010). This finding is particularly striking given that the contact we observed was primarily indirect and in the form of participants' *knowledge* that the catered food would be prepared by individuals with mental illnesses. The rare occasions of direct contact were brief encounters when participants received food delivery from one of the workers, or when participants came to the center to book a service and casually met workers. Thus, the observed change with regard to participants' affective reactions is quite profound, and suggests that even indirect, fleeting contact can have an ameliorative effect on negative emotional reactions towards the mentally ill.

However, desire for social distance was not affected by this contact. It may be that the desire for social distance is a more distal cognitive process that requires more extensive direct contact and education to change. One study, involving 40 hours of lectures and discussion by health professionals and advocacy groups along with visits to emergency facilities and inpatient psychiatric facilities did show a significant decrease in desire for social distance for the experimental group of law enforcement officers as compared to a control group (Bahora et al., 2008). Perhaps the brief primarily indirect naturally-occurring contact that we studied was not strong enough or prolonged enough to make an impact on desired social distance.

Naturalistic contact through vocational rehabilitation programs seems particularly effective as it offers benefits to both parties. It provides a space for the mentally ill to contribute to society despite their illnesses, increases their success in the employment market, and is associated with an improved quality of life (Bond et al., 2001). For the wider community, it encourages both direct and indirect contact, allowing non-mentally ill community members to reflect on and work through their biases, thus further enabling greater inclusion of individuals with mental illnesses (Corrigan et al., 2001). Increasing indirect contact through vocational rehabilitations, in a similar model to the LP in Milan, would allow community members to engage with products made by mentally ill individuals and would allow them to see that these individuals may potentially be competent, stable, capable of holding down a job, and producing quality goods. This change in mentality can then pave the way for further contact, increased employment of individuals with mental illnesses, and decreased stigma.

Though not the first study on the effects of prospective contact, the current study is unique in using a prospective design to test the hypothesis that limited amounts of naturally occurring, short-term, mostly indirect contact can positively impact people's affect towards individuals with mental illnesses. Studies of retrospective accounts of contact with mentally ill populations and subsequent changes in perceptions, while informative, are limited by recall and response biases. With a prospective design, we limit such biases and can more confidently conclude that the observed changes are due to the contact itself. The baseline and post-contact questionnaires were completed within two weeks of one another. Thus, the likelihood that the observed changes in affect were due to contact with the LP workers is very high. In addition, the current study has high ecological validity given the naturalistic nature of the data that capitalized on community participants.

Exploratory correlational analyses also indicate that supportive attitudes towards rehabilitation therapy are linked with other non-medical psychiatric treatments, such as involving the family with community integration and holistic wellness. Rehabilitation counselors and directors of rehabilitation centers may wish to prioritize discussions of community integration and involvement by family members in their work with patients, as part of a more holistic treatment plan for patients. Certainly, the important role of obtaining vocational skills and successful employment can be cognitively framed for patients as being more than a source of income, but also an opportunity to expand one's social support network, draw confidence and satisfaction from engaging in meaningful work, and contribute to society. Efforts to make the larger community aware (and a participant) of vocational rehabilitation centers are key, as this research and others show, to lower mental illness stigma, help individuals with mental illnesses integrate into the community, and bolster the success of such programs.

We note a few significant limitations. First, this study had a very small sample size and restricted power, due partially to technical challenges and the difficulty of recruiting participants using a community framework. Thus, the results from this pilot study should be understood conservatively, and further research using larger samples is needed. Nevertheless, that we found such strong findings in spite of this limitation attests to the strength of the phenomena observed. Brief, largely indirect contact exerted a strong influence on participants' affective reactions. A larger sample rendering greater statistical power may uncover similar findings for desired social distance. Certainly, future studies should aim to recruit larger samples, but we believe that these preliminary data introduce important insights about the potential for vocational rehabilitation centers and other community integration initiatives to directly impact public stigma against individuals with mental illness and to improve the quality of life for individuals living with a mental illness. Second, these findings come from one specific cultural context. Comparative studies with other contexts are needed to understand the role of cultural perceptions towards mental illness. Finally, we observed these changes during a 2-week period. Further work using multiple timepoints should investigate whether this kind of contact has lasting effects.

While larger programs that incorporate extensive education and direct contact appear to create observable changes in people's desire for social distance from and affective reactions towards those with mental illnesses, they can be costly, time-consuming, and limited in their accessibility to the wider community. Increasing indirect contact, particularly through vocational rehabilitation programs such as those in Italy, could increase accessibility while also employing large sectors of the severely mentally ill population. As the current preliminary study shows, it only takes a limited amount of contact to significantly improve people's affective emotion towards individuals with mental illnesses. Repeated small amounts of positive contact, with an additional educational component, could make a significant difference in the way this population is perceived and treated, thus leading to a greatly improved quality of life.

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Conflict of interest

The authors have no conflict of interest to report.

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