The Effects of Imagined Versus Actual Contact With a Person With a Diagnosis of Schizophrenia

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The Effects of Imagined Versus Actual Contact

with a Person with a Diagnosis of Schizophrenia

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Word Count = 4426 (abstract and main text only)

Abstract

Intergroup contact has been demonstrated to reduce prejudice toward outgroups under the right conditions, however real contact experiences are often difficult to arrange. Imagined contact may be an alternative. The current study randomly assigned participants to imagine or to have real contact with a person with a diagnosis of schizophrenia. Results demonstrated that both imagined and real contact had positive effects on attitudes toward people with schizophrenia, as compared to the effects of imagined and real interactions with an age-matched control person. We discuss the strengths and limitations of imagined contact interventions with an eye toward future research. (98 words)

KEYWORDS: intergroup contact; mental illness; stigma; prejudice; imagined contact; attitudes

The Effects of Imagined Versus Actual Contact with a Person with a Diagnosis of

Schizophrenia

Extensive research on the contact hypothesis has confirmed that intergroup contact

works to combat prejudice. Pettigrew and Tropp's (2006) meta-analysis of over 500 studies

has shown that there is a fundamental, robust, and positive impact of contact on intergroup

attitudes regardless of the out-group, age, geographical area, or contact setting. Despite this

evidence, there may be practical constraints on the incorporation of contact into interventions.

Most obviously, from a practical standpoint, it may be difficult to engineer real contact

between members of the majority group and stigmatized people, especially when they are

from a segregated or low frequency group (Crisp, Stathi, Turner, & Husnu, 2008).

Fortunately, one significant and recent development in contact research is the finding

that people need not to have actually experienced contact with the outgroup themselves to

develop more positive intergroup attitudes (Turner, Crisp & Lambert, 2007). For example,

Wright, Aron, McLaughlin-Volpe, and Ropp (1997) showed that respondents who knew at

least one in-group member with an out-group friend reported less prejudice toward that out-

group than those who didn't know anyone with out-group friends. Furthermore, Turner et al.

(2007) found that simply imagining contact with members of an out-group improved attitudes

and reduced perceptions of out-group homogeneity. Moreover, studies have shown that

imagined contact can improve not only explicit, but implicit, attitudes (Crisp et al., 2008;

Turner & Crisp, 2010). This is important because it refutes the notion that imagined contact

effects on intergroup attitudes may be a by-product of demand characteristics and other

biases resulting from participants guessing what the task is supposed to measure and

providing a socially desirable response.

Research on imagined contact has only recently begun to explore its effects on

perceptions of individuals with a mental illness, a group to which considerable stigma is

attached (for reviews, see Hinshaw & Stier, 2008; Jorm & Oh, 2009). West, Holmes and

Hewstone (2011) investigated the effects on attitudes towards people with schizophrenia.

They argued that imagined contact with a person with schizophrenia may result in different

experiences from imagined contact with other outgroups previously investigated (i.e.

homosexual or elderly people) due to the specific misperceptions people may hold about

people with schizophrenia (e.g., that they are dangerous; Link, Cullen, Frank, & Wozniak,

1987). Nevertheless, West et al. demonstrated that imagined contact with a person with

schizophrenia did result in less intergroup anxiety and more positive attitudes towards the

group. Moreover, this finding was only evident when the imagined contact experience was

positive; when imagined contact was manipulated to be neutral, attitudes did not change and

intergroup anxiety actually increased.

Crisp et al. (2008) suggested that a minimal instructional set is sufficient to produce

the desired imagined contact effect on attitudes, as long as the tone is positive (as argued by

Allport, 1954, and Pettigrew, 1998, for face-to-face contact interventions). The basic

instructional set they used was very simple, "We would like you to take a minute to imagine

yourself meeting [an out-group] stranger for the first time. Imagine that the interaction is

positive, relaxed, and comfortable" (Crisp et al., 2008). Nevertheless, Husnu and Crisp

(2010a) recently used an enhanced version of these instructions, reporting that it boosted the

effects of imagined contact on subsequent attitudes.

A potential drawback of imagined contact interventions might be that they do not

have as powerful effects as more direct forms of intergroup contact (Turner et al., 2007).

Direct experiences have been shown to generate stronger attitudes about an issue than

indirect experiences (Fazio, Powell & Herr, 1983; Stangor, Sullivan & Ford, 1991). Given

that imagined intergroup contact is much less direct than actual intergroup contact, it would

be reasonable to assume it to have a weaker effect on intergroup bias. We know of no research that has of yet directly compared imagined contact and actual contact.

The principal aim of this study was therefore to compare imagined contact and actual contact to examine their relative effectiveness in producing more positive intergroup attitudes towards people with a diagnosis of schizophrenia. Both contact interventions were designed as brief informal interactions with a "new person". Disclosures of mental health status occurred naturalistically in the context of the conversation (either face-to-face or imagined). Equal status was maintained between parties and the interaction was sanctioned by the researcher's legitimate authority (in line with conditions established for successful intergroup contact by Allport, 1954). We hypothesised that individuals who engaged in direct contact with an individual with schizophrenia, or simply imagined such contact, would display an increase in positive attitudes towards people with schizophrenia, as compared to participants who engaged in direct or imagined control interactions with another person, age- and gender-matched to our confederate with schizophrenia. We expected that the size of the effect for imagined contact on improving attitudes might be smaller than that for direct contact, as suggested by Turner et al. (2007), but that both interventions would work to reduce stigma.

Method

Participants

Participants were recruited from a registry into which Australian university students volunteer themselves to be contacted by researchers to participate in psychology studies. All participants were currently studying helping professions (e.g., psychology or nursing). Individuals who self-reported a high level of familiarity with people with severe mental illness were excluded from the study, as were those who reported having a mental illness themselves. The final sample consisted of 97 participants (4 males, 93 females) with ages ranging from 18 to 39 years ($M = 20.14$, $SD = 2.89$).

Measures

Familiarity. In the pretest, participants were asked to rate how familiar they were with 'people diagnosed with a severe mental illness' using a rating scale from 1 to 10 (1 = not at all familiar, 5 = moderately familiar, 10 = extremely familiar). Only participants who scored 7 or below were invited to participate in the study (final sample M = 3.10, SD = 2.00); this resulted in approximately 24% of the pre-test sample being excluded from the study.

Stigma measures. The stigma measures described below were implemented in both pre-test and follow-up surveys.

Dangerousness Scale (Link et al., 1987). The Dangerousness Scale consisted of eight statements about whether people with schizophrenia are likely to be a danger to others (e.g., "although some patients with schizophrenia may seem all right, it is dangerous to forget for a moment that they are mentally ill"). Participants rated each item on a 5-point scale from 1 = "strongly disagree" to 5 = "strongly agree". The items were interspersed amongst distractor items which focused on other social groups. Relevant items were reverse-scored to reflect higher levels of perceived dangerousness. The eight items were averaged to produce a scale score (α = .82).

Affect Scale (Penn, Guynan, Daily, Spaulding, Garbin, & Sullivan, 1994). The Affect Scale is a semantic differential scale comprised of ten opposing pairs of adjectives pertaining to emotions, for example, "pessimistic-optimistic", "calm-nervous", and "fearful-confident". Participants rated each adjective pair on a 7-point scale (neutral = 4) with the most extreme responses (i.e. 1, 7) reflecting the strongest emotions pertaining to the adjective at either end of the scale, according to how much they anticipated experiencing each emotion if they were to interact with a person with a diagnosis of schizophrenia. Items were reverse scored to ensure that higher scores on the scale reflected greater negative affect. Items were averaged to create scale scores (α = .72).

Social Distance Scale (Link et al., 1987; Penn et al., 1994). The Social Distance Scale was originally comprised of seven questions that referred to potential interactions with a hypothetical individual with mental illness. Participants rated their willingness to participate in interactions with a person with schizophrenia on a 5-point scale (1 = "strongly unwilling" to 5 = "strongly willing"), ranging from working at the same job or being a next-door neighbor to having their child marry someone with this diagnosis. Two additional university-relevant social distance items were included for this study, targeting willingness to be in a class or club or to be taught by a person with schizophrenia. All items were reversed scored to ensure that higher scores were representative of greater levels of distancing. A total score was obtained by averaging the 9 items ($\alpha = .91$).

Procedure

Each participant first completed an online pre-test followed by a single experimental session which occurred 2 to 4 weeks later, the delay being designed to reduce the prominence of the pre-test measures by the time the experimental session was held.

Pre-test survey. Participants were contacted via email and invited to participate in a study "investigating the processes involved in meeting a new person" in return for entry into a prize draw to win a $50 voucher. Participants reported their age, sex, university course, and whether they were a member of several social groups (including indigenous Australians, international students, people with physical disabilities, and older students). Participants also reported whether they had been diagnosed with a mental illness and their level of familiarity with people with a severe mental illness and with members of the other social groups. Participants then completed the Dangerousness Scale (Link et al., 1987), Affect Scale (Penn et al., 1994) and the Social Distance Scale (Link et al., 1987; Penn et al., 1994) as well as scales assessing attitudes toward the other social groups listed above to dilute the focus on mental illness and thereby disguise the true purpose of the research. We implied that

participants might meet a member of any of these groups (including persons with a mental illness) during the study itself.

Experimental session. Following the completion of the pre-test survey, eligible participants were contacted by phone and asked to come into the laboratory. They were told that some participants would be assigned to have an actual face-to-face interaction with a new person, whereas others would be asked to imagine having an interaction. All participants provided informed consent. Each participant was then randomly assigned to one of four contact interventions groups in a 2 (contact type: actual, imagined) by 2 (contact person: schizophrenia, control) factorial design. Thus, there were two *actual contact* conditions where participants had a face-to-face meeting with either a confederate who had been diagnosed with schizophrenia (experimental group) or an age-matched confederate without a mental illness (control-group) and two *imagined contact* conditions where they imagined having an interaction with either a person with schizophrenia or a similarly aged person who did not mention mental illness.

Actual contact. Participants assigned to the actual contact conditions were introduced to a confederate, a white man in his mid-to-late 30's, at the lab. The researcher asked the participant and confederate to spend 15-20 minutes having an "informal chat" and getting to know each other on the university grounds (e.g. having a snack, going for a walk, sitting on a bench etc.) and then to return to the lab. In the experimental condition, after asking a few questions about the student's studies and interests, the confederate spoke about his background, including that he had been given a diagnosis of schizophrenia. Thus, the disclosure always occurred toward the beginning of the interaction. The confederate was encouraged not to make mental illness the primary focus of the discussion. In the control condition, the confederate simply engaged in informal conversation with participants. To ensure that the two actual contact conditions were consistent, both confederates received

training in advance and adhered to a common protocol. In lieu of disclosing a mental health history when speaking about his background, the control confederate disclosed other personal details about his education and work history.

Imagined contact. Participants assigned to the imagined contact condition were told that imagining the interaction would take approximately 15 minutes of their time, that they would be guided through the interaction by the researcher, and that their task would be to imagine the interaction as vividly as they could. The imagined conditions began running after the first few actual contact conditions were conducted, so that the script for the imagined conditions could be adjusted based onfeedback provided by the participants and confederates in the actual conditions about the kinds of topics they discussed. A positive sentiment was incorporated to ensure consistency with previous research on imagined contact (Crisp et al., 2008; West et al., 2011). For example, the transcript guided participants to imagine that the interaction was "positive, relaxed, and comfortable" and that they "feel good about the interaction".

The two conditions differed solely in the "self-disclosures" offered by the imagined partner that revealed (or did not reveal) a history of mental illness. Participants assigned to the experimental condition were asked to imagine that the interaction partner mentions that he has "been recruited by the researchers because he has been diagnosed with a mental illness" and that he "discloses to you that he has a diagnosis of schizophrenia". The interaction partner also discloses that "he heard about the study through an organisation called VMIAC (Victorian Mental Illness Awareness Council)" and that he "works as a volunteer consumer consultant". Participants assigned to the control condition were asked to imagine that the interaction partner mentions that he responded to a "job advertisement which was looking for a person to be a research assistant in a study on 'getting to know new

people'". He also discloses that he heard about the study on an internet bulletin board and "currently works at another university as a research assistant employed on a casual basis".

Other than the differences in the self-disclosures outlined above, the scripts for both conditions were identical. First, participants were asked to imagine being greeted by a white man in his mid to late 30's, being asked by the researcher to have an informal chat, walking out of the lab with the person, discussing where to sit, walking to a quiet outdoor area, and commencing a conversation with the new person. After the differences in self-disclosures, all participants, irrespective of the interaction partner, were asked to imagine having a discussion with the new person about their family, their favourite movies, music and hobbies, along with other interests. Finally, all participants were asked to imagine saying goodbye to the person before they opened their eyes.

After the interaction, all participants were asked to complete a survey which included the same mental illness-related measures from the pre-test (Dangerousness Scale, Affective Scale, and Social Distancing Scale) as well as the pre-test items focused on attitudes toward older students, as a distractor.[1] Finally, all participants were debriefed about the true aims of the study and thanked for their participation.

Results

A series of repeated measures ANOVAs was completed to determine how participants' scores on the stigma measures changed across the experiment. We have chosen to report analyses on each dependent variable separately because they represent cognitive, affective, and behavioural components of a stigmatizing attitude. However, they were intercorrelated (ranging from .26 to .73 at pre-test and from .61 to .68 at post-test).

Dangerousness. A 2 X 2 X 2 repeated measures ANOVA was conducted for beliefs about dangerousness across contact type and contact person. The main effect for time was significant, $F(1, 92) = 7.42$, $p = .01$, $\eta^2 = .08$; pretest $M = 2.27$ ($SD = .62$), post-test $M = 2.17$

($SD = .62$). The main effect for contact type was also significant, F(1,92) = 5.79, $p = .$

02, $\eta^2 = .06$, with dangerousness beliefs lower in the face to face condition at both time

points (pretest $M = 2.13$, SD = 0.52; post-test M = 2.00, $SD = 0.46$) than in the imagined

conditions (pretest $M = 2.39$, SD = 0.66; post-test M = 2.30, $SD = 0.70$). The main effect for

contact person was not significant, $F(1,92) = 0.04$, $p = .83$, $\eta^2 = .00$. However, there was a

significant time X contact person interaction, $F(1, 92) = 20.16$, $p < .001$, $\eta^2 = .18$, described

below. The contact type X contact person interaction was not significant, $F(1,92) = .52$, $p = $

.47, $\eta^2 = .01$, nor was the time X contact type interaction, $F(1, 92) = .39$, $p = .54$, $\eta^2 < .01$, or

the three-way interaction, F(1, 92) = 1.87, $p = .18$, $\eta^2 = .02$.

A paired samples t-test indicated that people who interacted (or imagined interacting)

with an individual with schizophrenia significantly decreased their beliefs about the

dangerousness of people with a mental illness, $t(46) = 4.74$, $p < .01$, Cohen's d (for paired

samples = Mdiff/SDdiff) = 0.69. The mean score on dangerousness at pre-test was $M = 2.35$,

$SD = .58$, decreasing to $M = 2.07$, $SD = .56$, at the post-test. There was no difference in

dangerousness beliefs for individuals who had an interaction with our control confederate,

$t(48) = -1.25$, $p = .22$, Cohen's d = -0.18; pre-test ($M = 2.20$, $SD = .65$), post-test ($M = 2.27$,

$SD = .66$). See Figure 1.

Affect. A 2 X 2 X 2 repeated measures ANOVA was conducted for negative affect

experienced across contact type and contact person. The main effect for time was significant,

$F(1, 93) = 21.02$, $p < .001$, $\eta^2 = .18$. On average, all participants reported that they would

experience less negative emotion when interacting with a person diagnosed with

schizophrenia after participating in the study; pre-test $M = 2.97$ ($SD =.72$), post-test $M = 2.61$

($SD = .91$). However, no other main effects or interactions were statistically significant.

Distancing. A 2 X 2 X 2 repeated measures ANOVA was conducted for distancing

across contact type and contact person. The main effect for time was significant, $F(1, 93) = $

13.94, $p < .001$, $\eta^2 = .13$; pre-test $M = 2.35$ ($SD = .50$), post-test $M = 2.21$ ($SD = .56$). The

main effect for contact type was not significant, $F(1,93) = 2.43$, $p=.12$, $\eta^2 =.03$, nor was the

main effect for contact person, $F(1,93) = 0.16$, $p =.69$, $\eta^2 < .01$. Replicating our result for

dangerousness beliefs, the time X contact person interaction was significant, $F(1, 93) = 7.59$,

$p = .007$, $\eta^2 =.08$, and is described below. The contact type X contact person interaction was

not significant, $F(1,93) = 0.43$, $p = .51$, $\eta^2 < .01$, the time X contact type interaction was also

not significant, $F(1, 93) = 3.34$, $p = .07$, $\eta^2 = .04$, and the three-way interaction was not

significant $F(1,93) = 2.08$, $p = .15$, $\eta^2 =.02$.

A paired samples t-test indicated that people who interacted (or imagined interacting)

with a person with schizophrenia significantly decreased their expected likelihood of

distancing, $t(47) = 3.81$, $p < .001$, Cohen's d = 0.55. The mean score on distancing at pre-test

was $M = 2.39$ ($SD = .55$), decreasing to $M = 2.15$ ($SD = .58$) at the post-test. There was no

difference in distancing for individuals who had (or imagined) an interaction with the control

confederate, $t(48) = 0.73$, $p = .47$, Cohen's d = 0.10; pre-test $M = 2.31$ ($SD =.44$), post-test M

$= 2.28$ ($SD =.53$). See Figure 2.

Our analyses suggest that there are no significant differences in the effects of face-to-

face contact and imagined contact with a person with mental illness. Nevertheless, we did

calculate effect sizes for each of these experimental conditions separately, which revealed

that the effects sizes are somewhat larger for face-to-face contact (dangerous d = .98; affect d

= .60; distancing d = .97) than for imagined contact (dangerous d = .51; affect d = .42;

distancing d = .30). A comparison of these effect sizes using the Fisher's z-test confirms that

they are not significantly different in size in the current sample. However, if our study had a

larger sample and thus more experimental power, such differences might have been

statistically significant.

Discussion

Our results support the hypothesis that improvement in attitudes towards someone diagnosed with schizophrenia would occur following an imagined interaction as well as following actual contact of the same duration. Beliefs about the dangerousness of people with schizophrenia and desires for social distance were reduced following both imagined contact and actual contact, as compared to results after interactions with an age-matched control person. The only exception to this pattern was that negative affect felt toward people with schizophrenia was reduced over time across all conditions in our study.Overall, these results replicate the recent findings of West et al. (2011) who also found that imagining a positive interaction with a person with schizophrenia reduced stigmatizing attitudes, but our results also demonstrate that such an intervention can be just as powerful as actual contact.

Given that previous research has shown that direct experiences produce stronger attitudes than indirect experiences (Fazio et al., 1983), the current findings provide new evidence to suggest that this may not always be the case. However, our imagined contact effect may have been enhanced by the administration of a more elaborate and guided approach to the imagined contact task, consistent with recent studies by Husnu and Crisp (2010a, 2010b, 2011) that go beyond earlier studies which took a more minimal approach (e.g., Turner et al., 2007; West et al., 2011). Alternately, actual contact experiences, perhaps particularly with people who have had a mental illness, may not always be smooth and comfortable or typical of usual social interactions, even if they are generally positive. This may reduce contact's effects by affecting levels of known mediators such as reduced intergroup anxiety or increased feelings of empathy (see Pettigrew & Tropp, 2008).

The current findings are consistent with the growing evidence pointing to the benefits of mental simulation in decreasing stereotyping and implicit prejudice (e.g., Blair, Ma, & Lenton, 2001; Stathi & Crisp, 2008; Stathi, Crisp, & Hogg, 2011), however, it is important to

consider this evidence with a grain of salt. Crisp and Turner (2009) suggested that the simulation of contact experiences is unlikely to have as powerful an effect on intergroup attitudes as face-to-face contact and we agree. Although the current findings may suggest that imagined contact is more powerful than expected, there is not enough evidence yet to argue that imagined contact is an equally optimal intervention as real contact. Nevertheless, imagined contact is an inexpensive and practical means of reducing stigma and it may yield benefits when other forms of contact (direct and extended contact) are limited. In social settings where positive contact is not possible because of segregation or lack of opportunity, imagined contact, either on its own or in combination with existing interventions, could provide a simple and practical means for creating attitude change.

To further establish the usefulness of imagined contact, research now needs to examine how long the effects persist. In most studies, attitudes are typically assessed immediately after the imagined contact task, as was the case in the current study. In one exception, Husnu and Crisp (2010b) administered the imagined contact task one week before assessing attitudes and found that imagined positive contact increased Turkish Cypriot participants' willingness to engage in future contact with Greek Cypriots in Cyprus. However, given that imagined contact is less direct than face-to-face contact, we might expect it to also have more temporary effects on intergroup attitudes. A related question focuses on whether repeated imagined contact experiences can boost effects. More significant or stable change in attitudes might be achieved through longer term exposure to imagined contact which may facilitate an internalised process whereby people become less resistant to change and more agreeable to internalising egalitarian norms. Alternately, repeated imagined contact may only provide diminishing returns with actual direct contact the only route to creating further change or cementing positive attitudes. Future research is needed to investigate these issues.

Although our research provides support for the intergroup contact hypothesis, limitations of this study need to be carefully considered. For example, it could be argued that participants in our study were merely responding to demand characteristics telegraphed to them by the use of stigma measures in both pre-test and post-test surveys (although we purposefully sought to disguise the aims of our study by including a cover story and other pre-test and post-test attitude measures). Whereas we can't refute this criticism directly, the wealth of research supporting the stigma-reducing effects of actual contact in Pettigrew and Tropp's (2005) meta-analysis of 515 intergroup contact studies argue for a real effect in that condition. With regard to imagined contact, Turner and Crisp (2010) have recently demonstrated that this kind of manipulated contact can have effects on implicit as well as explicit attitudes (toward Black Muslims and the elderly, in their studies), thereby suggesting an impact that is less controllable than a response to demand characteristics or concerns for social desirability might be.

In addition, as with much research in the area, our study was conducted with university studentswho may have a restricted range of stigmatizing attitudes, different from samples drawn from the wider community (Angermeyer, Matschinger, & Corrigan, 2004; Whatley, 1959). We also made a trade-off between recruiting a large enough sample for the study and risking our predicted attitude change effect by excluding only those participants who rated their familiarity with people who have a serious mental illness in the top quarter of the Familiarity scale, rather than choosing only those participants who claimed no familiarity at all. As such, the current sample may have diluted the effects of contact as some participants' attitudes may have already been positive. Hence contact interventions may yield stronger effects in other samples where more mental illness stigma exists. Alternately, the effects of contact may have been more pronounced in the current sample as it was comprised of people who were younger who may be more open minded and amenable for change (e.g.,

Angermeyer et al., 2004; Jorm & Oh, 2009; Whatley, 1959). Our sample was also almost entirely female; however, neither Pettigrew and Tropp (2006) in their meta-analysis of actual contact studies nor West et al. (2011) in their study of imagined contact with people with schizophrenia found gender to be a significant moderator of contact's effects. Nevertheless, care should be taken when generalizing our findings. Studies that investigate the effects of intergroup contact in broader populations will advance our understanding of how contact, both actual and imagined, works to improve attitudes.

Acknowledgements

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Note

[1]Participants also completed some additional questions of our own devising about their experience, thoughts and feelings that are not reported here.

Figure Captions

Figure 1. Mean scores on dangerousness beliefs across time and across contact person

irrespective of contact type. Error bars indicate 95% confidence interval on the mean.

Figure 2. Mean scores on social distancing across time and across contact person irrespective

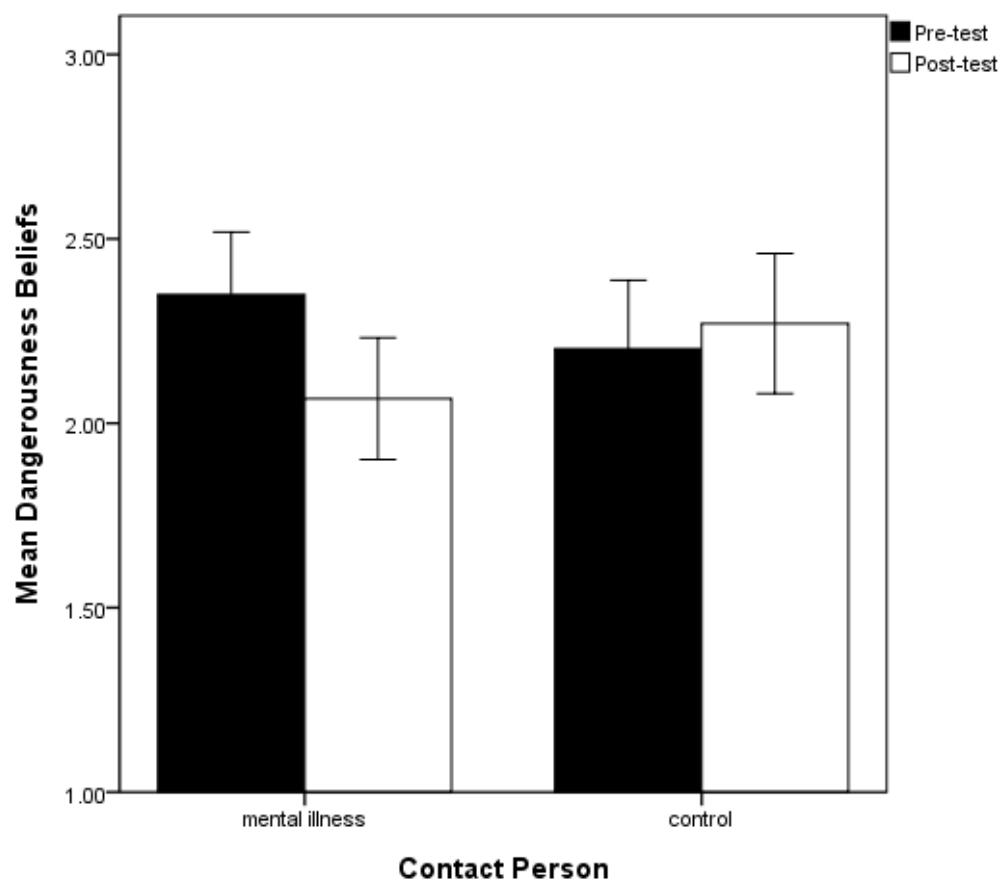of contact type. Error bars indicate 95% confidence interval on the mean.

Figure 1.

Figure 2.