The effects of stereotype suppression on psychiatric stigma

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Abstract

The effects of stereotype suppression on psychiatric stigma were investigated in two studies. In experiment 1, 52 participants were presented with a photograph of someone labeled with schizophrenia and instructed to write a passage describing a day in that person’s life. Half of the participants were instructed to avoid using schizophrenia-related stereotypes in their passages (the stereotype suppression condition). Participants were then presented with a photograph of a different individual labeled with schizophrenia and asked to write another passage with stereotype suppression instructions omitted. The results showed that while stereotype suppression occurred for the first passage, the expected rebound effects were not observed in the second passage. Furthermore, the results were unchanged when participants’ prior experience with persons with mental illness was considered. In a second study, the effects of stereotype suppression on behavior (i.e. seating distance from a person with schizophrenia) were examined in 58 participants. While the stereotype suppression instructions resulted in less stereotypical passages, replicating the results of study 1, no rebound effects on behavior were observed. A non-significant trend was observed whereby previous contact with persons with mental illness was associated with less social distance from someone with schizophrenia. Implications of the findings for reducing psychiatric stigma are discussed. © 2002 Elsevier Science B.V. All rights reserved.

Keywords: Stigma; Stereotype suppression; Schizophrenia; Contact

1. Introduction

Individuals with schizophrenia and other severe mental illnesses are stigmatized by society (reviewed by Corrigan and Penn, 1999; Farina, 1998). Such stigmatization is present in both western (e.g. Germany; Angermeyer and Matschinger, 1997) and eastern societies (e.g. Hong Kong; Chou and Mak, 1998). Furthermore, psychiatric stigma has a number of negative effects on persons with severe mental illness (SMI), such as reduced housing and work opportu-
stigma, with contact effects being especially impressive (Corrigan, et al., 2001; Kolodziej and Johnson, 1996). Unfortunately, the mechanism underlying stigma reduction as a function of contact or education is unknown, although cognitive factors such as recategorization (i.e. from ‘them’ to ‘us’; Gaertner et al., 1990) and changes in attributions (Corrigan and Penn, 1999) are potential candidates.

Attempts to reduce stigma are not limited to education and fostering contact, but can also include strategies for suppressing negative attitudes and stereotypical beliefs regarding persons with SMI (Corrigan and Penn, 1999). Suppression can occur at a more societal level, such as by attempting to reduce negative portrayals of persons with SMI in films and television through public protest (discussed in Wahl, 1995) or at an individual level, by instructing individuals not to consider mental illness stereotypes when encountering persons with SMI. Suppression makes sense at the societal level, as the fewer negative and/or inaccurate depictions of SMI promulgated by the media (e.g. the film Me, myself, and Irene), the less likely that the public will be misinformed about mental illness (Wahl, 1995). However, the utility of stereotype suppression at the individual level is less clear, as untoward rebound effects may occur (Monteith et al., 1998a,b).

Macrae et al. (1994) first reported the paradoxical nature of stereotype suppression in a series of studies. In these studies, subjects were instructed not to use stereotypical information when writing a passage about a day in the life of a ‘skinhead’. Relative to participants who were not given suppression instructions, stereotype suppressors were more likely to respond in a prejudiced manner across a range of attitude and behavioral measures (i.e. a second passage; physical seating distance). Therefore, suppression of stereotypical thinking had the unintended effect of augmenting stigmatization towards a target individual (i.e. the rebound effect). Subsequent research has shown that such rebound effects may even be stronger for high-prejudiced individuals (reviewed in Monteith et al., 1998a,b).

Stereotype suppression has been investigated in response to a variety of stigmatized groups, such as skinheads (Macrae et al., 1994), homosexuals (Monteith et al., 1998a,b), Asian-Americans (Sherman et al., 1997), and African-Americans (reviewed in Monteith et al., 1998a,b). However, there are no published studies that have directly examined whether suppression of mental illness stereotypes leads to rebound effects. Therefore, the purpose of the series of studies described in this article was to examine the effects of stereotype suppression on stigmatization attitudes and behaviors. In particular, we sought to examine whether instructions to suppress stereotypes would reduce psychiatric stigma. If so, a second question was whether such stigma reduction would result in subsequent paradoxical rebound effects. It was hypothesized that although stereotype suppression instructions would initially reduce psychiatric stigma, subsequent rebound effects would be manifest on a second attitude (experiment 1) and behavioral (experiment 2; social distance) test. Finally, because contact with mental illness is consistently associated with reduced stigmatization toward persons with SMI (Penn and Martín, 1998), it was expected that the suppression effects would be strongest for participants with less self-reported contact with mental illness.

2. Method (Experiment 1)

2.1. Participants and design

Fifty two undergraduate students at Louisiana State University participated in the study in partial fulfillment of course requirements. The participants were randomly assigned to one of the two groups: stereotype suppression instructions and no stereotype suppression instructions. The instructions were based on those used by Macrae et al. (1994). Participants were shown a photograph of someone with schizophrenia (discussed later) and were given five minutes to write a brief passage describing a typical day in the life of this person (i.e. ‘standard instructions’). Participants in the stereotype suppression

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1 Data from two subjects were not included in any of the analyses or reported in Table 1. All subjects had been given a pre-test asking them to circle three symptoms that were indicative of schizophrenia (out of a total of 11 various psychiatric symptoms). The correct symptoms were ‘bizarre behavior’, ‘hallucinations’, and ‘delusions’. The two subjects were excluded because they did not circle any of these three symptoms, suggesting that they did not know what was meant by schizophrenia.
Table 1
Demographic characteristics of participants in experiment 1
(*p = 0.05)

<table>
<thead>
<tr>
<th></th>
<th>Group</th>
<th>Stereotype suppression</th>
<th>No stereotype suppression</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age (years)</strong></td>
<td>M</td>
<td>19.88</td>
<td>20.46</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>2.17</td>
<td>2.06</td>
</tr>
<tr>
<td><strong>Education (years)</strong></td>
<td>M</td>
<td>14.07</td>
<td>14.65*</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td>1.05</td>
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<tr>
<td><strong>Ethnicity (n)</strong></td>
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<td>14</td>
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<td>African-American</td>
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<td>6</td>
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<tr>
<td></td>
<td>Asian-American</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Hispanic-American</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Gender (n)</strong></td>
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<td>20</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

condition received the standard instructions with the following additional directions (adapted from Macrae et al., 1994): ‘previous psychological research has established that our impressions and evaluations of others are consistently biased by stereotypes. Thus, we would like you to avoid thinking about the person in the photograph in a stereotypical manner’.

As noted in Table 1, participants in these two groups did not differ in any demographic characteristics with the exception of years of education, which approached statistical significance, $F(1,50) = 4.32, p = 0.05$.

2.2. Materials and procedure

Upon each participant’s arrival in the laboratory (participants were tested individually), she or he was greeted by an experimenter and randomly assigned to one of the experimental conditions. The experiment was entitled ‘Life event construction’ and participants were told that the purpose of the study was to ‘investigate people’s ability to construct life event details from visual information’.

After completing the consent form, participants were given some general measures that assessed attitudes toward persons with mental illness. The key measure was one that assessed the participants’ previous contact with persons with mental illness, the contact scale (CS; Link and Cullen, 1986). The CS comprised seven items that assess various types of contact one could have with persons with a mental illness (e.g. “have you ever known a person who was hospitalized in a mental institution?”). These items are presented in a forced-choice format (‘yes’ or ‘no’). A contact index is computed by summing the items. For the present study, the internal consistency of the CS was 0.76.

Participants were then shown a black and white photograph that comprised a waist-up shot of a man wearing winter clothes and described as someone with schizophrenia. In reality, this individual was a psychologist who had posed for the picture. This photograph, as well as a second one of a different individual (discussed later), had been selected from a larger set of photographs. Prior to the study, the set of photographs had been rated by 26 undergraduates for how ‘mentally ill’ the person looked. The ratings were made on a five-point likert scale anchored by ‘not at all mentally ill’ to ‘extremely mentally ill’. The two photographs selected had been rated at the midpoint of the scale (i.e. ‘moderately mentally ill’; photograph #1 mean = 3.23 and photograph #2 mean = 3.00), so as to present a typical target with schizophrenia rather than one that represented an extreme presentation of the disorder.

Participants were given five minutes to compose an essay describing a typical day in the life of the person in the photograph (with either stereotype-suppression or no stereotype-suppression instructions). After they completed the passage, participants were shown a second photograph of a different individual with schizophrenia (note: also a psychologist posing for the picture) and asked to spend another five minutes constructing a story about a day in that person’s life; standard instructions were used for all participants here. The order of photograph presentation was counterbalanced across all participants.

2.3. Dependent measure

Consistent with previous work in this area (e.g. Macrae et al., 1994), the dependent measure was the level of stereotypicality of the two passages. Two independent raters, blind to the experimental condition,
Table 2
Ratings of passage stereotypicality as a function of task instruction (*p < 0.05)

<table>
<thead>
<tr>
<th>Passage</th>
<th>Suppress stereotype instruction</th>
<th>Standard instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>1</td>
<td>2.71</td>
<td>1.96</td>
</tr>
<tr>
<td>2</td>
<td>3.00</td>
<td>1.47</td>
</tr>
</tbody>
</table>

purpose of the study, and hypotheses, rated each passage on a seven-point Likert scale anchored by 1 ‘not at all stereotypic of persons with schizophrenia’ and seven ‘very stereotypic of persons with schizophrenia’. ‘Stereotypic’ was defined as any phrase, term, or sentence that could be associated with schizophrenia. Therefore, stereotypic could include both pejorative statements (e.g. ‘the person acts suspicious of others’) and statements regarding the person’s psychiatric condition (e.g. ‘he takes his medication’). Because the ratings showed good inter-rater reliability (intra-class correlations: essay 1 = 0.87; essay 2 = 0.70), scores were summed and averaged across the two raters into a single measure of stereotypicality for each essay.

3. Results and discussion

3.1. Stereotype suppression effects

To determine whether the suppression instructions resulted in less stereotypical passages than the standard instructions, we conducted a one-way analysis of variance (ANOVA) on the stereotypicality ratings for passage #1 with instruction condition (suppression instructions vs standard instructions) as the between-subjects variable (Table 2). The results revealed that participants who received the suppression instructions wrote less stereotypical passages than participants who received the standard instructions, $F(1,50) = 11.01, p < 0.01$. These results were unchanged after including years of education as a covariate.

3.2. Rebound effects

A one-way ANOVA was conducted on passage difference scores (i.e. passage 2 ratings – passage 1 ratings) to assess rebound effects. The means for the passage ratings are summarized in Table 2. If a rebound effect were present, we would expect the difference ratings for the suppression group to be significantly greater than for participants who received the standard instructions. The results of the one way ANOVA conducted on the difference scores was not significant, $F(1,50) = 0.474$, ns. Therefore, the expected rebound effects were not observed.

To assess whether previous contact with persons with mental illness had either a main or interactive effect (with the instruction condition) on the passage ratings, a multiple regression (MR) analysis was conducted. The criterion variable was the passage rating difference score, and the predictor variables were the CS, instruction condition (dummy coded: 0 = standard instructions; 1 = suppression instructions), and the CS × instruction condition product. The results of the MR analysis were not significant, multiple $R = 0.238$, $R^2 = 0.056$, ns, indicating that previous contact did not impact the stereotypicality of the participants’ passages.

The results of this study indicate that stereotype rebound effects as a function of stereotype suppression were not present in response to a photograph of someone with ‘schizophrenia’. Reasons for this lack of rebound effects will be discussed in Section 6. However, the results do suggest that using suppression as a strategy for reducing stigma towards persons with schizophrenia has promise. Inspection of the passage means and the analyses indicate that suppression resulted in consistently less stereotypical stories than the standard instructions. Of course, the stability of these suppression effects is unknown. Furthermore, the lower stereotypicality ratings for passage two may have been due to participant expectations; although the suppression instructions were omitted, participants may have thought that they should continue to suppress stereotypical thinking. This
may have occurred even though participants were instructed to write “whatever way you want this time”, if they asked the experimenter for further instructions. These expectation effects may have also obscured any effects associated with having previous contact with persons with a mental illness. To address this issue, experiment 2 sought to replicate the procedure of Macrae et al. (1994) by assessing the impact of stereotype suppression on a behavioral index of stigma rather than on a second writing task.

4. Method (Experiment 2)

4.1. Participants and design

Fifty eight undergraduate students at Louisiana State University participated in the study in partial fulfilment of course requirements; none of these subjects participated in experiment 1. Participants were randomly assigned to one of the two groups: stereotype suppression instructions or standard instructions. As summarized in Table 3, there was a greater proportion of females to males in the standard instructions group relative to the suppression instructions group, \( x^2 = 5.58, p < 0.05 \).

4.2. Materials and procedure

Consistent with experiment 1, participants were shown a photograph of a person with schizophrenia and asked to spend 5 min writing a passage about a typical day in that person’s life, either with or without suppression instructions. To enhance the generalization of the findings, participants were randomly assigned to receive one of two photographs used in experiment 1. However, because target photograph did not exert any main or interactive effects (with the suppression instructions) on the primary dependent variable (i.e. seating distance; discussed below), it was dropped from subsequent analyses. Participants also completed the CS, which had a Cronbach’s reliability coefficient of 0.75 (note: high scores denote greater contact).

Following completion of the passage, participants were asked if they would like to go to another room to meet the person in the photograph (none refused). Consistent with Macrae et al., upon entering the room, the participant saw a long table with a single seat at the head of it and a row of six chairs along the length. A coat and backpack were placed at the head seat and it was explained that the person in the photograph must have stepped out for a moment to the bathroom. The participant was instructed to take a seat until the person returns. Once the participant sat down, the seat number was recorded. The participant was told that the person must have ‘left the building’, obtained their address to send them the debriefing form, and dismissed from the study.

4.3. Dependent measures

As in experiment 1, stereotypicality ratings were obtained for the first passage. ICCs for the two raters was adequate (0.71), therefore, the ratings were summed and averaged across raters into a single score.

Behavioral distance was indexed as the seat-number chosen by the participants. The range of seats was 1–6, with higher numbers reflecting a greater distance from the person in the photograph.

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Table 3

Demographic characteristics of participants in experiment 2 (*p = 0.05)

<table>
<thead>
<tr>
<th></th>
<th>Group</th>
<th></th>
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<tbody>
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<tr>
<td></td>
<td>suppression</td>
<td>suppression</td>
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<tr>
<td>Age (years)</td>
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<tr>
<td>Hispanic–American</td>
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<td>1</td>
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<tr>
<td>Gender (n)</td>
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<td></td>
<td></td>
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<tr>
<td>Female</td>
<td>15</td>
<td>26*</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>12</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

2 Data from nine subjects were not included in any of the analyses or reported in Table 3 because they did not identify at least one symptom associated with schizophrenia, as in experiment 1.
Table 4
Ratings of passage stereotypicality and seating distance as a function of task instruction (p < 0.05)

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Suppress stereotype instruction</th>
<th>Standard instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Passage 1</td>
<td>2.87</td>
<td>1.77</td>
</tr>
<tr>
<td>Seating distance</td>
<td>4.88</td>
<td>1.78</td>
</tr>
</tbody>
</table>

5. Results and discussion

5.1. Stereotype suppression effects

To determine whether the suppression instructions resulted in less stereotypical passages than the standard instructions, we conducted a one-way ANOVA on the stereotypicality ratings for passage #1 with instruction condition (suppression instructions vs standard instructions) as the between-subjects variable (Table 4). The results revealed that participants who received the suppression instructions wrote less stereotypical passages than participants who received the standard instructions, $F(1,56) = 9.68$, $p < 0.01$. Participant gender did not exert any main or interactive effects on the passage ratings.

5.2. Rebound effects

A log transformation with reflection was performed on the seating distance scores because of negative skewness. For ease of interpretation, untransformed means are summarized in Table 4. The results of a one-way ANOVA conducted on the transformed seating distance scores was not significant, $F(1,56) = 1.22$, $p > 0.30$, indicating that rebound effects did not occur. Participant gender did not exert any main or interactive effects on the seating distance variable.

To assess whether previous contact with persons with mental illness had either a main or interactive effect (with the Instruction condition) on seating distance, a MR analysis was conducted. The criterion variable was the transformed seating distance score, and the predictor variables were the CS, instruction condition (dummy coded: 0 = standard instructions; 1 = suppression instructions), and the CS $\times$ instruction condition product. The results of the MR analysis approached statistical significance, multiple $R = 0.337$, $R^2 = 0.113$, $p = 0.088$. Furthermore, the $\beta$ weight for the main effect of previous contact was the only variable to approach statistical significance in the model, $\beta = 0.381$, $p = 0.076$. Therefore, greater self-reported contact with persons with mental illness was associated with choosing a seat closer to the person in the photograph (note: because of the data transformation, a positive $\beta$ weight is in the expected direction). Finally, participant gender did not exert any main or interactive effects (with either instruction group or contact) in the MR analyses.

The results indicate that, although we were able to suppress participants’ use of stereotypes in their written passages, a rebound effect on behavior did not occur. However, there was a non-significant trend for participants with more previous contact with persons with mental illness to choose less behavioral distance from the person in the photograph. Therefore, the pattern of findings regarding contact in this study is similar to that oft-reported in previous research in this area (Kolodziej and Johnson, 1996).

6. General discussion

The findings suggest that instructions to suppress stereotypes toward persons with schizophrenia reduced the amount of stereotypical information included in participants’ written passages. This effect was consistent across both experiments and all essays, even when the prohibition to using schizophrenia-sterotypes had been omitted. This suggests that stereotype suppression may have some promise as a strategy for combating psychiatric stigma, at least in terms of indirect attitudes. However, suppression effects had little impact on the participants’ preferred social distance from a person with schizophrenia. The lack of generalization to behavior may simply be a function of the modest association between attitudes and behaviors, which may be reduced when attitudes
are not strongly held (Kraus, 1995). Thus, suppression effects may not generalize to behavior, suggesting that this strategy may have to be supplemented by other strategies (e.g. education) in order for behavioral changes to occur. The findings from experiment #2 suggest that contact with persons with mental illness may be one such factor, as there was a trend for it to impact desired social distance.

The results of both studies did not replicate the rebound effects observed in previous research (e.g. Macrae et al., 1994). However, it should be noted that rebound effects are not ubiquitous (reviewed by Monteith et al., 1998a,b). Thus, rebound effects may not be present for social groups for whom there are strong social and/or personal norms prohibiting the use of stereotypes (Monteith et al., 1998a,b). This might be especially relevant to schizophrenia and other severe mental illnesses. Efforts to reduce stigmatization towards these groups have been made a public priority by such influential sources as the National Alliance for the Mentally Ill (NAMI), the Surgeon General’s report on mental illness, and the White House (i.e. Tipper Gore). Therefore, participants may be more likely to keep rebound effects in ‘check’ because of growing societal norms against stigmatizing against persons with mental illness.

The two studies had a few limitations, one of which being reliance on undergraduate samples. This limitation, of course, is not unique to this study but is typical of research in social and personality psychology in general (Sears, 1986). However, recent findings from our laboratory reveal that undergraduate students and persons living in the community are similar in their attitudes toward persons with SMI (Penn and Drummond, 2001). Therefore, questions regarding the generalization of the study findings should be empirically evaluated, rather than assumed. Furthermore, most of the research in this area, including that, which has shown rebound effects, has been conducted with undergraduate samples. Thus, our inability to find rebound effects is not likely due to the sample used.

A second limitation is the behavioral measure used in experiment 2. This measure should not be confused for actual interpersonal behavior but can be considered more of a ‘proxy’ measure of social behavior. We used this particular measure in an effort to closely replicate the procedures of Macrae et al (1994), so as to determine whether stereotype suppression had similar effects on the schizophrenia stereotype as it did for the skinhead stereotype. It should be noted that performance on this proxy measure could also be influenced by the physical setting. In particular, the room was arranged so that the chairs furthest from the ‘person with schizophrenia’, were closest to the door. This would have made rebound effects more difficult to observe. However, we chose this seating arrangement for two reasons. First, we did not want to make the participants feel stressed, threatened, or coerced by having the seat of the person with schizophrenia being the first they encountered when they entered the room. Second, we felt that this arrangement would appear more naturalistic to the participants, rather than one in which the head of the table is next to the door. This is clearly an empirical question, though, and one that should be addressed in future work that uses social distance as a behavioral index of stigma. A final limitation concerns the time lag between the initial suppression instructions and subsequent evaluation of rebound effects. In particular, a more realistic research design might have been to assess rebound effects over a longer time frame. The brief time frame used in the present study was selected to replicate previous research in this area (e.g. Macrae et al., 1994). Clearly, however, assessing rebound effects both immediately and following some delay after suppression instructions may have enhanced the ecological validity of the findings.

In conclusion, the findings suggest that suppression of stereotypes of persons with schizophrenia did not result in paradoxical rebound effects and, in fact, may have promised a stigma-reduction strategy. The role of previous contact with persons with mental illness also received some support, reinforcing its potential role in combating psychiatric stigma. These findings now need to be moved out of the laboratory and into the real-world. Hopefully, this will be the next step in research on reducing stigma and mental illness.

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