

What about Female psychology students' Explicit and Implicit Attitudes to Mental Illness?

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Abstract. This study attempted to explore the attitudes among individuals from psychology profession by direct and indirect measures, in order to examine the effect of education to anti-stigma. 49 female psychology undergraduates were recruiting to complete the explicit and implicit attitudes mental illness attitudes with the Social Distance Scale (SDS) and the Implicit Association Test (IAT). The results showed that the implicit effect of IAT was not significant and the scores of SDS were substantially below the midpoints of this scale, and that explicit and implicit measures of mental illness attitudes were unrelated. In our sample, female psychology students did not have significant mental illness stigma in implicit and explicit measures. Our findings suggested that modern professional education may be effective on improving student's attitudes toward mental illness.

1. Introduction

With the significant development of urbanization in China, community services have received extensive attention from the public, researchers and governments. However, mental illness stigma was usually neglected in mental health service process. Previous studies found that prejudice toward mental illness presented a significant barrier both for individuals looking for mental health treatment and for diagnosed persons in the community [1, 2, 3].

It is regrettable that this prejudice was discovered among the public not only, but also community service staff. Lauber et al found that Psychiatrists and the public did not differ in their social distance to mentally ill people and both of them would keep social distance toward people with mental illness [4]. It was found through interview that occupational therapy undergraduates also admitted to having negative views of people with mental illness and feeling nervous and anxious when dealing with them [5]. Undergraduates from helping profession, such as medical, psychology, and social work, are potentials professional staff or volunteers in community mental health service. Despite the plethora of studies about the stigma associated with mental illness, little is known about implicit attitudes of psychology students towards those affected.

Since overt prejudice toward people with mental illness has become less acceptable, indirect expression of negative attitudes may be more common [6, 7]. Teachman et al discovered a low level of explicit bias toward mental illness on semantic differential scales relative to the assessment of automatic negative attitudes [6]. Rüsçh, Corrigan, Todd, and Bodenhausen also found that explicit attitudes of the general public toward people with mental illness have been found to be more positive than implicit attitudes [8]. In China, researchers explored that implicit stigma toward mental illness exists in Chinese students, and had no significant correlation with explicit stigma [9, 10].

2. Question and Objective

Education strategy has been found to be one of the most promising ways for reducing mental illness stigma [11]. To better the education and training of health-care staffs in the reduction of stigmatization and improvement in quality of care, the present study will examine attitudes and stereotypes about persons with mental illness among female psychology student, both that occur within and outside of conscious control.

3. Methods

3.1 Sample

We recruited the participants via study advertisements in professional class of Southwest Minzu University. Forty nine female and right-handed psychology students were recruited. Their age range was 18-22 years (12 freshman students, 20 sophomore students, 17 junior students).

3.2 Explicit attitudes

Participants were asked to complete the Social Distance Scale (SDS), which references to a hypothetical A person who had a mental illness [9, 12]. This measurement evaluates the social distance that individuals are agreeable keeping from the person with mental illness. Items are scored from 1 (*definitely willing*) to 5 (*definitely unwilling*), with higher scores demonstrated a desire to open the social distance from people with mental illnesses.

3.3 Implicit attitudes

Computer-based Implicit Association Test (IAT) was used to measure automatic attitudes toward mental illness in this study. Category labels were “mental illness” versus “physical illness”, and attribute labels were “negative word” versus “positive word” in the IAT. There were six words in each of four types respectively, represented mental illness physical illnesses, negative and positive word [9, 10]. Based on the paradigm of IAT, there were two critical trial blocks, called compatible and incompatible task. The labels “mental illness” and “negative word” were matched at the top left of the screen in the compatible task, while “physical illness” and “positive word” were simultaneously matched at the top right. The labels were switched in the incompatible task, matching “mental illness” with “positive word” (and “physical illness” with “negative word”). Each critical block consisted of 72 classification trials where the first 24 were practice and the remaining 48 were experimental. Participants were required to classify each stimuli word under one of the two paired labels (e.g., “mental illness or negative word” or “physical illness or positive word” in the compatible task) on the top of computer screen. The analytic method of IAT data were accorded to the scoring algorithm developed by Greenwald, Nosek, and Banaji [13]. the D-score of IAT, representing the implicit attitudes toward mental illness, was divided by the standard deviation of all correct response times within the compatible and incompatible tasks. The larger values indicated stronger implicit prejudices toward mental illness.

3.4 Procedure and data analyses

All of participants firstly completed the IAT computer-based tasks, and filled out the aforementioned paper-based measures of explicit stigma. The order of the IAT versus questionnaires was counterbalanced using a Latin square design. The significance threshold was set at .05. Analyses were performed with SPSS (version 17.0 for Windows; SPSS Inc., Chicago, IL, USA).

4. Results

Matched t-tests showed that the response times when mental illness was paired with negative words were not significantly faster relative to positive words in the IAT ($t = -0.70, p > .05$). The D-score of IAT was also computed according to the algorithm developed by Greenwald et al [12]. An independent-sample t-test indicated that the D-score of IAT was not significantly above the zero point ($t = 0.54, p > .05$). In addition, a frequency analysis found that 22.40% ($n = 11$) of the participants had D-scores above 0.30, indicating that these female students had relative neutral implicit attitudes toward mental illness.

Table 1 Response time and D scores of three IAT

Task	Response time (<i>M</i> , <i>SD</i>)	<i>T</i> (<i>P</i> -value ¹)	D-score	<i>T</i> (<i>P</i> -value ²)
Compatible ³ task	691.86, 113.77	0.70, 0.48	0.03	0.54 (0.61)
Incompatible task	704.08, 126.47			

¹ T test to response time between compatible and incompatible tasks; ² T test to D-scores; ³ Compatible task is mental illness paired with negative words, and incompatible task is mental illness paired with positive words.

Table 2 showed the mean values of the five items of the SDS. Besides of the first item (move next door to Li), there were no significant difference between the midpoint (3 point) and the scores of four items. Overall, participants scored below the 15 midpoint of the SDS, indicating some positive attitudes on the Social Distance Scale ($M = 14.20$, $SD = 2.37$; $t = 2.35$, $p < .05$). A frequency analysis showed that about 65.3% scored lower than the midpoints of SDS, indicating that these participants had relative positive explicit attitude to mental illness.

Table 2 The response and scores of SDS in participants

SDS	Response time(M , SD)	T (P -value)
(1) move next door to Li;	2.22, 0.62	8.74, 0.00
(2) spend an evening socializing with Li;	2.96, 0.73	0.39, 0.70
(3) make friends with Li;	3.06, 0.56	0.77, 0.44
(4) start working closely with Li;	2.96, 0.64	0.44, 0.66
(5) have Li marry into their families;	3.00, 0.54	0.00, 1.00
The total score of SDS	14.20, 2.37	2.35, 0.02

To examine the relationship between the explicit and implicit measures, the scores of these measurements were transformed into z-scores before correlation analysis. The results of a bivariate correlation indicated that implicit attitude toward mental illness, as indexed by the IAT, were not related to explicit attitude in female psychology students ($r = 0.02$, $p = 0.88$).

5. Discussion

General consciously evaluated and automatically activated stigma toward mental illness were not revealed by self-report and indirect measures in female psychology students, which conflicts with the findings of past research that used IAT or BIAT among public. Our study did not confirm the pessimistic view that the majority of the participants had negative attitudes toward mental illness. These results may indicate that modern professional training had made a progress in mental illness attitude change relative early profession education. Assisting students to acquire a sound appreciation of the humanness of individuals with psychiatric disorders is one of the most objectives professional education [5]. From the point of practice, the training process of the helping profession, represented by the psychology, are getting more emphasis the professional ethics and humanistic literacy in Chinese higher education institutions. These variations would soften the negative attitudes to mental illness among undergraduates. The strong evidence is that these participants express definitive and positive explicit attitudes to mentally ill person.

Our results indicated that women may have positive overall explicit attitudes toward mental illness, was consistent with past researches in some degree. There are some possible explanations for this finding, including the possibility that women tend to be more goodness, benevolence, and empathy to vulnerable groups [14, 15]. These traits are presumably associated with the less negative attitudes of female psychology students. Therefore, women would have less inhibition about interacting with people with mental illness and consequently have less negative implicit attitudes toward them.

The attenuated correlation between explicit and implicit attitudes in the current study was consistent with past researches [6, 9, 16]. This result may have been partly attributable to measurement or motivational factors, indicating that implicit and explicit attitudes toward mental illness represent distinct constructs. Hence, this relationship between implicit and explicit measures points to the importance of evaluating both automatically activated and self-reported attitudes toward mental illness when considering stigma and anti-stigma.

Despite its implications, select limitations of this study must be acknowledged. First, our data was correlational in nature and did not allow us to draw conclusions about causality. Second, our participants are not representative of the psychology and general helping profession, most notably in terms of gender and sociodemographic variables. Third, the results of our study may be hampered by the experience of

contact with mentally ill people, which were also considered as the effective strategies reducing mental illness stigma. The forth, several implicit measures have been developed to assess evaluative associations with mental illness, for example, Single Category IAT, the go/no-go Association Task, and priming-based measures [7, 9, 17]. Finally, there was no pretest in the current study, limiting the reliability and validity of the research results.

6. Conclusion

These findings suggested that female psychology undergraduates did not have significant mental illness stigma in implicit and explicit measures. Our research provided some further evidence that professional education may be effective on improving student's attitudes toward mental illness, and the large-scale population educational initiatives should make a change and maintains a new balance between popularity and professionalism in order to reduce the negative effects of stigma. Furthermore, countermeasures to reduce stigma should consider how to best integrate explicit and implicit measures so as to track changes in attitudes following interventions.

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8. References

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