

# The Impact of Stigmatization of Mental Disorders on the Public's Self-Perception

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**Abstract:** Objective: This research endeavours to explore whether the public's stigmatization of mental disorders exerts an influence on the public's evaluation of their own mental states. Methods: A questionnaire was designed, and 223 subjects will be recruited via convenience sampling on the Internet as the research participants. The Perceived Devaluation-Discrimination Scale (PDDS), adapted by Zuo Bin from Link's original, will be employed. Based on the scores obtained, the subjects will be categorized into a high group and a low group. Subsequently, the Self-Rating Depression Scale (SDS) will be utilized to analyze the participants' perception of their own mental states within the two groups. Results: In this study, 167 questionnaires were screened for analysis. The mean score of the subjects on the Public Stigmatization Scale was  $(28.74 \pm 5.84)$ , and that on the Self-Rating Depression Scale was  $(46.14 \pm 10.33)$ . The average score of the SDS scale for the subjects in the low group was  $(48.53 \pm 1.24)$ , while that for the subjects in the high group was  $(44.15 \pm 1.00)$ . Conclusion: Groups that are more perceptive of the stigmatization of mental disorder patients in society tend to experience greater psychological stress as a consequence.

## 1 INTRODUCTION

Mental disorders constitute a prevalent and life-threatening ailment (Askelund et al., 2019). Research indicates that the lifetime prevalence rate of depression in China reaches 6.9% (Huang et al., 2019). Additionally, due to the exorbitant costs associated with hospitalization, medication, and nursing care for mental disorder patients, it imposes a substantial burden on both families and society (König et al., 2020). The World Health Organization (WHO) reported in 2022 that mental disorders currently represent the primary cause of disability-adjusted life years, accounting for approximately one-sixth of the global disability-adjusted life years. Concurrently, the stigma prevalent in the mental health domain is perturbing the public's perception of their own mental states (Shi & Jiang, 2023). The negative emotional experience engendered by this stigmatization phenomenon induces certain individuals to endure greater mental stress, and may even impede potential mental disorder patients from seeking assistance (Makowski & Knesebeck, 2023, Zhang et al., 2020, Colizzi et al., 2020).

In 1963, Erving Goffman initially introduced the concept of stigmatization. He explicitly defined

stigmatization as the act of affixing negative labels to an entire group, thereby fostering a negative stereotype (Goffman).

Prior research on group emotions has demonstrated that negative emotions can proliferate directly within groups and progressively shape the collective perception of various matters (Barsade & Gibson, 1998). The stigmatization of certain phenomena emerges during this process (Zeng & Li, 2020). With the advancement of psychology, although the public's cognizance of psychological phenomena has witnessed an increment, the public's stigmatization of mental disorders persists (Maharjan & Panthee, 2019). This pervasive stigmatization phenomenon has given rise to the emergence of stigma among relevant patients, and has also compelled individuals with mild psychological issues to withstand greater psychological pressure (Mukhopadhyay & Mukherjee, 2018).

The concept of stigma was proposed by Corrigan. Corrigan's research bifurcated stigma into public stigma, stemming from the stigmatization phenomenon induced by external negative impressions, and self-stigma, which patients develop towards themselves due to their affliction with diseases (Corrigan, 2004). This study is designed to

investigate the current public awareness regarding the stigmatization of mental disorders and to explore whether public stigma impacts individuals' perception of their own mental states.

## 2 METHODS

### 2.1 Sample

The present research employed a questionnaire-based survey approach, whereby subjects were randomly recruited as research participants on the Chinese Internet through convenience sampling. The inclusion criteria were stipulated as follows: (1) Absence of any prior history of mental disorders; (2) Attainment of an educational level at least equivalent to primary school; (3) Absence of overt intellectual impairments and possession of the capacity to comprehend the scale content. A total of 223 questionnaires were amassed in the course of this study, among which 167 valid responses, characterized by earnest completion, were screened out, yielding an efficacy rate of 75% (rounded to two decimal places).

### 2.2 Tools

#### 2.2.1 Perceived Devaluation-Discrimination Scale, (PDDS)

In this investigation, the Public Stigmatization Scale was utilized to explore the subjects' perception of the degree of stigmatization associated with mental disorders (Zuo & Ai, 2011). This scale was modified by Zuo Bin from the Perceived Devaluation-Discrimination Scale devised by Link et al. (Link et al., 1987) The entire scale adopts a 4-level scoring system and comprises 12 items, with 6 of them being reverse-scored.

#### 2.2.2 Self-Rating Depression Scale, (SDS)

The SDS was deployed in this study to dissect the subjects' perception of their own mental states. This scale is constituted of 20 straightforward interrogatives and employs a 4-level scoring regimen, principally aiming to evaluate the frequency and severity of symptomatology (Xin et al., 2012). Each entry is scored in accordance with the sequence of 1, 2, 3, and 4, such that a greater score corresponds to a higher frequency and severity of symptom manifestation. Among these, 10 questions necessitate reverse scoring, and the average score is adopted for statistical outcomes. It has been empirically validated

that this scale exhibits sound reliability and validity, with a Cronbach's  $\alpha$  coefficient of 0.842 and a test-retest reliability correlation coefficient of 0.809 (Liu et al., 2021).

### 2.3 Statistical Analysis

SPSS 29.0 statistical software was harnessed for data analysis in this study. Quantitative data were expressed in the form of mean  $\pm$  standard deviation. The t-test was implemented for comparisons between the two groups, while multiple linear regression analysis was employed for multivariate exploration, with  $p < 0.05$  serving as the benchmark for statistical significance.

## 3 RESULTS

### 3.1 Basic Information

A total of 167 subjects were screened out. Among them, the age range of the subjects was from 18 to 49 years old, with a mean age of  $(23.04 \pm 3.64)$  years. In terms of gender distribution, there were 100 male cases and 67 female cases.

### 3.2 Grouping Information

Through the analysis of statistical data, the mean PDDS score of all subjects was ascertained as  $(28.74 \pm 5.84)$ . In the current study, based on the PDDS scores of the subjects, 76 datasets with scores below the average were incorporated into the low group, and 91 datasets with scores above the average were incorporated into the high group. According to the scores on the Public Stigmatization Scale, it was revealed that the low group exhibited a more pronounced perception of the stigmatization of mental disorders, whereas the high group manifested a relatively milder perception.

### 3.3 Data Comparison

The average score per item on the SDS scale for the subjects in the low group was  $(2.43 \pm 0.54)$ , and that for the subjects in the high group was  $(2.21 \pm 0.48)$ . The results are presented in the following table.

Table 1: T-test analysis results.

	PDDS (Mean $\pm$ Standard Deviation)		t	p
	low group (n = 76)	high group (n = 91)		
SDS Average Score	2.43 $\pm$ 0.54	2.21 $\pm$ 0.48	2.78	0.01**
* p<0.05 ** p<0.01				

From the above Table 1, the independent samples t-test was employed to explore the disparity in the average SDS score among different PDDS average score groups. It can be discerned from the table that a significant difference ( $p < 0.05$ ) was observed in the average SDS score among different PDDS average score groups. More specifically, a highly significant difference at the 0.01 level ( $t = 2.778$ ,  $p = 0.006$ ) was detected in the average SDS score among different PDDS average score groups. Furthermore, upon detailed comparison, it was evident that the average score per item on the SDS scale for the low group (2.43) was markedly higher than that for the high group (2.21).

### 3.4 Analysis of Factors Influencing Subjects' Perception of Their Own Mental States

#### 3.4.1 Univariate Analysis

The subjects were categorized by age (Li et al., 2024). Employing the independent samples t-test, an exploration was conducted into the disparity in the average SDS score for a single item among diverse age cohorts. It could be deduced that no significant divergence ( $p > 0.05$ ) was manifested in the average SDS score across different age groups. The specific details are presented as shown in Table 2:

Table 2: T-test analysis results.

	Age (Mean $\pm$ Standard Deviation)		t	p
	Above 25 years old (n = 41)	Below 25 years old (n = 126)		
SDS Average Score	2.35 $\pm$ 0.47	2.29 $\pm$ 0.53	0.61	0.54
* p<0.05 ** p<0.01				

Subsequently, the independent samples t-test was utilized to scrutinize the difference in the average SDS score for one item between disparate genders.

The resultant data indicated that a significant discrepancy ( $p < 0.05$ ) prevailed in the average SDS score among samples of different genders. The outcomes are tabulated below:

Table 3: T-test analysis results.

	Gender (Mean $\pm$ Standard Deviation)		t	p
	Female (n = 67)	Male (n = 100)		
SDS Average Score	2.48 $\pm$ 0.50	2.19 $\pm$ 0.50	3.67	0.00**
* p<0.05 ** p<0.01				

It is discernible from the above Table 3 that gender exhibited a significance at the 0.01 level with respect to the average SDS score ( $t = 3.665$ ,  $p = 0.000$ ). Through meticulous comparison, it was ascertained that the average value for females (2.48) was conspicuously higher than that for males (2.19).

#### 3.4.2 Multivariate Analysis

Gender, age, and the average PDDS score were designated as independent variables, while the average SDS score served as the dependent variable for the purpose of conducting a linear regression analysis. The particulars are expounded as shown in Table 4:

Table 4: Linear regression analysis results (n = 167).

	Unstandardized Coefficients		Standardized Coefficients	t□	p□	Collinearity Diagnosis							
	B□	Standard Error□	Beta□			VIF□	Tolerance□						
Constant	3.78	0.34	-	10.99	0.00**	-	-						
Gender	-0.28	0.08	-0.27	-3.62	0.00**	1.04	0.96						
Age	-0.02	0.01	-0.11	-1.46	0.14	1.03	0.97						
PDSS	-0.28	0.08	-0.26	-3.64	0.00**	1.01	0.99						
R 2□	0.15												
Adjusted R <sup>2</sup>	0.14												
F□	F (3,163)=9.80,p=0.00												
D-W Value	1.78												
Note: Dependent Variable = SDS													
* p<0.05 ** p<0.01													

It can be gleaned from the above table that the model formula is: SDS average score = 3.776 - 0.280 \* gender - 0.015 \* age - 0.280 \* PDSS average score.  $R^2 = 0.153$ , signifying that gender, age, and the average PDSS score can elucidate 15.3% of the variance in the average SDS score. Upon subjecting the model to a multicollinearity test, it was ascertained that all VIF values within the model were less than 5, intimating the absence of a collinearity issue. Moreover, the D-W value hovered around 2, thereby suggesting that the model was devoid of autocorrelation and that no correlation subsisted among the sample data, rendering the model satisfactory.

In summary, gender and PDSS score have a significant negative bearing on the SDS score of the subjects, whereas age does not have an impact on the SDS score of the subjects.

## 4 DISCUSSION

Mental disorders, being ailments that imperil human life and safety, give rise to crucial inquiries regarding how to mitigate the morbidity risk among the general populace and augment the prospects of recovery for individuals afflicted with such disorders. These inquiries warrant profound exploration. The stigmatization of mental disorders, manifesting as a phenomenon with the potential to impinge upon the public's self-perceptual faculties and attenuate patients' self-esteem as well as their inclination to seek medical recourse, merits earnest consideration (Li et al., 2023).

In the present study, questionnaires were disseminated with the objective of probing into the

influence of the stigmatization phenomenon on the public's self-perception. Subsequently, 167 questionnaire responses were amassed and meticulously screened. Thereafter, predicated on the PDSS scores of the subjects, they were bifurcated into a high group and a low group. Notably, the mean score per item on the SDS for the low group (2.43) was markedly superior to that of the high group (2.21).

The independent samples t-test was enlisted to authenticate the disparities, and the resultant deduction was that a statistically significant difference ( $p < 0.05$ ) was evinced in the average SDS score among the subject samples of diverse experimental cohorts. It is posited that groups that exhibit a heightened awareness of the stigmatization of mental disorder patients within society are predisposed to endure more pronounced psychological duress when engaged in self-assessment of their mental states.

When the t-test was deployed to dissect gender-based variances, a significance at the 0.01 level was manifested for the average SDS score ( $t = 3.665, p = 0.000$ ). Through comparative analysis, it becomes evident that the mean value for females (2.48) was conspicuously greater than that for males (2.19). Antecedent research has unequivocally established that women are characteristically more prone to detect stigma and the stigmatization of mental disorders, a finding that dovetails with and corroborates the conclusion derived from this study (Feng et al., 2022).

## 5 CONCLUSION

In conclusion, data were collected and analyzed through questionnaire surveys and convenience sampling in this study. The designed survey proved that the stigmatization phenomenon has a negative influence on the self-perception of the public. Furthermore, in the collected research samples, gender has become one of the factors influencing the self-perception of the subjects. It is necessary to call on society to reduce the prejudice and discrimination against mental illness through education, publicity and policy advocacy. By doing so, the incidence rate of mental disorders can be curtailed, and the self-efficacy and propensity of patients with mental disorders to seek medical attention can be enhanced.

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