

# Analysis of the Current Status and Influencing Factors of Family Members' Collateral Stigma in Schizophrenia Patients

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**Abstract:** *Objective:* To investigate the associated collateral stigma of the family members of schizophrenia patients and analyze its current status and influencing factors. *Methods:* The Link Depreciation-Discrimination Perception Scale was used to investigate the status quo of the associated stigma of the family members of 169 schizophrenia patients diagnosed in 4 hospitals in a certain province. The results of the investigation were analyzed and summarized. *Results:* The detection rate of stigma associated with the family members of schizophrenia patients was 72.78%, with a score of  $28.41 \pm 3.92$  points. The main influencing factors were the family member's education level, the patient's illness duration, the family member's occupation, and the family-patient relationship. *Conclusion:* The detection rate of stigma associated with schizophrenia was relatively high. This requires increased attention and appropriate nursing intervention.

**Keywords:** Patients with schizophrenia; Family members' associated disease stigma; Status survey

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## 1. Introduction

Schizophrenia is a mental illness characterized by severely impaired social skills centered on difficulties in interpersonal communication <sup>[1]</sup>. Relevant data showed that the lifetime prevalence of schizophrenia worldwide is 3.8%–8.4% and the lifetime prevalence of schizophrenia in China from 2011 to 2015 was 0.63%–0.94% <sup>[2,3]</sup>. Since schizophrenia patients often have recurrent episodes, the need for long-term repeated treatment adds to greater economic and social pressure. Relevant literature has reported that schizophrenic patients often suffer from social public avoidance, alienation, and discrimination due to the internalization of their shame, which leads to a sense of disease stigma <sup>[4]</sup>. Consequently, family members of schizophrenic patients also experience collateral shame, causing an increased burden of care for primary caregivers. This further affects the quality of treatment and level of recovery for schizophrenic patients <sup>[5,6]</sup>. This study investigated the collateral shame of family members of schizophrenic patients and analyzed its influencing factors in detail to provide a theoretical basis for the development of relevant care measures.

## **2. Objects and methods**

### **2.1. Subjects**

A cross-sectional survey of 123 family members of schizophrenic patients in the Department of Mental Diseases of one mental health center hospital and three general hospitals in our province was conducted by the method of convenience sampling to measure their sense of collateral stigma. Inclusion criteria: (1) more than 18 years of age; (2) family members of patients diagnosed with schizophrenia for more than 1 year; (3) immediate family members of the patient; (4) able to understand the questionnaire correctly. Exclusion criteria: (1) those who refused to participate in this study.

### **2.2. Survey instruments**

Information about the patient's gender, age, education, work status, duration of illness, kinship with the caregiver, and occupation of the patient's family were obtained through a self-designed questionnaire. The family's collateral stigma was measured using the Link Perceived Devaluation-Discrimination Scale (Perceived Devaluation-Discrimination) compiled by Link *et al.* in 1989 and tested by Xu *et al.* <sup>[7,8]</sup>. The Cronbach's  $\alpha$  coefficient was 0.76, and the content validity coefficient was 0.98, which demonstrated good internal consistency. The scale included 2 dimensions and 12 items. The two dimensions are perceived discrimination and perceived devaluation, corresponding to 4 items and 7 items, respectively. The 12 items are on Likert's four-point scale, with 1–4 representing strongly disagree to agree strongly. The scores and the family members' sense of shame are positively correlated.

### **2.3. Survey methods**

The person who distributed the questionnaire was trained, and the questionnaires were distributed at the right time without disturbing the rest of the patients and their family members. Before distributing the questionnaire, the patients were informed of the purpose, significance, and precautions of this survey, and the consent of their families was obtained. This survey was kept anonymous and confidential. After the questionnaire was completed, it was collected and sorted out promptly and any invalid questionnaires (multiple choices and omissions) were removed. A total of 183 points of questionnaires were issued in this study, excluding unqualified and invalid questionnaires, and 169 general information questionnaires were recovered, with a recovery rate of 92.34%.

### **2.4. Evaluation method**

There was no uniform standard for evaluating the guilt of family members of schizophrenia patients. Hence, the results of the current domestic and international related studies were referred to. The midpoint score of 25.0 was used as the standard and a survey score of  $\geq 25.0$  indicated a sense of shame.

### **2.5. Statistical methods**

The SPSS 25.0 software was used to analyze the selected data. Measurement data were expressed as mean  $\pm$  standard deviation and compared using independent *t*-test and ANOVA. Count data were expressed as % and analyzed using the chi-squared ( $\chi^2$ ) test. Results were considered statistically significant at  $P < 0.05$ .

## **3. Results**

### **3.1. General situation of the survey subjects**

A total of 169 family members of schizophrenic patients were included in this study, all between the ages of 18–

69 years old, with an average age of  $34.36 \pm 11.43$  years. There were 74 cases of women and 95 cases of men, of whom 104 cases were married and 65 cases were unmarried. Regarding the education level, 29 cases were illiterate, 32 cases were in primary school, 39 cases were in junior high school, 28 cases were in high school, and 37 cases had a bachelor's degree and above. Eighty-five cases were working, 32 cases were retired, and 52 cases were unemployed. The average duration of the illness was  $7.23 \pm 4.32$  years. As for the relationship of family members with the patients. 41 cases were the patient's children, 67 cases were spouses, 38 cases were the patient's parents, and 23 cases of other relationships. Sixty-three cases of the investigated family members' occupations were staff members, 36 cases were self-employed, 46 cases were laborers, and 24 cases were farmers.

### 3.2. Univariate analyses of the scores of the family members of schizophrenic patients and the stigma associated with the disease

In this survey, the total score of schizophrenia patients' collateral stigma was distributed as an average of  $28.41 \pm 3.92$  points and the scores of the two dimensions were  $16.63 \pm 1.47$  points and  $11.91 \pm 2.23$  points for perceived devaluation and perceived discrimination, respectively.

One hundred and twenty-three cases scored more than 25 points in the survey, which accounted for 72.78% of the total. Family members of patients with schizophrenia were grouped according to age, education level, work status, duration of illness, family occupation, and relationship with the patient, and their collateral shame scores were compared. As shown in Table 1, there was no significant difference in the collateral shame scores of family members of schizophrenia patients regardless of age and working status ( $P > 0.05$ ). When comparing the collateral shame scores of family members of schizophrenia patients with different levels of education, duration of illness, occupation, and their relationships with the patients, the results were all statistically significant ( $P < 0.001$ ).

**Table 1.** Univariate analysis of family members' guilt by association in schizophrenia (mean  $\pm$  standard deviation, [ $n$  (%)])

Demographic characteristics	Cases, [ $n$ (%)]	Link devaluation-discrimination perception scale	<i>F/t</i>	<i>P</i>
<b>Age</b>				
18–29 years old	18 (10.65)	$27.33 \pm 3.64$		
30–39 years old	95 (56.21)	$26.41 \pm 4.24$	6.321	0.214
40–60 years old	37 (21.89)	$26.22 \pm 2.74$		
> 60 years old	19 (11.24)	$26.68 \pm 4.63$		
<b>Educational level</b>				
Undergraduate and above	37 (21.89)	$25.36 \pm 4.31$		
High school	28 (16.57)	$27.94 \pm 3.84$		
Junior high school	39 (23.07)	$28.72 \pm 4.33$	9.755	0.000
Elementary school	32 (18.93)	$29.23 \pm 2.94$		
Illiterate	29 (17.16)	$30.13 \pm 3.64$		
<b>Work status</b>				
Active	85 (50.30)	$27.52 \pm 4.24$		
Retired	32 (18.93)	$26.83 \pm 3.23$	17.924	0.031
Unemployed	52 (30.77)	$26.31 \pm 2.54$		

**Table 1 (Continued)**

Demographic characteristics	Cases, [n (%)]	Link devaluation-discrimination perception scale	F/t	P
<b>Duration of patient's illness</b>				
< 1year	45 (26.63)	27.54 ± 3.27	9.855	0.000
1–5 years	43 (25.44)	29.62 ± 4.33		
6–10 years	52 (30.77)	31.74 ± 3.82		
> 10 years	29 (17.16)	30.83 ± 4.38		
<b>Family occupation</b>				
Employee	63 (37.28)	30.68 ± 4.83	9.281	0.000
Individual	36 (21.30)	29.94 ± 3.65		
Laborer	46 (27.22)	27.36 ± 3.32		
Farmer	24 (14.20)	26.25 ± 4.76		
<b>Relationship with patients</b>				
Child	41 (24.26)	27.56 ± 3.24	2.938	0.035
Spouse	67 (39.64)	28.79 ± 4.41		
Parents	38 (22.49)	28.63 ± 3.27		
Other	23 (13.61)	26.43 ± 2.32		

### 3.3. Multiple regression analysis of factors affecting the collateral stigma among family members of schizophrenic patients

Multiple regression analyses were conducted with the score of schizophrenia patients' family members' collateral shame as the dependent variable and the 6 statistically significant variables in the univariate analysis as the independent variables. As shown in **Table 2**, different literacy levels, the duration of the illness, occupation, and the relationship with the patient's family all had a close relationship with their family members' sense of collateral stigma ( $P < 0.05$ ).

**Table 2.** Multiple regression analysis of the factors influencing the sense of collateral stigma in schizophrenic patients ( $n = 169$ )

Independent variable	B	Std. error	$\beta$	t	P
Constant	26.341	1.251	-	18.246	0.000
Age	0.325	0.041	0.004	2.879	0.063
Literacy	-1.136	0.564	-0.032	8.946	0.031
Work status	0.962	0.371	0.025	4.452	0.054
Duration of patient's illness	1.412	0.913	0.641	3.692	0.001
Occupation of family members	1.245	0.721	0.213	5.127	0.002
Relationship with the patient	0.427	0.127	0.005	2.013	0.000

## 4. Discussion

### 4.1. Higher detection rate of family members' collateral stigma in schizophrenic patients

The present survey showed that the collateral pathogenic shame of family members of schizophrenic patients

was 72.78%, which was consistent with the results of Shi's study <sup>[9]</sup>. The total score of collateral stigmas had a mean distribution of  $28.41 \pm 3.92$ , which was similar to the results of Tang <sup>[10]</sup>. Stigma has been consistently associated with a higher prevalence of mental illness in caregivers <sup>[11]</sup>. Therefore, clinicians treating patients with severe mental disorders should not ignore the psychological problems of caregivers and address this issue promptly. A greater stigma among caregivers of schizophrenia is also associated with the patient's psychopathology. Therefore, effective measures to effectively manage the symptoms of schizophrenic patients are effective measures to alleviate the stigma associated with the disease.

#### **4.2. Factors influencing the family members of schizophrenia patients' sense of collateral stigma**

The results of this survey showed that there were 5 main factors affecting the sense of guilt associated with schizophrenic patients. Different cultural levels are important factors affecting their sense of guilt by association ( $\beta = -0.032, P < 0.05$ ). Family members with a high level of cultural awareness have a higher awareness of schizophrenia and can adjust their mindset. The duration of the patient's illness affects the psychological state of the family members to a great extent, as a long illness duration increases the burden on the family members. Family members engaged in their occupation to a certain extent may also affect the associated sense of shame. Normal office workers often fear discussion about their family members with schizophrenia by their colleagues. This leads to a heightened sense of shame and therefore have a higher degree of concern than those working as farmers and labor workers. Family members who have a close relationship with the schizophrenic patient tend to experience higher levels of relationship stigma, partly because most of these family members are direct caregivers of the patient. Studies have shown that parents have more severe stigma than spouses, siblings, and other relatives of the patient <sup>[12]</sup>.

#### **4.3. Nursing measures to reduce the sense of shame associated with schizophrenia patients' families**

Scientific psychological interventions can be implemented for patients with a high sense of guilt. A WeChat group can be established to evaluate the psychological status of family members through questionnaires. Counselors can also regularly conduct online psychological assistance and educate the patient through videos, audio, and text, and carry out targeted individual psychological interventions for individual family members. In the targeted psychological intervention, the first interview is conducted, where the counselor adopts a supportive attitude and language by listening and showing empathy to establish a good relationship with the family member. With this, family members of schizophrenic patients can understand that it is normal to have a sense of guilt with the associated illness and express their emotions to alleviate the psychological suppression.

### **5. Conclusion**

Family members of schizophrenic patients often have a sense of guilt by association at a relatively high level, mainly influenced by their cultural level, the duration of the illness, occupation, and relationship with the patient. The family members' sense of guilt can be reduced by adopting scientific nursing measures through a professional psychological care team.

### **Disclosure statement**

The author declares no conflict of interest.

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