Asian Nursing Research 13 (2019) 257–263

Contents lists available at ScienceDirect

Asian Nursing Research

journal homepage: www.asian-nursingresearch.com

Research Article

The Mediating Effects of Self-Esteem and Resilience on the Relationship Between Internalized Stigma and Quality of Life in People with Schizophrenia

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ARTICLE INFO

Article history:
Received 2 April 2019
Received in revised form
25 September 2019
Accepted 26 September 2019

Keywords:
quality of life
resilience, psychological
schizophrenia
self-esteem
social stigma

ABSTRACT

Purpose: This study examined the mediating effects of self-esteem and resilience on the relationship between internalized stigma and quality of life in people with schizophrenia.
Methods: The participants were 123 people with schizophrenia (mean age = 41.87 years; 62.6% men) recruited from Soonchunhyang university hospital, a mental health center, and daytime rehabilitation facilities located in Seoul and Gyeonggi Province in South Korea. Using a cross-sectional survey, participants completed structured questionnaires with psychometric adequacy. The regression method of Baron and Kenny was used to test the mediating effects of self-esteem and resilience on the relationship between internalized stigma and quality of life.
Results: Self-esteem and resilience were found to be full and partial mediators, respectively, in the relationship between internalized stigma and quality of life.
Conclusion: The findings of this study imply that effective future intervention strategies should target improvements in self-esteem and resilience to reduce the negative impact of internalized stigma on the quality of life of people with schizophrenia.

Introduction

The international lifetime prevalence of schizophrenia among noninstitutionalized persons is 0.3% to 0.7% [1]. In South Korea, the lifetime prevalence of schizophrenia was reported to be 0.5% according to the 2016 national survey of mental disorders conducted by the Korean Ministry of Health and Welfare [2]. As schizophrenia usually occurs in the age range of 15 to 25 years, when people are highly socially active, it significantly affects the quality of life and imposes major health-care costs due to its frequent recurrence and the chronic course of the disease [3]. The quality of life of people with schizophrenia is not only an important therapeutic goal beyond simply alleviating symptoms and preventing recurrence but also a significant indicator representing community adaptation and integration [4].

In recent years, researchers investigating the quality of life among people with schizophrenia have reported major associations between their quality of life and their experiences of social stigma and discrimination as people with a psychiatric disorder [5,6]. That is, as repeated self-stigmatizing thinking becomes an automatic mental habit, stigma becomes internalized and acts as a negative psychological factor, affecting their subjective quality of life and life satisfaction [5,6]. Moreover, in response to experiences of discrimination, people with schizophrenia internalize a sense of stigma and demonstrate passive coping responses, which limit their potential opportunities and have negative effects on their quality of life [5,7].

Internalized stigma has been reported to be closely associated with self-esteem, a personal characteristic [8]. Schizophrenia is a psychiatric disorder characterized by impaired psychiatric functions in cognition, perception, affect, behavior, and social activities [9]. People with schizophrenia experience social stigma and discrimination in the course of therapy and consequently develop low self-esteem as a result of difficulties in creating social

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https://doi.org/10.1016/j.anr.2019.09.004
p1976-1317 e2093-7482/

relationships, which can lead to a sense of hopelessness [9]. Higher levels of internalized stigma among people with psychiatric disorders lead to increased levels of self-abasement, resulting in negative effects on their self-esteem [10].

In people with schizophrenia, resilience is an important factor contributing to successful reintegration into society after recovery [7,11]. Resilience in people with psychiatric disorders refers to their ability to discover and to apply their strengths and potential in their struggle against the challenges of psychiatric symptoms and perceptions of stigma [12]. However, resilience among people with schizophrenia is markedly lower than among the general public or people with other psychiatric disorders; when these individuals experience social stigma and discrimination, they often fail to request help from their surroundings, which results in lower levels of resilience and, consequently, greater difficulties with recovery and social adaptation [12]. Higher levels of internalized stigma lead to a decreased level of resilience in people with schizophrenia, which also affects the course of disease recovery [12,13].

Self-esteem and resilience in people with schizophrenia are associated with their quality of life [14]. People with schizophrenia often perceive themselves as incompetent and fall into helplessness after experiencing frequent cycles of admission and discharge, social isolation, and social stigma; consequently, they are at risk for a decreased quality of life as they develop low levels of self-esteem [14,15]. In addition, resilience in the daily lives of people with schizophrenia affects their functional level and thus is closely associated with the quality of life [16].

Summarizing the results of previous studies, internalized stigma among people with schizophrenia has been separately associated with self-esteem, resilience, and quality of life, and self-esteem and resilience have each been found to be major variables that affect the quality of life among people with schizophrenia. Therefore, the present study hypothesized that self-esteem and resilience may act as a psychological mechanism underlying the relationship between internalized stigma and quality of life in people with schizophrenia. However, in previous studies, simple correlations between quality of life and other psychological variables such as internalized stigma, self-esteem, and resilience in people with schizophrenia have been examined. To the best of our knowledge, no previous studies have investigated the mediating effects of self-esteem and resilience on the relationship between internalized stigma and quality of life in people with schizophrenia.

Thus, the purpose of this study was to investigate self-esteem and resilience as mediators of the relationship between internalized stigma and quality of life in people with schizophrenia. The aims of the study were (a) to determine the levels of internalized stigma, self-esteem, resilience, and quality of life among people with schizophrenia; (b) to examine the relationships among internalized stigma, self-esteem, resilience, and quality of life; and (c) to examine the mediating effect of self-esteem and resilience on the relationship between internalized stigma and quality of life.

Methods

Study design and samples

This study was a descriptive cross-sectional research design. The participants of this study were people diagnosed with schizophrenia by a psychiatrist and registered as outpatients in the department of psychiatry of Soonchunhyang university hospital, people registered at daytime rehabilitation facilities located in Seoul, and people registered at a mental health center located in Gyeonggi Province, South Korea. The inclusion criteria of the study were as follows: having been diagnosed with schizophrenia according to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, not having any difficulty in communication and cooperation, and being an adult older than 19 years. The exclusion criteria were as follows: the presence of an organic mental disorder or neurological disorder and the presence of severe psychotic symptoms such as hallucinations and delusions.

The required sample size was calculated as 123, with a significance level of .05 in multiple regression analysis, a medium effect size of .15, power of 80.0%, and 11 predictors (i.e., eight demographic characteristics, internalized stigma, self-esteem, and resilience), using the G*power, version 3.1.9, software program (Heinrich Heine University, Dusseldorf, Germany). Therefore, the sample size was determined to be 150 participants based on the calculation and an assumed a dropout rate of 20%. A total of 150 questionnaires were distributed to the participants of this study. Of these, 128 questionnaires (response rate: 85.3%) were collected. Five responses were excluded because they were incomplete, and thus, 123 participants were included in the analysis.

Ethical considerations

Data collection for the study was approved by the Ethics Committee of Soonchunhyang university hospital (Approval no. 2018-08-001-001) and Kyung Hee university (Approval no. KHSIRB-18-046).

Measurements

Internalized Stigma of Mental Illness

Internalized stigma was measured using the Internalized Stigma of Mental Illness (ISMI) scale developed by Ritsher et al. [17] and translated into Korean by Hwang et al. [18]. The ISMI scale was developed to assess the subjective experience of stigma on a 29-item questionnaire containing items scored on a Likert scale with scores ranging from 1 (strongly disagree) to 4 (strongly agree) [17]. This scale included five subcategories: alienation, stereotype endorsement, discrimination experience, social withdrawal, and stigma resistance. The possible score range was 29 to 116; higher scores reflected a stronger experience of stigma. The Korean version of the ISMI scale (K-ISMI) used in this study had an excellent internal consistency reliability (Cronbach $\alpha = .91$) and good concurrent validity, showing positive correlations ($r = .54$) with a depression scale and negative correlations ($r = -.54$) with a self-esteem scale [18]. The K-ISMI scale demonstrated excellent reliability in the present study (Cronbach $\alpha = .92$).

Self-esteem

The Rosenberg Self-Esteem Scale (RSES) [19], which was translated into Korean by Jeon [20], was used to measure self-esteem. This scale measures global attitudes toward the self, as exemplified by respondents' self-acceptance and sense of self-worth. This 10-item scale is scored using a 4-point Likert scale, in which a score of 1 corresponds to “strongly disagree” and a score of 4 corresponds to “strongly agree.” The possible score range was 10 to 40, with a higher score being indicative of higher self-esteem. The Korean version of the RSES scale has shown good internal consistency reliability (Cronbach $\alpha = .89$) and good construct validity, with a single-factor structure explaining 42.7% of the variance in an earlier study [21]. The Korean version of the RSES scale showed good internal consistency reliability in the present study (Cronbach $\alpha = .81$).

Resilience

Resilience was measured using the Connor–Davidson Resilience Scale (CD-RISC) [22]. The CD-RISC was developed to measure various aspects of resilience in clinical samples or in the general

population [22]. The Korean version of the CD-RISC (K-CD-RISC), which was used in this study, has shown high internal reliability (Cronbach $\alpha = .93$), high test–retest reliability (r = .93), and good construct validity, with a five-factor structure explaining 57.2% of the variance [23]. The K-CD-RISC scale consists of a 25-item questionnaire using a Likert scale ranging from 0 (not true at all) to 4 (true nearly all of the time). The possible score range was 0 to 100; higher scores indicated higher resilience. The K-CD-RISC scale showed excellent reliability in the present study (Cronbach $\alpha = .94$).

Quality of life

Quality of life was measured using the fourth revision of the Schizophrenia Quality of Life Scale (SQLS-R4) developed by Wilkinson et al. [24] and translated into Korean by Kim et al. [25]. The Korean version of the SQLS-R4 (SQLS-R4K) has shown high internal consistency reliability (Cronbach $\alpha = .86$), high test–retest reliability ($r = .94$), and good concurrent validity, as demonstrated by a negative correlation with the World Health Organization Quality of Life-Brief Scale [25]. The SQLS-R4K consists of a 33-item questionnaire comprising two subscales [psychosocial feelings (22 items) and cognition and vitality (11 items)] scored using a Likert scale ranging from 0 (never) to 4 (always). The possible score range was 0 to 132; higher scores indicated higher quality of life. The SQLS-R4K scale demonstrated excellent reliability in the present study (Cronbach $\alpha = .95$).

Data collection

Data were collected from September 10 to 30, 2018. After receiving approval for data collection from the participant's primary physician in the department of psychiatry and from the administrators of the mental health center and daytime rehabilitation facilities, data were collected from the corresponding institutions.

Participants were recruited through a process in which the first author contacted health-care providers from each institution and attended a meeting at each institution to explain the purpose of the study, its procedures, and its eligibility criteria. The health-care providers at each institution introduced participants who were appropriate for the purpose of the study. When explaining the study to potential participants at each institution, the investigators also explained policies regarding anonymity, confidentiality, and consent of a representative. In addition, the investigators distributed a handout explaining the study. Participants' legal representatives were the parents or siblings of people with schizophrenia. We obtained consent from the participants' family members after the institutional review board determined that the participants were a vulnerable group. Subsequently, the investigators met participants at appointed times, obtained written informed consent, and conducted the survey. Questionnaires were conducted in a self-reported form, and the mean time required to complete the form was 30 minutes; the completed questionnaires were directly collected by the investigators. After the survey, inexpensive consumer goods were provided to the participants as remuneration.

Data analysis

All statistical analyses were conducted using IBM SPSS, version 25.0, for Windows (IBM Corp., Armonk, NY, USA). The general characteristics of the participants were analyzed using descriptive statistics. The Pearson correlation analysis was performed to analyze the relationships between pairs of variables. The effects of self-esteem and resilience as mediators of the relationship between internalized stigma and quality of life were analyzed by means of three-stage simple and multiple regression analyses, following the proposal of Baron and Kenny [26]. In this three-stage method, a variable must satisfy the following three conditions to be considered to have a mediating effect. First, the independent variable (internalized stigma) must show a significant effect on the mediating variable (self-esteem and resilience). Then, the independent variable must be confirmed to significantly affect the dependent variable (quality of life). Finally, the mediating variable must significantly affect the independent variable, and the effect of the independent variable on the dependent variable must be lower than in the second stage. The Sobel test was used to determine self-esteem and resilience as mediators of the relationship between internalized stigma and quality of life. To check the assumption of linearity in the model, the Kolmogorov–Smirnov test was used to determine whether the scores for the variables analyzed in this study showed a normal distribution. Normality was confirmed by a p-value of more than .05 for each variable (p-values: .078–.200).

Results

Participants' demographic characteristics and differences in quality of life

There were 77 men (62.6%) and 46 women (37.4%). The mean age was 41.87 years. Sixty-two participants (50.4%) had a high-school diploma, and 103 participants (83.7%) were unmarried. The mean age of onset of schizophrenia was 25.22 years, and there were 60 participants (48.8%) who responded that their age of onset was 20–29 years, which accounted for the highest percentage. Upon analysis of differences in quality of life according to the participants' general characteristics, age (F = 5.06, $p = .002$),

Table 1 *General Characteristics of the Participants (N = 123).*

Variables	Mean ± SD or *n* (%)	Quality of life	
		Mean ± SD	t/F(*p*) Scheffé
Gender			
Men	77 (62.6)	2.44 ± 0.67	.03
Women	46 (37.4)	2.44 ± 0.79	(.976)
Age (yrs)	41.87 ± 10.39		
20–29[a]	19 (15.4)	1.89 ± 0.70	5.06
30–39[b]	32 (26.0)	2.61 ± 0.73	(.002)
40–49[c]	45 (36.6)	2.53 ± 0.63	b,c,d > a
≥ 50[d]	27 (22.0)	2.48 ± 0.71	
Education			
≤ Middle school	13 (10.6)	2.28 ± 0.83	.42
High school	62 (50.4)	2.44 ± 0.72	(.660)
≥ College	48 (39.0)	2.49 ± 0.69	
Religion			
No	34 (27.6)	2.43 ± 0.77	-.93
Yes	89 (72.4)	2.45 ± 0.70	(.355)
Marital status			
No	103 (83.7)	2.35 ± 0.69	9.35
Yes	20 (16.3)	3.24 ± 0.46	(<.001)
Residential status			
Living alone[a]	19 (15.4)	2.36 ± 0.80	3.80
Living with family[b]	77 (62.6)	2.50 ± 0.64	(.012)
Residential facilities[c]	27 (22.0)	2.73 ± 0.77	c > a
Monthly income (10,000 KRW)			
None[a]	92 (74.8)	2.34 ± 0.70	4.11
< 100[b]	21 (17.1)	2.64 ± 0.74	(.019)
≥ 100[c]	10 (8.1)	2.92 ± 0.66	c > a
Age of onset (yrs)			
< 20[a]	33 (26.8)	2.31 ± 0.64	2.74
20–29[b]	60 (48.8)	2.30 ± 0.75	(.047)
≥ 30[c]	30 (24.4)	2.50 ± 0.67	c > a,b

Note. KRW = Korean won; SD = standard deviation; yrs = years.
[a,b,c,d] Scheffé test.

marital status (F = 9.35, $p < .001$), residential status (F = 3.80, $p = .012$), monthly income (F = 4.11, $p = .019$), and age of onset of schizophrenia (F = 2.74, $p = .047$) showed significant differences (Table 1).

Levels of internalized stigma, self-esteem, resilience, and quality of life

The mean score (standard deviation) for internalized stigma was 62.33 (14.46) of 116. The subfactor of stereotype endorsement had the highest mean score (15.82), followed by alienation (12.72), social withdrawal (11.64), discrimination experience (11.10), and stigma resistance (11.05). The mean scores (standard deviation) for self-esteem, resilience, and quality of life were 28.10 (4.50), 58.97 (18.96), and 80.46 (24.70), respectively (Table 2).

Relationships of internalized stigma, self-esteem, and resilience with quality of life

Internalized stigma was significantly negatively correlated with self-esteem (r = −.72, $p < .001$), resilience (r = −.62, $p < .001$), and quality of life (r = −.59, $p < .001$). Statistically significant positive correlations were found between quality of life and self-esteem (r = .70, $p < .001$) and resilience (r = .51, $p < .001$) (Table 3).

Mediating effects of self-esteem and resilience on the relationship between internalized stigma and quality of life

Quality of life varied significantly depending on age, marital status, cohabitation, monthly income, and age of onset of schizophrenia (Table 1). Therefore, those five variables were dummy-coded and entered into the mediation models as control variables. Furthermore, owing to the close correlation between self-esteem and resilience, the two mediators studied herein [3], a simple mediation model instead of a multiple mediation model was used for each mediation analysis.

The first stage of the regression analysis conducted to examine the mediating role of self-esteem showed that internalized stigma had a significant effect on self-esteem ($\beta = -.67$, $p < .001$). The second stage demonstrated a significant effect of internalized stigma on quality of life ($\beta = -.54$, $p < .001$). In the third stage, in which quality of life was entered as the dependent variable and internalized stigma and self-esteem were entered as predictor variables, only self-esteem had a significant effect on quality of life ($\beta = .54$, $p < .001$), accounting for 37.1% of the variance. These results confirmed that self-esteem functioned as a full mediator of the relationship between internalized stigma and quality of life. The Sobel test confirmed the mediating effect of self-esteem (Z = −4.80, $p < .001$).

The first stage of the regression analysis conducted to assess the mediating role of resilience showed that internalized stigma had a significant effect on resilience ($\beta = -.57$, $p < .001$). The second stage demonstrated a significant effect of internalized stigma on quality of life ($\beta = -.54$, $p < .001$). In the results of the third stage, in which quality of life was entered as the dependent variable and internalized stigma and resilience were entered as predictor variables, a significantly weaker negative effect of internalized negative stigma on quality of life was found ($\beta = -.41$, $p < .001$), and it was also shown that resilience had a significant positive effect on quality of life ($\beta = .23$, $p = .014$), explaining 25.3% of the variance. That is, resilience functioned as a partial mediator of the relationship between internalized stigma and quality of life. The Sobel test confirmed the mediating effect of resilience (Z = −2.33, $p = .020$) (Table 4, Figure 1).

Table 2 *Levels of Internalized Stigma, Self-esteem, Resilience, and Quality of Life Among Participants (N = 123).*

Variables	Categories	Range	Min	Max	Mean ± SD
Internalized stigma	Alienation	6–24	6	21	12.72 ± 3.48
	Stereotype endorsement	7-28	7	23	15.82 ± 3.36
	Discrimination experience	5-20	5	19	11.10 ± 2.40
	Social withdrawal	6-24	6	17	11.64 ± 2.82
	Stigma resistance	5-20	5	17	11.05 ± 2.40
	Total scores	29-116	29	90	62.33 ± 14.46
Self-esteem		10-40	17	40	28.10 ± 4.50
Resilience	Hardness	0-36	6	35	20.07 ± 6.48
	Persistence	0-32	1	32	20.00 ± 6.24
	Optimism	0-16	3	16	9.68 ± 3.04
	Support	0-8	1	8	4.84 ± 1.62
	Spiritual in nature	0-8	1	8	4.38 ± 1.58
	Total scores	0-100	17	97	58.97 ± 18.96
Quality of life	Psychosocial feelings QoL	0-80	0	75	49.00 ± 15.60
	Cognition/Vitality QoL	0-52	0	42	31.46 ± 9.10
	Total scores	0-132	15	128	80.46 ± 24.70

Note. SD = standard deviation.

Table 3 *Correlations among Internalized Stigma, Self-Esteem, Resilience, and Quality of Life (N = 123).*

Variables	Internalized stigma	Self-esteem	Resilience	Quality of life
	r (*p*)	r (*p*)	r (*p*)	r (*p*)
Internalized stigma	–			
Self-esteem	−.72 (<.001)	–		
Resilience	−.62 (<.001)	.75 (<.001)	–	
Quality of life	−.59 (<.001)	.70 (<.001)	.51 (<.001)	–

Discussion

To the best of our knowledge, a novel finding of this study is that self-esteem and resilience played the role of individual mediators in the relationship between internalized stigma and quality of life among people with schizophrenia in South Korea. In this study, the mean internalized stigma score of our participants was lower than the result of previous studies that measured the internalized stigma of hospitalized people with schizophrenia [8,18]. These results suggest that hospitalization may increase internalized stigma in people with schizophrenia. In addition, stereotype endorsement showed the highest mean score among the subscales of internalized stigma, and stigma resistance showed the lowest mean score. This finding is consistent with the results of a previous study [10]. As increased negative stereotype endorsement is highly associated with negative symptoms and may further augment social withdrawal [6], changes in perceptions of the corresponding subscales may have influenced the lower scores for stigma. The mean quality of life score of the participants was higher than the median value, which is also similar to the results of the previous studies acquired from people with schizophrenia visiting the outpatient department using the same instrument [12,25].

Higher quality of life in people with schizophrenia was associated with lower levels of internalized stigma and with higher self-esteem and resilience. Quality of life in people with schizophrenia showed the strongest association with self-esteem, followed by internalized stigma and resilience. These results are consistent with the findings of a previous study conducted only in people with schizophrenia that found self-esteem to be a significant factor affecting their quality of life [14,28]. These results are also consistent with those of previous studies reporting that internalized stigma among people with schizophrenia negatively affected their self-esteem [8] and that people with schizophrenia with high

Table 4 *Mediating Effect of Self-Esteem and Resilience on the Relationship between Internalized Stigma and Quality of Life (N = 123).*

Steps	Independent variables	Dependent variable	B	SE	β	t	*p*	Adjusted R^2	F (*p*)	Sobel test	
										Z	*p*
1	Internalized stigma	Self-esteem	−.69	.08	−.67	−9.08	<.001	.344	82.47 (<.001)		
2	Internalized stigma	Quality of life	−.90	.14	−.54	−6.45	<.001	.125	41.56 (<.001)		
3	Internalized stigma	Quality of life	−.30	.16	−.18	−1.84	.074	.371	42.61 (<.001)	−4.80	<.001
	Self-esteem		.87	.15	.54	5.67	<.001				
1	Internalized stigma	Resilience	−.88	.13	−.57	−6.88	<.001	.255	47.39 (<.001)		
2	Internalized stigma	Quality of life	−.90	.14	−.54	−6.45	<.001	.125	41.56 (<.001)		
3	Internalized stigma	Quality of life	−.68	.16	−.41	−4.17	<.001	.253	24.84 (<.001)	−2.33	.020
	Resilience		.25	.10	.23	2.49	.014				

Note. SE = standard error.

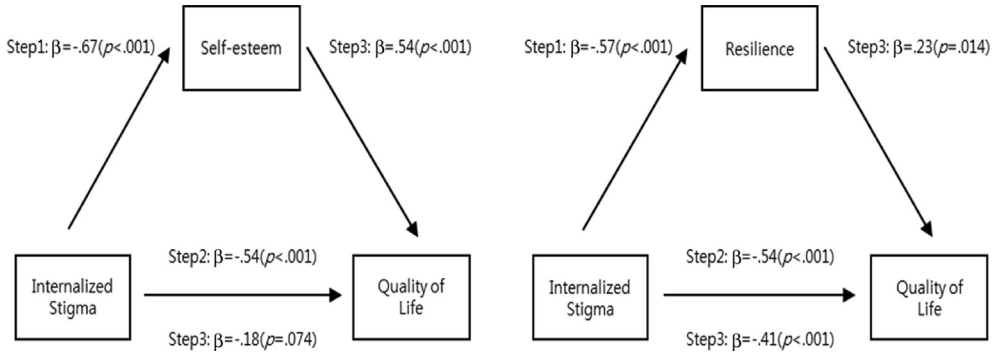

Figure 1. Mediating effects of self-esteem and resilience on the relationship between internalized stigma and quality of life.

internalized stigma adopted passive coping strategies due to their experiences of discrimination and no longer sought help from others, which progressively led to lower resilience and, consequently, a negative impact on their quality of life [12].

In addition, our result is consistent with the finding of a previous study that improving self-esteem in people with schizophrenia could affect both their mental health and well-being and that people with schizophrenia with high resilience were more likely to feel happiness [29]. Therefore, these findings indicate that intervention strategies to decrease internalized stigma and to increase self-esteem and resilience are required to improve the quality of life of people with schizophrenia.

Self-esteem showed a full mediating effect on the relationship between internalized stigma and quality of life. In other words, rather than directly affecting the quality of life of people with schizophrenia, internalized stigma affected their self-esteem, which in turn affected their quality of life. This finding is consistent with the results of a previous study reporting that internalized stigma in people with schizophrenia decreased their levels of self-esteem, which in turn decreased their quality of life [9]. In addition, previous studies reported that internalized stigma in people with mental illness was highly associated with low self-esteem [8,10] and that low self-esteem was an underlying psychological cause of stigma, social avoidance, and negative health outcomes [30]; these findings also support the results of this study. As self-esteem is an essential predictor that determines the quality of life in people with schizophrenia, this factor is more important than symptom severity or their sociodemographic factors [14,30], and self-esteem is also known to be a key factor that assists with community adaptation and recovery and improves the quality of life in people with schizophrenia [7,14]. Therefore, intervention strategies focusing on improving the self-esteem of people with schizophrenia in the community are extremely important to prevent the negative effects of stigma on their quality of life.

In contrast to self-esteem, resilience showed a partial mediating effect on the relationship between internalized stigma and quality of life. In other words, internalized stigma not only had direct effects on quality of life but also had indirect effects mediated by resilience. This finding is consistent with the results of a previous study reporting that perceived stigma in people with schizophrenia directly affected their life satisfaction and that increased levels of perceived stigma led to lower resilience, resulting in decreased quality of life [12,31]. Resilience of mentally disabled persons has been defined as the capability of an individual to continuously discover and to create an environment suitable for strengthening his or her potential [12]. People with schizophrenia who have a higher level of resilience could take a more flexible approach to their problems and better adapt to long-term adversity.

As internalized stigma originates from attitudes presented by the general public, eliminating social stigma is the responsibility of society as a whole and must be prioritized; however, experiences of social stigma do not necessarily lead to internalized stigma among patients with psychiatric disorders [32]. Patients with psychiatric disorders with high self-esteem are less susceptible to the negative effects of social stigma and internalized stigma [16,32]. Studies on stigma have mainly focused on its negative effects on individuals' lives; however, devising various individual strategies to overcome such stigma may not only provide protection but also help an individual to develop a sense of accomplishment. The cognitive behavioral approach, which seeks to convert negative cognitions such as worthlessness and incompetence resulting from perceived stigma into positive cognitions, may act as a protective factor that can help restore the social relationships from which individuals withdraw owing to stigma by enabling participants to view themselves as valuable individuals [27]. Therefore, to improve the quality of life of people with schizophrenia, providing interventions focused on improving self-esteem and resilience, rather than directly dealing with the internalized stigma itself, is expected to generate positive effects on their quality of life.

Recently in South Korea, the Improvement of Mental Health and Social Service Support to Persons with Mental Illness Act was revised and implemented starting in 2018 to promote the rights and welfare of people with mental illness. Such changes in legal policies are focused on emphasizing life as an ordinary human being for people with mental illness. Accordingly, this study is meaningful in that it has provided evidence supporting a focus on increasing self-esteem and resilience in people with schizophrenia to enable them to overcome the internalized stigma resulting from social stigma and discrimination and to improve their quality of life.

Limitations

This study has several limitations. First, this study was conducted in South Korea and therefore has limitations in representing the general population of other countries. Second, people with schizophrenia receiving outpatient treatment at the department of psychiatry or registered at daytime rehabilitation facilities or a mental health center were recruited via convenience sampling. Some of the participants also participated in a rehabilitation program for social adaptation associated with stigma, with features specific to each institution; therefore, the results of this study cannot be generalized to the entire population of individuals with schizophrenia. Third, although general characteristics (age, marital status, monthly income, cohabitation) and the age of onset of schizophrenia, which may affect the quality of life of people with schizophrenia, were included as control variables in the analysis of mediation models, a limitation of this study is that other variables, such as the severity of psychotic symptoms, which may also affect the quality of life were not controlled.

Conclusion

This study demonstrated that self-esteem had a full mediating effect and that resilience had a partial mediating effect on the relationship between internalized stigma and quality of life in people with schizophrenia. Therefore, nursing interventions focusing on self-esteem and resilience, rather than directly dealing with internalized stigma itself, are required to increase the quality of life of people with schizophrenia in the community. Programs that increase self-esteem are expected to be especially effective in improving the quality of life of people with schizophrenia who experience internalized stigma. Therefore, future studies are advised for community mental health professionals to develop and investigate the effects of programs focusing on self-esteem and resilience as ways to decrease the internalized stigma experienced by people with schizophrenia and to improve their quality of life.

Conflict of interest

The authors have no conflict of interest to declare.

Funding

No funding.

Acknowledgments

This article is a condensed form of the first author's master's thesis from Kyung Hee University in Seoul, Korea. The authors thank all the participants who participated in the study.

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