RCPHN
Research in Community and Public Health Nursing

Original Article

pISSN 2983-0648 · eISSN 2288-4203
Res Community Public Health Nurs 2024;35(4):313-324
https://doi.org/10.12799/rcphn.2024.00598

The Effects of Adverse Childhood Experiences, Benevolent Childhood Experiences, and Community Integration on Resilience in Psychiatric Outpatients

Keum Ran Hong[1], **Hye Kyung Lee**[2]

[1]Graduate Student, Department of Nursing, Kongju National University, Gongju, Korea
[2]Professor, Department of Nursing, Kongju National University, Gongju, Korea

Purpose: The purpose of this study is to determine the impact of adverse childhood experiences, positive childhood experiences, and community integration on resilience in psychiatric outpatients.
Methods: The study subjects were 166 psychiatric outpatients in one general hospital in South Korea who were diagnosed with schizophrenia spectrum disorder, bipolar disorder, or depression disorder. The collected data were analyzed with the t-test, ANOVA, Pearson's correlation coefficient, multiple regression analysis, using the SPSS/WIN 24 program.
Results: There were statistically significant differences in resilience in psychiatric outpatients according to age, religion, occupation, type of household, type of diagnosed disorder. In psychiatric outpatients, resilience showed a significant positive correlation with benevolent childhood experiences and community integration, but had a negative correlation with adverse childhood experiences. Multiple regression analysis for resilience in psychiatric outpatients revealed that the significant factors affecting resilience were community integration, benevolent childhood experiences, adverse childhood experiences, housing facilities (type of household), ages 40-49, and living alone (type of household). These factors explained 52.2% of the variance.
Conclusion: In order to improve the resilience of mentally ill people, a campaign is needed to increase the accessibility of community participation programs in mental health services for community integration and to publicize the influence of benevolent childhood experiences and adverse childhood experiences. Furthermore, it is necessary to identify individual factors such as residence type and age of mentally ill people, build a customized support system by considering their specific needs, and develop intervention programs to strengthen resilience.

Keywords: Mentally Ill person; Resilience; Adverse childhood experiences; Community integration

Introduction

Background

As a result of the amendment of the Act on the Improvement of Mental Health and the Support for Welfare Services for Mental Patients and the implementation of the deinstitutionalization policy, a comprehensive mental rehabilitation service project has been implemented to ensure that patients with mental illness discharged from psychiatric hospitals will successfully return to the community [1]. As a result, in 2022, the number of patients treated for mental illness (code F) was 2,593,148 people, and the number of psychiatric patients hospitalized in mental institutions was 116,277 people in total, showing a gradual decline in the number of mentally ill patients receiving inpatient psychiatric treatment, compared to 138,882 people in 2019 and 122.829 people in 2020 [2]. Also, the number of patients with mental illness returning to the community has been gradually increasing. However, the readmission rates within one month and within

Received: June 5, 2024; **Revised:** September 6, 2024; **Accepted:** September 18, 2024
Corresponding author: Hye Kyung Lee
Department of Nursing, Kongju National University, 56, Gongjudaehak-ro, Gongju, 32588, Korea
Tel: +82-41-850-0313 Fax: +82-41-850-0315 E-mail: hklee@kongju.ac.kr

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three months after discharge from a mental institution are reported to be 21.2% and 27.1%, respectively, and these high readmission rates are mainly attributed to the frequent relapses of mental illness and difficulty in successfully returning to the community and living independently after hospital discharge [2]. In particular, according to a survey of the status of community living and treatment of people with psychiatric disabilities, 90% of the survey participants reported that they had not received medication education, guidance on available facilities and services after discharge, and information on the institutions they can visit in case of a relapse of symptoms at the time of discharge, and they pointed out that the lack of both support for daily living and services for rehabilitation and recovery is the main cause of hospital readmission [1]. Therefore, in order to ensure that patients with mental illness will be able to lead their daily lives for themselves while living in the community, there is a need to provide activities that can restore their mental and social functions for daily life. In other words, it is necessary to provide nursing care activities to help their recovery of daily living functions.

Meanwhile, as the internal aspects of mentally ill patients have been emphasized as a result of a paradigm shift regarding the recovery of people with mental illness, increasing attention has been paid to resilience, which enables an individual to lead a successful and independent life regardeless of the presence or absence of psychiatric symptoms [3]. The resilience of mentally ill patients is defined as the 'ability to find, expand, and apply their strengths and potential in the face of adversity and challenges due to psychiatric symptoms and perceived stigma [3]. The factors affecting resilience are largely divided into risk factors and protective factors, and risk factors include psychiatric symptoms, poverty, chronic diseases, a low level of social support, and exposure to violence, and have a negative impact on resilience [4]. Protective factors for resilience include an individual's positive internal characteristic factors, support from the family and the community, and meaningful and positive interpersonal relationships, and these protective factors reduce negative influences such as risk factors, and help to maintain or promote positive adaptation [4]. Resilience develops through the interacction with the environment where each individual grows up, and has the quality of being variable in that it changes depending on internal and external influences [5]. If this resilience is influenced by factors that enable successful adaptation, it can perform the role of blocking the possibblity of developing psychopathology in the process of normal development, but factors negatively affecting resilience may lower the level of resilience, and thereby prevent people from reaching the desired level of development or promote the development of psychopathology [6]. Therefore, research should be conducted to examine the level of resilience and investigate factors affecting resilience in mentally ill patients.

In particular, adverse childhood experiences (ACEs) are a risk factor for resilience, and they refer to highly stressful events or situations such as various types of neglect, physical, emotional, and sexual abuse, other serious dysfunctional family processes, and abusive violence that intensively and frequently happen and are experienced in the childhood before age 18 [7]. ACEs are a factor that may hinder emotion regulation in adulthood, thereby increase the likelihood of experiencing depression and suicide attempts, lead to drug and alcohol dependence and have a negative impact on mental health [8]. Further, in patients with mental illness, childhood abuse history may negatively affect depression, anxiety, and resilience, and may be a predictive factor for symptom severity and treatment prognosis [9]. However, in the field of nursing, previous studies of the impact of child abuse on resilience have been limited to research from nurses' perspective on child abuse, such as research on the reporting attiude or reporting intetion of nurses [10,11], so there is a lack of research centered on abuse victims although such research should be conducted in the field of nursing. Therefore, there is a need to examine the degree of ACEs and investigate the relationship between ACEs and resilience in mentally ill people.

Benevolent childhood experiences (BCEs) are protective factors for resilience, and refer to remembering the feeling of being comfortable, safe, and connected to others and the experience of positive attachment to parents, effective parenting, and positive relationships with teachers, peers, and relatives [12]. BCEs have a buffering effect for ACEs, thus act as a protective factor for resilience that enables individuals to adapt to the impact of trauma in early adulthood, and function as a psychological nourishment that helps individuals to overcome adversity in the family, in the community, and at school [12]. A prospective study of the association between resilience and BCEs reported that BCEs were found to have a positive effect on resilience, and have a significant relationship with the alleviation of avoidant and schizoid personality disorders [13]. As BCEs act as a protective factor for resilience, this factor has currently emerged as an important issue, but few domestic studies on resilience in patients with mental illness have analyzed BCEs, so research is needed to examine the relationship between BCEs and resilience and the impact of BCEs on resilience in patients with mental illness.

Meanwhile, community integration is the concept that includes not only the physical environment in the community of patients with mental illness but also the maintenance of social re-

lationships with the members of the community and the development of the sense of belonging in the relationship with the community [14]. The ability to calmly cope with social prejudice or stigma experienced in the process of community integration can be gained through resilience [15]. To ensure that patients with mental illness will achieve social adaptation as healthy subjects in the community and receive integrated community mental health services, it is first required to strengthen their resilience. Therefore, it is necessary to investigate the level of sense of belonging in the community and the impact of sense of belonging on resilience in patients with mental illness, and develop and implement customized strategies.

According to previous studies on resilience in patients with mental illness, social support and social activity participation were shown to have a very significant impact on resilience in female patients with mental illness [16], and higher self-esteem and fewer problems in the family relationship were found to have a more positive effect on resilience in patients with mental illness [5]. However, so far, only a small number of studies have been conducted on resilience in mentally ill patients for reasons such as a reliability problem due to the subjective reports of mentally ill patients or prejudice. In particular, resilience is a complex concept that involves a combination of fixed traits and states, and it is influenced by external environmental factors as well as individuals' innate characteristics [4]. Therefore, it is necessary to examine not only individual factors, such as age, the presence of occupation, and independent living status, but also environmental factors, including childhood experiences experienced during the development process, and external environmental factors, such as support from the community where interactions are currently taking place and positive interpersonal relationships.

Therefore, this study attempted to investigate benevolent childhood experiences, adverse childhood experiences, community integration, and resilience in psychiatric outpatients, and identify factors affecting resilience in order to present basic data that can serve to lay the foundation for nursing interventions.

Aim and Objectives

The main aim of this study is to identify the factors affecting resilience in psychiatric outpatients, and the specific objectives are as follows:

1) To examine the general characteristics, disease-related characteristics, adverse childhood experiences, benevolent childhood experiences, community integration, and the level of resilience of the participants;
2) To examine the level of resilience according to the general characteristics and disease-related characteristics of the participants;
3) To investigate correlations between adverse childhood experiences, benevolent childhood experiences, community integration, and resilience in the participants;
4) To identify factors affecting resilience in the participants.

Methods

Study design

This study is a descriptive survey research to identify factors affecting resilience in psychiatric outpatients.

Participants

The participants of this study were adults aged 18 to 65 who visited the department of psychiatry of K University Hospital in D Metropolitan City, and were diagnosed with schizophrenia spectrum disorder, bipolar disorder or depressive disorder. This research was conducted only with the patients who understood the purpose of the present study, and voluntarily gave informed consent to participate in the study. The minimum sample size for multiple regression analysis was calculated using G-power 3.1.9.4 with a significance level of .05, a medium effect size of .15, a power of .95, and 9 predictor variables. As a result, the minimum sample size was calculated as 166 people. Considering a 10% dropout rate due to insincere responses, questionnaires were distributed to 180 people, and a total of 166 copies were finally included in the analysis by excluding 14 copies with inadequate responses or missing data.

Measures

1. Adverse childhood experiences

Adverse Childhood Experiences (ACEs) was assessed using the ACEs Questionnaire presented by the Centers for Disease Control and Prevention (CDC) of the United States. Ford et al. [17] conducted exploratory factor analysis for this tool. This study used this questionnaire after confirming that there are no restrictions on its use for academic purposes. The ACEs Questionnaire consists of 10 items on 10 types of childhood experiences, and the items include 5 items on physical, verbal, and sexual abuse and physical and emotional neglect that an individual experienced directly. The remaining 5 items are about experiences related to family members, such as experiences about parents who were victims of domestic violence, imprisoned family members, family members diagnosed with mental illness, divorce or death of parents, or a missing parent. For each item of the question-

naire, if the response is 'No', 0 points are assigned, and if the response is 'Yes', 1 point is assigned. Higher total scores indicate higher levels of ACEs. According to Hughes et al. [18], total scores of 4 points or higher are significantly associated with mental illness and mental health. Therefore, in this study, analysis was conducted by dividing total scores into three groups: 0 points, 1~3 points, and 4 points or higher. Regarding the reliability of the ACEs Questionnaire, Cronbach's α was reported as .78 by Ford et al. [17], and Cronbach's α was calculated as .71 in this study.

2. Benevolent childhood experiences

Benevolent childhood experiences (BCEs) were measured using the Benevolent Childhood Experiences (BCEs) Scale developed by Narayan et al. [12], and this scale was used after receiving approval for its use from the authors. The BCEs Scale consists of 10 items regarding stable parenting, quality of life, relational support, and positive self-perception during the childhood from birth to age 18. For each item, 0 points are assigned for the 'No' response, and 1 point is assigned for the 'Yes' response. Higher total scores indicate higher levels of BCEs. For the reliability of the tool, Cronbach's α was reported as .75 by Narayan et al. [12], and it was calculated as .84 in this study.

3. Community integration

Community integration was measured using the Self-Report Community Integration Sale for Persons with Psychiatric Illnesses developed by Choi [14]. The scale was used after receiving approval from the developer. This tool can be used to examine the physical existence within the community, the degree of the maintenance of social relationships with the community members, and the degree of sense of belonging. It consists of a total of 30 items, including 12 items on physical integration for examining whether an individual independently uses materials and services, 10 items on social integration for measuring the degree of social contact, and 8 items on psychological integration for measuring the degree to which an individual perceives himself or herself as a member of the community [14]. Each item is rated on a 5-point Likert scale (physical integration: 1 point (=Very difficult) to 5 points (=Very easy); social integration: 1 point (=None) to 5 points (=Almost all); psychological integration: 1 point (=Strongly disagree) to 5 points (=Strongly agree). Higher scores indicate higher levels of community integration. Choi [14] reported that Cronbach's α values were .92 for physical integration, .92 for social integration, and .93 for psychological integration. In the present study, Cronbach's α values were .95 for physical integration, .95 for social integration, and .96 for psychological integration.

4. Resilience

Resilience was assessed using a Korean version of the Connor-Davidson Resilience Scale for adults developed by Conner & Davidson. The Korean version of the Connor-Davidson Resilience Scale (K-CD-RISC) was developed by Baek et al. [19] after receiving approval from the authors of the original tool. K-CD-RISC contains a total of 25 items. Each item is assessed on a 5-point Likert scale (0 points=Not at all; 4 points=Very much), and higher scores indicate higher levels of resilience. Cronbach's α was reported as .92 by Baek et al. [19], and Cronbach's α was .96 in this study.

Data collection

After receiving approval from the Institutional Review Board of K University Hospital in D Metropolitan City, a questionnaire survey was carried out from January 20 to March 30, 2022. Before conducting the survey, the researcher explained the necessity, purpose and content of the study to a professor in the Department of Psychiatry of the hospital to ask for cooperation for the study, and received permission for data collection. The participants of the survey were recruited among the psychiatric patients recommended by the attending psychiatrist among the patients who were receiving treatment for schizophrenia spectrum disorder, bipolar disorder, or depressive disorder. The survey was conducted only with the patients who voluntarily agreed to participate after giving explanations about the purpose and necessity of the study were provided to the potential participants. The questionnaires were distributed to the participants in a face-to-face manner in the outpatient waiting room of the hospital, and the participants completed the questionnaires in the medical institution. It took 10 to 15 minutes for each respondent to complete the questionnaire, and an e-gift card was given to each respondent as a token of appreciation after they completed the questionnaires.

Data analysis

The collected data was analyzed using SPSS/WIN 24.0 as follows.

- The general characteristics and disease-related characteristics of the participants were analyzed by calculating descriptive statistics such as the frequency, percentage, mean and standard deviation.
- The adverse childhood experiences of the participants were

analyzed by calculating the means, standard deviations, culmulative scores, and the frequencies and percentages of the cumulative scores. The levels of benevolent childhood experiences, community integration, and resilience were analyzed by calculating the means and standard deviations.

- To analyze differences in resilience according to the general characteristics and disease-related characteristics of the participants, the independent sample t-test and One-way ANOVA were used, and the Scheffé test was performed as a post-hoc test.
- Correlations between adverse childhood experiences, benevolent childhood experiences, community integration, and resilience in the patients were analyzed using the Pearson's correlation coefficient.
- In addition, multiple regression analysis was performed to analyze factors affecting resilience among the participants.

Ethical considerations

This study was conducted after obtaining approval from the Institutional Review Board of K University Hospital (IRB No. KYUH 2021-12-004-002) and receiving permission from a professior of the Department of Psychiatry of K University Hospital after explaining the procedure of the study. In addition, the participants of this study were recruited among the psychiatric patients whom a professor of the Department of Psychiatry judged to have the ability to perceive reality. The researcher gave explanations about the guarantee of anonymity and the participants' right to withdraw from the study at any time at will to the patients who understood the purpose of the study and voluntarily agreed to participate in the study. In addition, the participants were informed that the collected data would be encoded and electronically recorded by the researcher, the content of the survey data would not be used for any other purposes than research, and the data used for the study would be discarded 3 years after the completion of the study.

Results

General and disease-related characteristics of the participants

The general characteristics and disease-related characteristics of the participants are shown in Table 1. The total number of the participants was 166. With respect to the general characteristics of the participants, in gender, females took up 51.2% (85 people), and males made up 48.8% (81 people). The mean age was 34.83 ± 10.76 years, and the 20–29 age group took up the largest proportion at 43.4% (72 people). In education level, high school graduates took up 48.2% (80 people). As to religion, 61.4% (102 people) responded that they believed in no religion. Regarding occupation, the group without an occupation accounted for the largest proportion at 48.8% (81 people), but among the group with an occupation, regular workers (28.3%, 47 people) took up the largest proportion. For marital status, single people accounted for 78.3% (130 people), and in terms of type of household, the group living with the family took up 74.1% (123 people). Regarding primary caregiver, the group who reported parents as the primary caregiver accounted for 88.6% (147 people). With respect to disease-related characteristics, for type of diagnosed disorder, people with bipolar disorder took up the largest proportion (41.0%, 68 people). Regarding duration of illness, the average duration of illness was 9.76 ± 9.46 years, and people with a duration of illness of 5 years or less accounted for 45.7% (76 people), taking up the largest proportion (Table 1).

Differences in the level of resilience according to general and disease-related characteristics of the participants

The analysis results of differences in the level of resilience according to the general and disease-related characteristics of the participants are shown in Table 1, and it was found that there were significant differences in the level of resilience acccording to age ($F = 4.52$, $p = .005$), religion ($t = 3.13$, $p = .002$), occupation ($F = 3.75$, $p = .012$), and type of household ($F = 7.08$, $p = .001$) among general characteristics. Regarding disease-related characteristics, there was a significant difference in the level of resilience according to type of diagnosed disorder ($F = 7.08$, $p = .001$). As a result of a post-hoc test, the level of resilience was significantly higher in the 40-49 age group than other age groups. Also, in terms of occupation, the regular worker group showed a higher level of resilience, and in terms of type of household, the group living in 'housing facilities' showed a higher level of resilience. Also, in terms of type of diagnosed disorder, schizophrenia spectrum disorder was linked to a higher level of resilience.

Levels of adverse childhood experiences, benevolent childhood experiences, community integration, and resilience among the participants

The levels of adverse childhood experiences (ACEs), benevolent childhood experiences (BCEs), community integration, and resilience among the participants are shown in Table 2. The mean score for ACEs was 2.72 ± 2.24 out of 10 points. As for the cumulative score of ACEs, the participants with 0 points were 36 people (21.7%), those with 1~3 points were 73 people (44.0%), and

Table 1. Differences in Resilience by General and Disease related Characteristics (*N*=166)

Variables	Categories	n (%) or M ± SD	Resilience M ± SD	T or F (*p*) Schffé
Gender	Male	81 (48.8)	1.75 ± 0.73	-1.35 (.178)
	Female	85 (51.2)	1.88 ± 0.77	
Age (year)	20~29[a]	72 (43.4)	1.69 ± 0.87	4.52 (.005) a,b,d < c
	30~39[b]	34 (20.5)	1.62 ± 0.63	
	40~49[c]	39 (23.5)	2.17 ± 0.57	
	≥ 50[d]	21 (12.6)	1.89 ± 0.54	
		34.83 ± 10.76		
Education level	High school	80 (48.2)	1.80 ± 0.77	0.01 (.996)
	Attending college	31 (18.7)	1.81 ± 0.75	
	≥ College graduation	55 (33.1)	1.84 ± 0.73	
Religion	Yes	64 (38.6)	2.04 ± 0.80	3.13 (.002)
	No	102 (61.4)	1.67 ± 0.68	
Occupation	Regular[a]	47 (28.3)	2.11 ± 0.65	3.75 (.012) a > b,c,d
	Nonregular[b]	16 (9.6)	1.69 ± 0.68	
	Student[c]	22 (13.3)	1.74 ± 0.64	
	None[d]	81 (48.8)	1.68 ± 0.80	
Marital ststus	Single	130 (78.3)	1.77 ± 0.67	1.24 (.298)
	Married	29 (17.5)	1.88 ± 0.50	
	Divorce	6 (3.6)	2.34 ± 0.37	
	Bereavement	1 (0.6)	1.84 ± 0.00	
Type of household	With family[a]	123 (74.1)	1.70 ± 0.74	7.08 (.001) a,b < c
	Alone[b]	24 (14.5)	2.01 ± 0.57	
	Housing facilities[c]	19 (11.4)	2.32 ± 0.80	
Care of primarily	Parents	147 (83.7)	1.82 ± 0.69	1.10 (.284)
	Etc	16 (9.7)	1.37 ± 1.15	
Diagnosed	SSD[a]	60 (36.1)	2.06 ± 0.70	7.08 (.001) a > b,c
	Bipolar disorder[b]	68 (41.0)	1.77 ± 0.74	
	Depressive disorder[c]	38 (22.9)	1.51 ± 0.72	
Duration of Illness (year)	5	76 (45.7)	1.78 ± 0.84	1.73 (.163)
	6~10	41 (24.7)	1.69 ± 0.69	
	11~19	22 (13.3)	1.83 ± 0.56	
	≥ 20	27 (16.3)	2.09 ± 0.69	
		9.79 ± 9.46		

SSD=schizophrenia spectrum disorder.

those with 4~9 points were 57 people (34.3%). The mean score for BCE was 6.14 ± 3.06 out of 10 points. Also, the mean score for community integration was 2.60 ± 0.65 out of 5 points, and the mean score for resilience was 1.81 ± 0.75 out of 4 points.

Correlations between adverse childhood experiences, benevolent childhood experiences, community integration, and resilience among the participants

The analysis results of correlations between adverse childhood experiences (ACEs), benevolent childhood experiences (BCEs), community integration, and resilience among the participants are shown in Table 3. Resilience was negatively correlated with ACEs ($r = -.46$, $p < .001$), but it showed a positive correlation with BCEs. In addition, resilience had a positive correlation with community integration.

Factors affecting resilience among the participants

To identify factors affecting resilience among the participants, multiple regression analysis was conducted. Among general and disease-related characteristics, the variables that were found to

Table 2. Discriptive statistics of study Variables (*N*=166)

Variables	M ± SD	Min	Max	Range	n	%
Adverse childhood experiences	2.72 ± 2.24	0	9	0~9		
0†					36	21.7
1~3†					73	44.0
≥ 4(4~9)†					57	34.3
Benevolent childhood experiences	6.14 ± 3.06	0	10	0~10		
Community integration	2.60 ± 0.65	1.26	4.33	1~5		
Physical integration	3.36 ± 0.94	1.08	5	1~5		
Social integration	1.97 ± 0.75	1	5	1~4		
Psychological integration	2.49 ± 0.95	1	5	1~5		
Resilience	1.81 ± 0.75	1	25	0~4		

†Adverse childhood experiences cumulative Score.

Table 3. Correlations Among Childhood Experiences, Benevolent Childhood Experiences, Family Support, Community Integration and Resilience (*N*=166)

Variables	1	2	3
	r (*p*)	r (*p*)	r (*p*)
Adverse childhood experiences	1		
Benevolent childhood experiences	-.51 (< .001)	1	
Community integration	-.36 (< .001)	.47 (< .001)	1
Resilience	-.46 (< .001)	.57 (< .001)	.57 (< .001)

have a signficant effect on resilience were treated as dummy variables. Then, ACEs, BCEs, and community integration were entered as independent variables to perform multiple regression analysis. The results of multiple regression analysis are shown in Table 4.

Testing for the assumptions of regression analysis was performed prior to regression analysis. As a result, the Durbin-Watson statistic was 1.856, which is close to 2, indicating that there was no autocorrelation between the error terms of the model. In addition, the normality and homoscedasticity of residuals were examined through the normal probability plot and the residual plot. The residual plot was close to a 45-degree straight line, and the residual plot showed that all the residuals were evenly distributed around 0, showing that the normality and homoscedasticity of residuals were satisfied. As a result of testing for multicollinearity, the values of tolerance between independent variables were greater than 0.1, ranging from .675 to .961, and the variance inflation factor (VIF) values ranged from 1.041 to 1.481, not exceeding the threshold value of 10, so it was confirmed that there was no problem of multicollinearity.

As a result of multiple regression analysis, the most significant factor affecting resilience in psychiatric patients was found to be community integration (β = .30 p < .001), followed by BCEs (β = .27, p < .001), ACEs (β = -.23, p = .001), 'housing facilities' in type of household (β = .17, p = .003), ages 4o-49 (β = .15, p = .009), and 'living alone' in type of household (β = .12, p = .034). These factors explained 50.4 % of the total variance, and the regression model was statistically significant (F = 28.91, p < .001).

Discussion

In this study, the most significant factor affecting resilience in psychiatric outpatients was found to be community integration, followed by benevolent childhood experiences (BCEs), adverse childhood experiences (ACEs), 'housing facilities' in type of household, ages 40-49, and 'living alone' in type of household.

In this study, the mean score for resilience in the participants was 1.81 out of 4 points. A previous study of schizophrenia patients using mental rehabilitation facilities and mental health welfare centers used the same tool, and reported that the mean score for resilience was 56.59 points (converted score: 2.23 points) [20], which is higher than the level of resilience in this study. In this regard, a relatively lower level of resilience in the participants of this study is thought to be related to the different characteristics of the participants. In other words, in this study, the participants were patients diagnosed with schizophrenia spectrum disorder, bipolar disorder, or depressive disorder, but in the previous study of schizophrenia patients [20], the participants only included schizophrenia patients and were people using mental health facilities or mental health welfare centers, so it is thought that social contact and the formation of social networks facilitated social adjustment, which resulted in a higher score for resil-

Table 4. Factor Influencing on Resilience (*N*=166)

Variables	B	SE	β	t	*p*
(Constant)	.60	.22		2.71	.007
Community integration	.34	.08	.30	4.52	.000
Benevolent childhood experiences	.66	.17	.27	3.90	.000
Adverse childhood experiences	-.77	.22	-.23	-3.44	.001
Type of household(With family)†	.40	.14	.17	2.98	.003
Age (40~49)‡	.26	.10	.15	2.64	.009
Type of household (Alone)†	.26	.12	.12	2.15	.034
R^2 = .522, Adj. R^2 = .504, F = 28.91, p < .001					

†Dummy Variables for Type of household (reference group): Housing facilities (With family, Alone).
‡Dummy Variables for Age (reference group): 40~49 (20~29, 30~39, ≥ 50).

ience than in this study. However, in this study, the participants were psychiatric outpatients, and it was not possible to examine whether the participants were using mental health facilities or mental health welfare centers. Thus, in a follow-up study of psychiatric outpatients (hereafter, psychiatric patients), it is necessary to examine the use of mental health welfare centers.

Community integration was found to be the most significant influencing factor for resilience in psychiatric patients. Although there are limitations in comparing study findings due to the lack of previous studies using the same tool, a study of resilience and community integration in veterans with the experience of traumatic events reported that community integration is an influencing factor for resilience, and social participation was linked to a stronger correlation between community integration and resilience, so the study emphasized social connectedness as well as the formation of social relationships that could lead to social participation [21]. In addition, a prior study analyzed the factors affecting resilience in female psychiatric patients by using an external integration scale centered on the community, and the study also found that social participation is an influencing factor for resilience in psychiatric patients [16]. As a result of the deinstitutionalization policy and the establishment of a community-centered service system, the proportion of psychiatric patients living in the community is gradually increasing, but when psychiatric patients need information on mental health services as well as information on community services and programs, they need to find it on their own in most cases [1]. This situation seems to indicate that since the social participation of psychiatric patients usually occurs only through their voluntary participation, their difficulty in accessing information on the method of social participation acts as an obstacle to a smooth process of community integration. Therefore, in consideration of mentally ill people's limited access to information on social participation, there is a need to develop and apply community integration programs as a strategy for helping people with mental disorders to live independently in the community.

The second significant influencing factor for resilience among the participants was benevolent childhood experiences (BCEs). There are few prior studies of BCEs in psychiatric patients, so there are limitations in comparing research findings, but a study of BCEs in general Portuguese adults [22] reported that the mean score for BCEs was 8.92 points, which is higher than 6.12 points in this study. These research results are similar to the claims of previous studies reporting that a low level of BCEs cannot offset the impact of ACEs, so it cannot protect individuals from the association between ACEs and mental disorders by reducing the association [12], and a low level of BCEs may influence resilience, and thereby cause people to become mentally vulnerable [9]. In other words, it can be inferred that a lower level of BCEs in psychiatric patients than in the general population affected resilience, leading to the state of mental illness, a mentally vulnerable state. In particular, considering that the recall of BCEs has been shown to have a positive impact on the levels of depression, anxiety, and stress symptoms [23], it is necessary to investigate the full spectrum of various BCEs through qualitative research and replication research on the BCEs of mentally ill people, and explore ways to improve resilience through interventions using recall.

The third factor affecting resilience was adverse childhood experiences (ACEs). The mean score for ACEs was 2.72 out of 10 points, and 78.3% of the participants reported having one or more ACEs. A study of schizophrenia patients found that 94% of the participants had one or more ACEs [24]. Also, a meta-analysis study of ACEs reported that people exposed to 4 or more ACEs were 2 times more likely to develop a mental disorder [18]. In this study, the proportion of psychiatric patients with 4 or

more ACEs was 34.3%. In this connection, a study of adverse childhood experiences in the general adult population found that the rate of ACEs was 65.8%, and people exposed to 4 or more ACEs took up 18.6% of the participants [25]. These findings about ACEs are consistent with the results previous studies about abusive experiences. In particular, it has been reported that the level of abuse experiences is higher in people with mental illness than in the general population, and a higher level of abuse experience increases the likelihood of drug and alcohol uses, suicidal attempts, and experiencing depressive emotions in adulthood [8]. It has also been found that a higher level of abuse experience is associated with higher risk of development of schizophrenia in the mental illness risk group [26], and it has a significant impact on positive psychotic symptoms [27]. Therefore, proactive strategies should be developed and applied to assess ACEs in people with mental illness, develop intervention programs for promoting psychological recovery based on the assessment results, identify people who were exposed to ACEs and vulnerable in mental health at an early stage and provide them with preventive mental health services.

The fourth factor affecting resilience was found to be 'housing facilities' in the type of household among the general characteristics of the participant. The housing facilities for people with mental illness include 'living facilities' and 'group living homes' [2]. 'Living facilities' provide residence, living guidance, and job rehabilitation services for people with mental illness who have difficulty living at home [2]. 'Group living homes' provide residence for people with mental illness who have difficulty living completely independently but have some degree of self-reliance, and develop their ability to live independently through group living [2]. Regarding the results of this study, it is thought that mentally ill people living in the above-described housing facilities are highly likely to have had opportunities to get information about various activity programs such as counseling, education, job rehabilitation, leisure activities, cultural activities, and social participation for getting a job and social life in the community, and they are also highly likely to have participated in those programs. Thus, it is presumed that appropriate and continuous social support in the community influenced resilience in mentally ill people living in housing facilities.

The fifth factor affecting resilience was ages 40-49 among the general characteristics of the participants. In contrast, a study of patients with mental illness [5] and a study of schizophrenia patients [14] reported that there was no difference in resilience according to age. However, a higher level of resilience in the 40-49 age group may be attributed to the fact that mentally ill people in their 40s need to overcome difficulties in performing their roles at home and in the society and manage their illness at the same time through the accumulation of experiences related to mental illness as well as life experiences. These results are similar to the findings of a study on schizophrenia [28], which reported that as age increased, symptoms improved and became easier to manage, and the participants showed more optimistic responses about the future. In other words, these study findings suggest that some middle-aged psychiatric patients may accept their illness, maintain stability in the illness process, and achieve a high level of resilience if appropriate support is provided. In this respect, there is a need to continuously provide resilience enhancement education programs and social support for people with psychiatric disabilities.

Lastly, one of the factors affecting resilience was found to be 'living alone' in housing type among the general characteristics of the participants. According to a survey of the status of community living and treatment of people with psychiatric disabilities, among people with psychiatric illness, those living alone in the community took up 59.9%, and 32.0% of the participants answered that 'they should live alone in an independent residence' in response to the question about the people they want to live with and the type of residence they want in order to live a life they desire, showing that the group preferring living independently took up the largest proportion among people with psychiatric illness [1]. For people with mental illness, living independently means that they need to independently perform their social role in the community on the basis of family support and support from the community [29]. Thus, it is likely that when mentally ill people live independently, levels of independence and self-reliance are increased for the need to acquire essential skills for living such as symptom management, and maintain daily life, and these changes in independence and self-reliance may influence resilience. However, if people with mental illness experience isolation from people around them because of impairment in social functioning and social prejudices and misunderstanding due to the relapses of mental illness and the process in which mental disorders become chronic, they become socially alienated and have great difficulty in living independently [29]. Therefore, to protect and strengthen resilience in psychiatric patients that live independently, a customized support system should be established in consideration of the fact that the level of resilience in psychiatric patients may be influenced by the level of family support for the patients, type of disability, and quality of services.

Since the participants of this study were selected from the psychiatric patients of a general hospital by convenience sampling,

there are limitations in the generalization of the study findings, and thus follow-up research should be conducted in a more meticulous manner. In addition, since the survey of benevolent and adverse childhood experiences were conducted by the retrospective recall method, there is a possibility that there were errors in recollections or underestimation. Lastly, this study did not examine the participants using social rehabilitation facilities or mental health centers, so there were limitations in the accurate measurement of resilience and community integration.

Conclusions

In this study, community integration, benevolent childhood experiences (BCE), adverse childhood experiences (ACE), housing facilities as a type of household, ages 40-49, and living alone as a type of household were identified as influencing factors for resilience in psychiatric patients. These factors showed an explanatory power of 52.2% for resilience. A strength of this study is that this research attempted a multidimensional analysis of factors influencing resilience in patients with mental illness by considering childhood experiences, which belong to external environmental factors experienced during the past developmental processes during childhood, along with community integration, which is an external environmental factor that has close interactions with the present. The findings of this study are expected to serve as basic data for developing resilience enhancement programs to provide interventions related to individual characteristics such as type of household and age in consideration of the changeability of resilience. Meanwhile, the results of this study suggest that it is required to develop and provide interventions for promoting community integration that may have a positive impact on social integration and recovery by strengthening the resilience of patients with mental illness, and there is a need to increase the community awareness of the importance of the influence of exposure to adverse childhood experiences and benevolent childhood experiences that affect resilience in mentally ill people. Based on study findings, this study presents the following suggestions.

First, considering that social participation of people with mental illness is currently limited to those who voluntarily participate in social activities, in order to increase accessibility to community service programs for people with mental disabilities, information on education about illnesses and symptom management and how to use mental health services from community organizations upon discharge should be provided using digital platforms, and it is also necessary to provide training programs to maintain social relationships with community members in order to promote community integration. Second, there is a need to establish the Korean standardized versions of the scales for the assessment of adverse and benevolent childhood experiences. Third, it is necessary to establish a preventive system that provides early mental health services by applying adverse childhood experiences to the screening process for not only people with mental illness but also people with mental health problems in various community organizations such as schools, industries, the military, and social welfare organizations. Additionally, it is also required to develop strategies to strengthen resilience by providing social psychological interventions, such as a listening program that can help people with mental health problems identified by a screening process to recall memories of benevolent childhood experiences. Fourth, it is necessary to establish an institutional support system that can bolster resilience by providing a stable residential environment by identifying the specific needs and preferences of mentally ill people regarding types of living arrangements in providing housing support, and by establishing a customized support system that links them with peer supporters of a similar age who have experienced the recovery process through rehabilitation and treatment.

ORCID

Keum Ran Hong, https://orcid.org/0009-0007-3219-0389
Hye Kyung Lee, https://orcid.org/0000-0002-8135-9378

Conflict of interest

The authors declared no conflict of interest.

Funding

None.

Authors' contributions

Keum Ran Hong contributed to conceptualization, data curation, formal analysis, funding acquisition, methodology, project administration, visualization, writing - original draft, review & editing and validation. Hye Kyung Lee contributed to conceptualization, methodology, project administration, visualization, writing - original draft, review & editing and validation.

Data availability

Please contact the corresponding author for data availability.

Acknowledgments

This article is based on a part of the first author's master's thesis from Kongju national University.

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