

## SELF-EFFICACY, RESILIENCE, AND LONELINESS IN PEOPLE WITH SCHIZOPHRENIA

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### ABSTRACT

Self-efficacy and resilience have been associated with loneliness in schizophrenia. Studies reported that people with schizophrenia have low self-efficacy, resilience, and experience a greater level of loneliness, which could lead to worsening symptoms. However, inpatient and outpatients' differences in these variables have rarely been investigated. This study aimed to compare self-efficacy, resilience, and loneliness among people with schizophrenia from outpatients and inpatients. A total of 130 patients diagnosed with schizophrenia were included in this study. The data were collected using the socio-demographic questionnaire, the General Self-Efficacy Scale (GSE), Connor-Davidson Resilience Scale 10 (CD-RISC 10), and the University of California Los Angeles (UCLA) Loneliness Scale Version 3. The Chi-Square, Mann-Whitney, and the t-test were used for data analysis. The results indicated that inpatient has higher self-efficacy and resilience than outpatients. Interestingly, inpatient significantly has lower loneliness than outpatients. The findings support the evidence of psychological differences in schizophrenia and provide a better understanding of different settings with this diagnosis. In the clinical practice, these results suggest developing interventions to enhance resilience and self-efficacy in schizophrenia.

**Keywords:** Loneliness, Resilience, Self-Efficacy, Schizophrenia

### INTRODUCTION

Schizophrenia is a severe mental disorder characterized by disorganized thinking, emotions, language, and behavior that affected more than 20 million people around the world (WHO, 2019). Schizophrenia is one of the top 15 leading causes of disability worldwide (G.B.D, 2018). The stigma attached to this disorder, shame, and self-labeling often make patients reluctant to ask for help, which results in decreased self-esteem and an increase in negative

symptoms, leading to risky behavior (Lorizo, 2014), (Rusch, 2014)

Self-efficacy is the confidence to perform a behavior or specific task that motivates individuals to successfully carrying out social and everyday living skills (Bandura, 1997). Studies found that people with schizophrenia have low self-efficacy (Cardenas, 2013), (Kurtz, 2013). Self-efficacy found significantly correlates with negative symptoms, social functional capacity, and greater quality of life

that mediates by emotional discomfort in people with schizophrenia (Dziwota, 2018)-(Vaskin, 2015). Self-efficacy, self-esteem, and self-stigma were highly associated (Pasmatzi, 2016). Low self-esteem and high self-stigma could lead to depression and suicidal risk (Yoo, 2015).

Resilience is defined as the process of adapting from adversity, stressful situation, and traumas (Association, 2020). Previous studies mentioned that people with schizophrenia showed a low level of resilience (Lzydorczyk, 2019)-(Rucci, 2017). Resilience was influenced by self-esteem (Kas, 2016) and self-esteem was highly associated with self-efficacy (Pasmatzi, 2016). Factors such as age, gender, coping strategy, traumatic experience, and internalized stigma also influenced resilience (Marco, 2017), (Mizuno, 2016). High resilience was associated with improved mental and physical well-being (Lee, 2019), while low resilience was associated with depression (Rossi, 2017).

Loneliness is defined as an emotional distress experience that goes along with the perception of unsatisfying social relationships. Perceived unsatisfying relationships, are caused by the felt sense of social isolation and unsatisfied need for affection in current relationships (Caciopo, 2014), (Richard, 2017). Studies showed that people with schizophrenia reported greater loneliness than healthy populations (Eglit, 2018)-(Tremeau, 2016). Loneliness was affected by self-efficacy, where the lower self-efficacy tends to increase the level of loneliness (Shioda, 2016). Loneliness was also found to mediate psychotic symptoms (Michalska, 2018) and predicted comorbid illness, such as substance abuse or dependence (Tremeau, 2016). The previous study also mentioned that

greater loneliness is associated with more severe depression and anxiety symptoms and poorer remission from depression (Wang, 2018).

Even though self-efficacy, resilience, and loneliness among people with schizophrenia are related (Rucci, 2017), the studies that investigated self-efficacy, resilience, and loneliness in outpatients and outpatients setting are limited.

This study aims to compare self-efficacy, resilience, and loneliness between outpatient and inpatients.

## LITERATURE REVIEW

### Understanding Schizophrenia

Schizophrenia is a severe, marked mental disorder with profound disturbances in thinking, affecting language, perception, and sense of self. This includes psychotic experiences, such as hearing voices or delusions, which can cause disturbances in the process of studying, working and daily activities.

### Types Of Schizophrenia

- a. Hebephrenic type schizophrenia A sufferer of Hebephrenic type schizophrenia, also called disorganized type or "chaos" is characterized by symptoms are as follows :
  - 1) Incoherence is a chaotic way of thinking, so that the speech incomprehensible, usually the client's speech is absent
  - 2) their relationship with each other.
  - 3) The realm of feelings (mood, affect), namely the discrepancy between stimulus and response shown by the client.
  - 4) Childish behavior and laughing (giggling), smiling that shows

- complacency or just a smile live it yourself.
- 5) Delusions are unclear and unsystematic (fragmented - broken) is not organized as a unit.
  - 6) Fragmented hallucinations that have no theme organized as one unit.
  - 7) Strange behavior, for example grinning to yourself, shows strange movements, writhing, pronunciation of sentences repetition and a tendency to withdraw completely extremes of social relations.
- b. Catatonic type of schizophrenia
- 1) People who experience the catatonic type will show symptoms symptoms as follows:
  - 2) Catatonic stupor, namely the client's attitude of not caring environment, lazy to do activities so it looks like "statue", or silence (mute).
  - 3) Catatonic negativism, namely resistance that seems without motive for all orders or attempts to act himself.
  - 4) Catatonic rigidity is an attitude maintains the rigor of various attempts to move himself.
  - 5) Catatonic noise, namely noisy motor activity, no purposeful, and there is no external stimulation.
  - 6) Catatonic body posture, namely an unnatural or strange attitude. Sufferers also often don't eat or drink, or even sleep for days, which can cause dehydration and worsening physical condition can result in death.
- c. Disturbances in feelings and behavior
- Such as anxiety erratic, anger, quarrelsome, arguing and acts of violence. Sufferers also feel confused about gender identity or fear suspected of being a homosexual.
- d. Residual type of schizophrenia
- These are remnants of the symptoms of schizophrenia not that prominent. For example, the nature of feelings is dull and flat and incompatible (inappropriate), withdrawal from social interactions, eccentric behavior, illogical thoughts and no rational or violation of thought associations. Despite the symptoms of schizophrenia inactive or not showing positive symptoms schizophrenia, the family should remain alert and Get medical treatment so you can carry out daily life functions day optimally.

#### RESEARCH METHODOLOGY

This cross-sectional study was conducted among people with schizophrenia inpatient in a psychiatric hospital in Central Java Province, Indonesia, and outpatients from around Indonesia. The respondents were recruited through random sampling. A total of 130 patients; 65 were inpatients and 65 were outpatients. The inclusion criteria of respondents were (G.B.D, 2018) aged between 18 and 60 years old, and (2) voluntarily took part in the study.

The data were collected in 2019-2020 using the socio-demographic questionnaire, the General Self-Efficacy Scale (GSE), Connor-Davidson Resilience Scale 10 (CD-RISC 10), and the University of California Los Angeles (UCLA) Loneliness Scale Version 3. The socio-demographic questionnaire was used to report the respondents' characteristics, such as age, gender, marital status, occupational status, income, religion, living situation, history of mental illness in the family, traumatic experience, age of

onset, length of illness, and the number of hospitalization.

The GSE questionnaire was originally in English and developed by Ralf Schwarzer and Matthias Jerusalem (1995). The Indonesian version of this instrument in this study showed  $r=0,460-0,854$  and an alpha coefficient of 0.887. This scale was used to assess general self-efficacy after stressful life events. The Likert scales from 1 (disagree) to 4 (strongly agree) were utilized. The total score ranged from 0 to 40, in which a higher score indicated a higher self-efficacy.

The CD-RISC 10 questionnaire was a short version of the original CD-RISC 25 developed by Connor and Davidson and was already translated into Bahasa Indonesia by Lamsinar (Connor & Davidson, 2016). This instrument was used to test resilience based on patients' evaluation and scored using Likert Scales, ranging from score 0 (strongly disagree) to score 4 (strongly agree). The total score ranged from 0 to 40, where higher scores indicated a higher level of resilience. The Indonesian version of SHS-9 in this study showed  $r=0,53-0,69$  and an alpha coefficient of 0.83.

The UCLA Scale was developed by Russell (1996) and used to assess the loneliness level in patients using 20 items of questions. The total score ranged from 20 to 80, where higher scores indicated a higher level of loneliness. The UCLA Scale used in this study was translated to Bahasa Indonesia with  $r=-0.030-0.487$  and an alpha coefficient of 0.6.

Kolmogorov Smirnov test was performed to investigate the homogeneity of variance and the normality of the data. If homogeneity of variance and the normality were satisfied ( $p>0.05$ ), an independent T-test was performed

to compare the difference between variables. Otherwise, the Mann-Whitney U test was used as the non-parametric counterpart of the T-test. For categorical data, the Chi-Square test was performed. All analyses were conducted using SPSS (Version 25).

The anticholesterol activity of the extract and its fractions was also determined using photometric methods. an area of 5 ml of extract solution with a concentration of 10 each; 12; 14; 16; 18; 20 ppm added 5 ml of 180 ppm Cholesterol solution. The solution was homogenized with a Vortex, waited 60 minutes at 37C, and centrifuged at 4000rpm for 5 minutes to produce the supernatant. React the supernatant with 2 ml of FeCl<sub>3</sub> reagent in glacial acetic acid, wait 10 minutes at room temperature, add 1 ml of H<sub>2</sub>SO<sub>4</sub>. Next, homogenize again and leave at room temperature for 30 minutes. The final step is measuring the remaining free cholesterol levels at the 526nm wave from a spectrophotometer and a calibration curve that has been created previously (Kurnia et al, 2019; Puspitasari, 2014).

## RESEARCH RESULTS

Table 1 shows the demographic characteristics of respondents from outpatient and inpatient groups. The majority of respondents from both groups were males, single, had <Rp 2.300.000 income, Moslem, and lived with the family. Mann-Whitney test showed that there was no significant difference. However, the Chi-Square test showed that there were significant differences in educational status, employment status, history of mental illness in the family, and traumatic experience with  $p= <0.005$ .

Table 1. Demographic Characteristics Of Respondents

Demographic characteristics	Outpatient (n=65)		Inpatient (n=65)		p
	f	%	f	%	
Age	Mean±SD=28.68±9.5		Mean±SD=28.09±10.8		0.821
Gender					0.134
Male	40	61.5	48	73.8	
Female	25	38.5	17	26.2	
Marital status					0.729
Single	47	72.3	44	67.7	
Married	15	23.1	16	24.6	
Divorced	3	4.6	5	7.7	
Educational status					0.000
No formal education	0	0	3	4.6	
Did not finish elementary school	1	1.5	4	6.2	
Elementary school	0	0	13	20	
Junior high school	3	4.6	24	36.9	
Senior high school	26	40	19	29.2	
University	35	53.9	2	3.1	
Employment status					0.000
Unemployed	24	36.9	40	61.5	
Employee	8	12.3	3	4.6	
Entrepreneur	6	9.2	10	15.4	
Farmer/Fisherman/Laborer	0	0	12	18.5	
Other	27	41.5	0	0	
Income					0.612
<Rp 2.300.000	55	84.6	57	87.7	
>Rp 2.300.000	10	15.4	8	12.3	
Religion					0.361
Moslem	58	89.3	63	97	
Christian	3	4.6	1	1.5	
Catholic	3	4.6	1	1.5	
Other	1	1.5	0	0	
Living situation					0.344
Alone	7	10.8	4	6.2	
With family	58	89.2	61	93.8	
History of mental illness in family					0.008
Yes	27	41.5	13	20	
No	38	58.5	52	80	
Traumatic experience					0.000
Yes	48	73.8	26	40	
No	17	26.2	39	60	

Table 2 shows the differences in the age of onset, length of illness,

and frequency of hospital stay between the two groups ( $p < 0.05$ ),

where the inpatient shows a higher mean score of the age of onset and frequency of hospital stay.

**Table 2. Clinical features of respondents**

Clinical features	Outpatient <i>n</i> =65	Inpatient <i>n</i> =65	p
	Mean±SD	Mean±SD	
Age onset	20.37±11.3	26.74±8.2	0.000
Length of illness	7.4±8.1	4.8±6.2	0.040
Frequency of hospital stay	1.75±4.6	2.94±2.1	0.000

Table 3 shows that there was a significant difference in self-efficacy, resilience, and loneliness between the two groups with  $p < 0.005$ . The inpatient group shows

a higher mean score of self-efficacy and resilience compared to the outpatient group, while the outpatient group shows a higher mean score of loneliness.

**Table 3. The Comparison Of Mean And Standard Deviation Between Respondents From Outpatient And Inpatient**

Variable	Outpatient Mean±SD	Inpatient Mean±SD	p
Self-Efficacy	26.6±5.5	28.8±4.4	0.005
Resilience	22.3±7.6	25.9±8.2	0.003
Loneliness	53.3±11	45.1±7.7	0.000

This study aimed to compare self-efficacy, resilience, and loneliness among people with schizophrenia between outpatient and inpatient groups. The findings showed that there were significant differences between inpatient and outpatient on self-efficacy, resilience, and loneliness.

In this study, inpatient has higher self-efficacy than outpatients (28.8±4.4 and 26.6±5.5, respectively). The mean score of self-efficacy also higher than in previous studies. A study by Üstün, Küçük, and Buzlu (2018) found that

there was no significant difference in self-efficacy among people with schizophrenia who regularly participate in the rehabilitation programs and those who did not (61.28±12.09 and 62.82±11.16, respectively). The study by Villagonzalo et al. (2018) found that self-efficacy among people with mental illness (outpatients) was 26.64±6.08. Kumari, Gupta, and Sood (2017) mentioned that people with schizophrenia in a tertiary care setting showed poor self-efficacy scores (25.56±8.33).

## DISCUSSION

Interestingly, the findings of this study revealed that inpatient has higher resilience than outpatients. To our knowledge, there was no previous study compare

resilience between these groups. Our findings contradict our hypothesis that resilience in outpatients would have higher resilience than inpatients. The



previous study showed that people with schizophrenia in rehabilitation wards revealed a low level of resilience (63.01 out of 100 points) as evaluated using the resilience scale for adults (RSA) (Rucci, 2017). A similar result was found in Deng et al's study (2018) where patients with schizophrenia showed the lowest level of resilience compared to patients with bipolar disorder and healthy control ( $48.64 \pm 17.22$  with CD-RISC 25). Chen et al found the average CD-RISC 25 score for hospitalized patients with schizophrenia or schizoaffective disorder was 54.4 (SD 22.5) (Chen et al., 2019). However, a study by (Lee, 2019) revealed that people with schizophrenia in the outpatient setting showed a low level of resilience with a slightly similar mean score with this study ( $23.4 \pm 8.2$  and  $22.3 \pm 7.6$ , respectively) and subjects with severe trauma tend to show lower scores of CD-RISC 10 compared to those with low trauma. As described by the patients, the elements of family, work, stimulation, stress, social ties, stigma, lifestyle, physical health, the mental health system, and mental health professionals were identified as meaningful in promoting resilience because they provided challenge and/or support within learning to live with schizophrenia (Wang, 2018).

Compare to outpatient, our study found that inpatient significantly has lower loneliness. This finding does not support the previous study that inpatient with schizophrenia and outpatient had no significant difference ( $43.61 \pm 9.07$  and  $47.19 \pm 10.88$ ) (Tremeau, 2016). However, in that study, the inpatients showed a slightly lower loneliness score compared to the outpatients. (Tremeau, 2016) found that loneliness predicted several comorbidities, such as drug abuse

and hypertension, which could lead to medical and psychiatric consequences. The findings also showed that loneliness seems related to social support or network (Tremeau, 2016). Previous studies found that perceived social support from friends has a significant effect on loneliness, which leads to a better quality of life and functioning (Wang, 2018). Hence, inpatients might have lower loneliness because they receive social support from other patients.

This study has several limitations. First, there are significant differences in patient characteristics, namely educational status, employment status, family history of mental illness, and traumatic experiences ( $p = <0.005$ ). Traumatic events may have a significant effect on our study findings because outpatients in our study had more experience of traumatic events than inpatients. Several studies have shown that traumatic events have a correlation with self-efficacy, resilience, and loneliness in people with schizophrenia (Lee, 2019), (D'amico, 2013) Shrivastava & Desousa, 2016; Yaghubi, 2020). Second, this study used a small sample size. Therefore, further studies with a larger sample are needed. Third, our study did not include social support that might have influenced the results. Therefore, further studies should investigate the role of external factors, such as social support, to obtain more specific results.

## CONCLUSION

This study reveals significant differences in self-efficacy, resilience, and loneliness between the outpatient and inpatient groups of people with schizophrenia, where the inpatient shows higher self-efficacy and resilience, while the

outpatient shows a higher mean score of loneliness. Our findings have added knowledge to the difference between inpatient and outpatient diagnosed with schizophrenia. Considering the results, further study is needed to investigate the larger sample size and intervention to promote self-efficacy, resilience, and loneliness in schizophrenia.

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