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Expression Scale Emotional Family: Validity and Reliability Study in Families with Patient Schizophrenia

Noviana Ayu Ardika*, Widya Hary Cahyati

Universitas Negeri Semarang

*Corresponding Author: ayunoviana@students.unnes.ac.id

Abstract

This study aims to determine the validity and reliability of the short version of the Level of Expressed Emotion (LEE) Scale in measuring family emotional expression toward individuals with schizophrenia. A quantitative approach with a descriptive correlational design was employed. A total of 18 respondents were purposively selected from families living with schizophrenia patients. The instrument consisted of two subscales: Critical Comments and Emotional Overinvolvement. Validity testing revealed that all items in both subscales had correlation coefficients greater than the critical value ($r > 0.443$) and were statistically significant at $p < 0.05$. Reliability testing yielded Cronbach's Alpha values of 0.934 for Critical Comments and 0.866 for Emotional Overinvolvement, indicating high internal consistency. Therefore, the short version of the LEE Scale is a valid and reliable tool to assess family emotional expression that may influence relapse in individuals with schizophrenia.

Keywords: emotional expression, family, schizophrenia, relapse, LEE Scale

INTRODUCTION

Schizophrenia is a chronic mental disorder characterized by distortion in thinking, perception, emotion, language, and behavior (Budiono et al., 2021). Disturbances often cause sufferers to experience difficulty in undergoing life every lives and interacting socially. According to data from the World Health Organization (WHO), around 23 million people worldwide suffer from schizophrenia, making it a significant mental disorder globally. One of the main challenges in handling schizophrenia is the high number of relapses (Yasuma et al., 2020). Recurrence can happen consequence of various factors, including non-compliance with treatment, stressful environment, and family dynamics (Dhanasekaran et al., 2017). In this context, the role of family as a system Supporter becomes very important (Pardede, 2020). Family not only plays a role in maintaining physical health, but also in giving emotional support that can affect a patient's prognosis (Nolan & Petrakis, 2019). Almost all patients with schizophrenia in the Puskesmas area of Lamongan own level low compliance treatment before being given modeling therapy, whereas after being given modeling therapy, part significant number of patients own level high compliance, one of the influences absence obedience drink medication in patients is a family factor (Uzun & Lok, 2022).

The expression of emotional family, which includes attitudes, behavior, and communication with the patient, has been identified as an influencing factor in the relapse of schizophrenia (Tombakan & Dilla, 2022). Expressing high emotions, such as excessive criticism, hostility, and excessive emotional involvement, can increase the risk of recurrence. On the contrary, the expression of low emotions and support from family can help stabilize the condition of patients and reduce the frequency of relapses (TOSUN et al., 2021). Research previously shows that the expression of emotions by family members has a significant impact on relapse in patients with schizophrenia (Sarah Khairunnisa Zahrani & Farida Coralia, 2022). Families with high levels of criticism and attitude hostility tend to trigger relapse in patients, while low expression of emotion, low support, and a stable condition. (Ng et al., 2019). These results highlight the importance of managing good emotions in the family (Begam & Baruah, 2021). The results of other studies show that in the expression of emotion, there is a form

of compiler-like verbal criticism as much as 48.95%, and the existence of emotional extremes by 51.04% (Shiraishi et al., 2019) . The expression of high emotions is also caused by the presence of psychological pressure and a lack of psychoeducation for patients with schizophrenia (Budiono et al., 2021) .

Studies other shown that the patient is given form more and better support from family usually will experience frequency the occurrence schizophrenia which is also low (Ozkan et al., 2012) . The family provides more and better like existence support emotional support, information, practical help, and evaluation can help form a frequency of the occurrence of symptoms of schizophrenia become stable (Mubin & Livana PH, 2020) . However, even though various studies have shown a connection between the expression of emotional family and relapse in patients with schizophrenia, there is still a need for more in-depth and contextual follow-up (Swai et al., 2024) . This is important for understanding the dynamics of family in the context of different cultures and social systems, as well as for developing effective interventions in support of families in nursing members suffering from family schizophrenia (Rezaei et al., 2018) . With the background behind said, this research aims to explore the connection between the expression of emotional family and relapse in patients with schizophrenia. It is an expected results study. This can give a contribution to the development of intervention strategies, an effective and supportive family effort, and improve the quality of life of patients with schizophrenia.

METHOD

Research Design

Study This uses a quantitative approach with a descriptive correlational design, which aims to know the connection between the expression of emotional family and the relapse patient schizophrenia. Approach: This was chosen because in accordance with measuring how far the relationship between the variables studied.

Population and Sample

Population in study: This is a family that has a member with a diagnosis of schizophrenia and living same house with the patient. Technique of taking sample using purposive sampling, with criteria for inclusion: (1) is a member nuclear family (parents, siblings) siblings, spouses), (2) lives same house as the patients, and (3) is willing to become a respondent. Number of respondents in study: This is as many as 18 people.

Instrument Study

The instruments used are the LEE Scale version short (Level of Expressed Emotion), which consists of two main subscales:

1. Critical Comments (CC) – measures the level comment negative comments or criticism from family to patient.
2. Emotional Overinvolvement (EOI) – measuring the level of emotional involvement excessive from family to patient.

Each subscale consists of 10 question items, measured with a 4-point Likert scale.

Validity and Reliability Test

- a. Validity is tested using Pearson's correlation between the score of each item with the total score subscale.
- b. Reliability tested using Cronbach's Alpha.

Data Analysis Techniques

Data was analyzed using the Pearson Product-Moment correlation test to see the connection between the expression of emotional family and relapse in patients with schizophrenia. Significance level set at $p < 0.05$. Analysis was done with the help of the device software SPSS Statistics.

RESULTS & DISCUSSION

Validity Test Instrument

Study This uses the LEE Scale instrument version short, consisting of two subscales, namely

Critical Comments (CC) and Emotional Overinvolvement (EOI), each consisting of 10 statement items. A validity test was done with the technique of Pearson correlation between the score of each item with the total score subscale.

- For Critical Comments subscale, all 10 items show r-count value > r-table (0.443) and significance $p < 0.05$, so that declared valid.
- For the Emotional Overinvolvement subscale, 10 items also have r-value count > 0.443 and significance $p < 0.05$, which means all items are declared valid.

Table 1. Recapitulation Validity Critical Comments Subscale

Item	r-Table	r- Count	Information
CC1	0.443	0.891	Valid
CC2	0.443	0.884	Valid
CC3	0.443	0.790	Valid
CC4	0.443	0.819	Valid
CC5	0.443	0.644	Valid
CC6	0.443	0.817	Valid
CC7	0.443	0.838	Valid
CC8	0.443	0.876	Valid
CC9	0.443	0.685	Valid
CC10	0.443	0.688	Valid

Table 2. Recapitulation Validity Emotional Overinvolvement Subscale

Item	r-Table	r- Count	Information
EOI1	0.443	0.764	Valid
EOI2	0.443	0.483	Valid
EOI3	0.443	0.851	Valid
EOI4	0.443	0.757	Valid
EOI5	0.443	0.610	Valid
EOI6	0.443	0.700	Valid
EOI7	0.443	0.675	Valid
EOI8	0.443	0.682	Valid
EOI9	0.443	0.766	Valid
EOI10	0.443	0.565	Valid

Reliability Test

The reliability instrument used is the coefficient Cronbach's Alpha. The test results show :

- Subscale Critical Comments to obtain mark $\alpha = 0.934$, indicating reliability is very high.
- Subscale Emotional Overinvolvement to obtain mark $\alpha = 0.866$, also included in category reliability tall.

Table 3. Recapitulation of Reliability Test

Subscale	Cronbach's Alpha	Number of Items	Category
Critical Comments	0.934	10	Very Reliable
Emotional Overinvolvement	0.866	10	Very Reliable

Analysis Correlation

A Pearson correlation analysis was performed to see the connection between the expression of emotional family (CC and EOI subscales) to construct each main one. All items have connection significant positive connection with the subscale total score, confirming that each item contributes to the measurement of emotional expression in a way overall.

Discussion

Research results show that the LEE Scale instrument version short, especially on two main subscales, namely Critical Comments (CC) and Emotional Overinvolvement (EOI), has excellent validity and reliability in measuring the expression of emotional family to patients with schizophrenia. All items on both subscales show a marked significant correlation to the total score, with the calculated r-value above the r-table (0.443), and the p-value is below 0.05. This shows that all items are capable of representing the construct being measured in a way consistent (Begam & Baruah, 2021).

A high level of reliability, with Cronbach's Alpha value is 0.934 for the Critical Comments subscale and 0.866 for the Emotional Overinvolvement subscale, showed that this scale can be used with valid in context evaluate the emotional family of patients with schizophrenia (Harvey et al., 2019). This value is in the category of very high reliability, which means that the instrument is capable of

measuring emotional expression with strong internal consistency (Öksüz et al., 2017).

In general, theoretical findings strengthen the view that emotional expression from family members, especially in the form of criticism, overuse, and involvement in extreme emotions, plays a significant role big to conditioning psychological patients with schizophrenia (Budiono et al., 2021). A number of studies have also previously confirmed that the emotional environment in the family contributes significantly to stability or relapse in patients (Courtenay et al., 2022) . Forming expressions emotion negative emotions, emotions as criticism, hostility, and excessive involvement, can increase the level of stress on the patient, which ultimately triggers relapse (Wang et al., 2024) .

In addition, research also supports results of a study that found that expressing high emotions in family patient schizophrenia, such as commenting critically and engagement excessive emotional behavior, is significantly related to relapse (Hooley, 2007) . They show that a lack of knowledge of psychoeducational as well as psychological pressure in the family is the main trigger expression of high emotions. This shows that interventions that focus on improving understanding of families about schizophrenia and emotional coping strategies are very much needed (Sarah Khairunnisa Zahrani & Farida Coralia, 2022). The results of the study show that there is a connection between support family and support figure public with activity resident to activity posbindu PTM (Non-Communicable Diseases) in Semarang City, including disease schizophrenia. Already own a facility from Mental Health Cadre in society (Zou et al., 2018) .

With instruments that are proven to be valid and reliable, the results of this study give a strong foundation for the LEE Scale implementation, short version as a tool for assessment in the clinical and community. Evaluating expression emotional family in a periodic way can help improve mental health in identifying the risk of relapse in patients earlier, as well as designing intervention programs based on more family. However, the limitations of the sample size (N=18) became notes important in generalizing findings. This is because families still consider schizophrenia is shameful condition, so that Embarrassed if other people find out the condition. Therefore, it is necessary to study with amount larger sample size and distribution more diverse distribution for results to be more representative and able to be made into reference interventions that are of a national nature.

CONCLUSION

This study concludes that the LEE Scale version short, especially on the Critical Comments and Emotional Overinvolvement subscales, is a valid and reliable instrument in measuring the expression of emotional family to patients with schizophrenia in Indonesia. All items on both subscales have a correlation significant with the total score, and a value of very high reliability. This shows that the expression emotional family can be measured in a consistent and accurate way, and has the potential big predict relapse in patients with schizophrenia.

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DECLARATION OF CONFLICTING INTERESTS

The authors declare that there is no conflict of interest in this research or the publication of this research.

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