

Gratitude training to improve quality of life for schizophrenic family caregivers

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Abstract

This study aims to determine the effect of gratitude training on the quality of life of schizophrenic family caregivers. The design of this study used two groups of pretest-post test with follow-up. The participants in this study were 10 schizophrenic family caregivers aged by 19-60 years. The number of participants in this study were an experimental group of 5 participants, with 4 female participants and 1 male participant (M age = 41.2 years) and a control group, with 4 female participants and 1 male participant (M age = 46.4 years). This study used the quality of life scale (WHOQOL-BREF) developed by the World Health Organization with Cronbach's alpha reliability score of .828. The data analysis used in this study was anava mixed. The results of the analysis showed that the research data was significant at $p = .009$ ($p < .05$) with a partial eta squared value of .553. The results showed that gratitude training 55.3% affected in improving the quality of life of schizophrenic family caregivers. This intervention could be applied to increasing the family caregiver's quality of life in the future.

Keywords

caregivers, family, gratitude training, quality of life, schizophrenia

Introduction

Psychological health, commonly known as mental health, is defined by the World Health Organization (WHO) as an individual's psychological conditions, where they are aware of their ability, able to cope with stress, positively solve problems, work productively and efficiently, and able to contribute to their community. One of the mental disorders commonly found in schizophrenia. According to WHO (2019), schizophrenia is indicated by distortion in thinking, perception, emotion, language, and behaviors. Among the experience commonly reported in individuals with schizophrenia are hallucination (hearing non-existent voices) and delusion. Persons with schizophrenia tend to fail to care for themselves, the family support and attention are thus needed. Family members play a pivotal role in caring for and supporting individuals with mental health disorders. Although pharmacological treatment is the key to the recovery of persons with schizophrenia, family care is also found to significantly affect the progress (Rahmani *et al.*, 2019). The family caregiver is an individual caring for persons with schizophrenia related to medication, companion during a doctor visit, attention, and empathy. While individuals with schizophrenia need attention and positive support from their surroundings, especially their family, some caregiver families lack positive views on caring for schizophrenic family members.

Individuals with schizophrenia are often viewed as a family burden. Difficulty in caregiving for schizophrenic individuals often results in a considerable psychological burden for the family. As some people with schizophrenia find it difficult to suffice their needs, other family members should fully care for them in daily life. Chang *et al.* (2017) state that caregiver

family of persons with schizophrenia suffers from self-esteem, stigma, and more burden compared to caregiver family of persons diagnosed with other mental illness. Caregiving for persons with schizophrenia also brings other emotional impacts to the family caregivers. A qualitative work conducted by Gater *et al.* (2014) revealed that caregiving individuals with schizophrenia may affect caregivers' physical, financial, and interpersonal aspects significantly. The burden in caregiving for individuals with schizophrenia also varies, depending on caregivers' factors. Previous studies also state that being a caregiver of schizophrenic individuals is responsible for individuals' cognitive, social, financial, social, and psychological burdens, including depression and anxiety (Rhee & Rosenheck, 2019).

The study conducted by Martin-Carrasco *et al.* (2016) reports that 83-95% of family caregiver of persons with schizophrenia suffers from a significant burden, poor quality of life, and higher risk of various psychological disorders. In the same vein, Ribé *et al.* (2018) also reported a significant effect of the caregiving burden on caregivers' quality of life. In the Indonesian context, a study conducted by Nuraini *et al.* (2021) found that family caregivers of persons with schizophrenia suffer from burdens. Caregivers' burden is worsened due to limited health literature, lack of financial resources, and limited access to health professionals.

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The term quality of life is defined as individuals' perception of their position amid the cultural and value system prevailing in their environment. Quality of life is also related to one's goal, hope, standard, and attention in life. Individuals with good quality of life are likely to be able to cope with their condition and social environment. On the other hand, individuals with poor quality of life are likely to find it difficult to achieve self-actualization in their social environment. Quality of life is a concept broadly affected by individuals' physical, psychological, autonomy, and social conditions, in addition to their self-confidence and trait (WHO, 2012). The four aspects of quality of life are physical health, psychological health, social relationship, and the environment. Regarding physical health, this condition can be seen from one's physical condition. Individuals' physical health may affect their functions and role in daily life, which may eventually affect their quality of life. Meanwhile, regarding the psychological aspect, this condition tends to affect individuals' thoughts, which may lead to the perception of good quality of life (Fitriani & Handayani, 2020).

The social relationship aspect of quality of life addresses one's social interaction, its quality and quantity of interaction may affect their quality of life. Individuals capable of establishing and maintaining a proper social relationship are likely to have a good quality of life. The fourth aspect of quality of life, i.e. environment, deals with one's financial condition, environmental condition, and cultural conditions that affect their quality of life. A conducive environment may establish a good perception of an individual's life, thus improving their quality of life (Fitriani & Handayani, 2020).

One of the indicators of psychological aspect is spirituality (WHO, 2012). Spirituality refers to one's beliefs that may affect their quality of life. It is believed to be helpful for individuals to overcome difficulties in life, provide life experiences, and contribute to their well being. The study conducted by Repic *et al.* (2018) revealed the importance of the spiritual aspect of quality of life among patients with colostomy. Dimensions related to religious rituals were found to be important for participants. In this regard, their spirituality could be associated with their psychological well-being. Spirituality helps individuals to make hope, have a coping strategy, and overcome existential crises due to their diseases (Forouzi *et al.*, 2017). Wijayanti *et al.* (2020) state that gratitude may affect their quality of life more significantly than the other aspects, implying a relationship between gratitude and quality of life.

According to Emmons *et al.* (2019), in human developmental stages, from childhood to adulthood, various psychological, physical, and relational benefits are associated with gratitude. Gratitude has been proven to contribute to increased happiness and health, also to the lower negative affect, and serves as one of the solutions to life problems. Rusdi (2016) defines gratitude as a condition in which individuals are happy with God's gift. Gratitude could be expressed through statements or behaviors. Gratitude is associated with a response from individuals who believe that their lives are full of God's goodness (Nurfianti, 2018). In Islamic teachings, gratitude is defined in Quran as an expression of being grateful for God's gifts, which can also serve as a means of worship.

Among the gratitude intervention in previous studies, gratitude training is an intervention focusing on gratitude

Table 1. Research Design

	Pretest	Treatment	Post-test	Follow-up
Experimental Group	O1	X	O2	O3
Control Group	O1	-X	O2	O3

O1: Pretest score of quality of life, O2: Post-test score of quality of life, O3: Follow-up score of quality of life, X: Intervention for the experimental group, i.e., gratitude training, -X: No intervention for the control group.

towards God's gifts (Putra *et al.*, 2019). When individuals are grateful for God's gift, they are likely to receive His blessings. Gratitude training is a training that allows individuals to identify their strengths, success, and failure in life and implement gratitude strategies in their daily life (Israwanda *et al.*, 2019). Participants in the experimental group were given gratitude training to improve their quality of life. Changes in gratitude level make participants internalize their gratitude.

The present study took a different standpoint from previous studies. In Ribé *et al.* (2018) study, a significant relationship between caregiving burden and quality of life of caregivers of individuals with schizophrenia. The regression analysis results in their study showed that caregiving burden, social support, and professional support services as the primary predictors of quality of life. Different from Ribé *et al.* (2018) study, the present study applied an experimental method where participants, who were caregivers of persons with schizophrenia, received gratitude training. Five participants in this study were assigned to the experimental group, while the other five participants were assigned to the control group. Based on the description, this study aims to find out whether gratitude training can improve the quality of life of caregivers of individual families with schizophrenia. The present study specifically aims to see whether gratitude training may serve as a psychological intervention to improve the quality of life, particularly among family caregivers of persons with schizophrenia.

Method

Research Design

The present study applied a quasi-experimental method. Applying this method, participants were given intervention and compared to another group with similar characteristics (Shaughnessy, 2012). This experimental study applied a pretest post-test control group design, in which a group receiving intervention serves as the experimental group, while the group without intervention serves as the control group (Kazdin, 2010).

Participants

Participants in this study were Muslim family caregivers of individuals with schizophrenia between 19-60 years of age with caregiving experience of more than 1 year. Ten participants in this study were recruited using the purposive sampling technique and assigned into two groups, experimental and control groups. The data were collected in a sub-district and performed the initial data collection to identify individuals with low or moderate quality of life

Table 2. The Participants Demography

	Name	Gender	Age	Length of Caregiving
Experimental Group	SZ	Female	46	6-10 years
	SA	Female	48	>10 years
	SO	Female	47	6-10 years
	IK	Female	22	1-5 years
	SU	Male	43	>10 years
Control Group	SN	Female	19	>10 years
	MA	Male	59	>10 years
Group	RO	Female	34	6-10 years
	SP	Female	60	6-10 years
	RA	Female	60	1-5 years

scores as participant candidates. Participants in this study were described in Table 2.

Research Instrument

The present study employed a quality of life scale (WHOQOL-BREF). WHOQOL-BREF used in this study was developed and translated by WHO into Bahasa Indonesia (WHO, 2020). This instrument consists of 26 items measuring aspects of quality of life, including physical health, psychological health, social relationship, and environment. The score ranged from 1-5. In this study, participants' quality of life was obtained by summing up their scores, the minimum total score of this instrument is 26, while the maximum score was 130. A higher score indicates a higher quality of life and vice versa. This scale obtained a Cronbach's alpha score of .828, indicating good reliability.

Research Procedure

This study was performed in four stages: pretest, intervention, post-test, and follow-up (two weeks after the intervention). A pretest was performed to recruit family caregivers of persons with schizophrenia with low to moderate quality of life. Participants were asked to consent in order to participate in this study by signing a written informed consent before the intervention session. After the intervention was given, a post-test was performed to measure their quality of life, followed by a follow-up measurement two weeks after the intervention. The measurement aims to see the level of participants' quality of life after the gratitude intervention was given. The intervention material in this study was a gratitude training module adapted from Cahyandari *et al.* (2015). Training gratitude was conducted with an experimental group in three meetings at a one-week interval. The intervention was described in Table 3.

Data Analysis

The data were analyzed using the parametric statistical method, namely anava mixed technique. This technique applies two sub-analysis, within-subject, and between-subject tests. The pretest and post-test scores of each group using the within-subject test were compared, while the between-subject test was applied to compare the experimental group score to the control group scores (Widhiarso, 2011). The data analysis in this study was performed using SPSS 20.0 for Windows.

Table 3. The Gratitude Training

Meeting	Session	Activity
1	1.1	Lecturing and sharing session
	1.2	Games, Sharing, and worksheets I
	1.3	Sharing
	1.4	Lecturing
	1.5	Sharing, discussion, worksheets II, III, and IV
	1.6	Short movies, sharing
2	2.1	Lecturing
	2.2	Sharing and Discussion
	2.3	Sharing, discussion, worksheets II and III
3	2.4	Lecturing, sharing, and practice
	3.1	Lecturing
	3.2	Sharing, discussion
	3.3	Sharing, discussion, worksheets II, III, and IV
	3.4	Lecturing, sharing, and practice
	3.5	Lecturing and sharing session
	3.6	Lecturing

Result

As displayed in Table 4, participants in the experimental group exhibited a significant score increase in post-test. The most significant increase was noticed in participant SZ (18 points increase), while the lowest increase was noticed in participant SA (6 points increase). However, during the follow-up measurement, five participants exhibit a decreased quality of life score. Participant SO exhibited the most significant decrease (10 points decrease), while participants IK and SA exhibited the lowest decrease (1 point decrease). Two participants in this study reported a decreased QOL score in the pretest to post-test phase, namely SN (2-point decrease), SP (4-point decrease), and RA (4-point decrease). The highest QOL score increase was noticed in RO (4-point increase). However, during the follow-up measurement, all five participants reported a significant decrease in quality-of-life score. The most significant increase was reported by SP (9 points), while the lowest increase was shown by MA (1 point).

As displayed in Table 5, the mean score of the experimental group during the pretest was 59.00, while that of the control group was 57.40. This mean difference shows that the quality of life of participants in the experimental group was higher than the control group. The post-test score of the experimental group was 71.40, while that of the control group was 57.60. The experimental group had a more significant increase compared to the control group. The mean score of experimental and control groups during the follow-up was 67.40 and 62.40, respectively. In this regard, the experimental group exhibited a 4.0 score decrease, while the control group exhibited a 4.8 score increase. Overall, the experimental group exhibited a significant increase from pretest to post-test stages, while the control group exhibits an increase in each stage, though not significant. The experimental group's pretest and post-test scores increase indicating an improvement after the gratitude training was given.

The data analysis indicates that the p-value of 0.009 ($p < .05$) indicates an interaction between the pretest, post-test, and

Table 4. The Quality of Life Score

Group	Participants name	Phase		
		Pretest	Post test	Follow up
Experimental Group	IK	60	68	67
	SU	62	69	66
	SZ	56	74	69
	SO	56	79	69
	SA	61	67	66
Control Group	SN	56	58	61
	MA	57	60	61
	RO	54	58	62
	SP	58	54	63
	RA	62	58	65

Table 5. The Descriptive Statistics

Group	Classification	Pretest	Post-test	Follow-up
Experimental Group	Minimum	56.00	67.00	66.00
	Maximum	62.00	79.00	69.00
	Mean	59.00	71.40	67.40
	SD	2.83	5.03	1.52
Control Group	Minimum	54.00	54.00	61.00
	Maximum	62.00	60.00	65.00
	Mean	57.40	57.60	62.40
	SD	2.97	2.19	1.67

Note: The Hypothesis Test of Within-subject effect indicate $F=9.910$; $p=.009$; Partial Eta Squared=.553

follow-up in both groups. The interaction shows a significant difference in changes in pretest, post-test, and follow-up scores in the two groups. It could be concluded that gratitude training could improve the quality of life of family caregivers of people with schizophrenia. This study found that gratitude training contributes to the participants' quality of life by 55.3%, as shown by the partial eta squared of .553.

Table 6 above shows that the experimental group exhibited a score improvement from pretest to post-test by -12.400 with $p = .002$. The score indicates a significant improvement in quality of life score from pretest to post-test score. Meanwhile, the post-test to follow-up stage exhibited a mean score of 4.000 with $p = .033$, indicating a decrease in quality of life. The mean difference between the pretest and follow-up score indicates an improvement of -8.400 with $p = .000$, implying a significant improvement. Overall, a change was noticed in the mean difference between the pretest, post-test, and follow-up stages.

The control group exhibited a score improvement from pretest to post-test by -200 with $p = .943$. The score indicates an improvement in quality of life score from pretest to post-test, though not significant. Meanwhile, the post-test to follow-up stage exhibited a mean score of -4800 with $p = .015$, indicating a non-significant increase in quality of life. The mean difference between the pretest and follow-up score indicates an improvement of -5.000 with $p = .010$, implying a non-significant improvement.

Discussion

This study showed that gratitude training facilitates participants to share their experiences and condition with others. This sharing helps participants to understand and

realize that other people undergo the same condition or even worse condition than theirs. Realizing that others suffering from worse conditions could make individuals feel gratitude (El-Bantanie, 2014). Gratitude usually occurs when individuals receive goodness from God or other people (Rahmania *et al.*, 2019). Such goodness may be strengthened through feelings, verbal, and behaviors in daily life.

The result of this study is consistent with Putri *et al.* (2016) who found that gratitude training could improve the quality of life more significantly than those who do not participate in the gratitude training. Another study also reports that gratitude training is an effective group intervention that develops mutual trust, openness, understanding, empathy, and feedback to others (Rahmanita *et al.*, 2016). Participants in this study were open and supported each other during the training sessions.

This study is also supported by Valikhani *et al.* (2019) which state that gratitude can directly affect a person's quality of life. Another study by Toussaint *et al.* (2017) also found that gratitude is positively related to the quality of life. Gratitude is effective in improving the quality of life of women living with HIV/AIDS and reported more positive feelings after receiving the gratitude intervention (Adhiningtyas & Utami, 2020). Gratitude can also significantly affect the quality of life of adolescents (Anand *et al.*, 2021). Previous research has consistently found that gratitude can affect a person's quality of life, regardless of the various living conditions they face. Therefore, gratitude plays an important role in improving an individual's quality of life.

Gratitude training is expected to develop participants' understanding, that caregiving family members with schizophrenia may serve as a means to be closer to God. Gratitude training may improve individuals' awareness and

Table 6. The Mean Difference between Experimental and Control Group

Group	Pairwise Comparison		Mean Difference	Sig
	Time(I)	Time(J)		
Experimental Group	1	2	-12.400*	0.002
		3	-8.400*	0.000
	2	1	12.400*	0.002
		3	4.000*	0.033
	3	1	8.400*	0.000
		2	-4.000*	0.033
Control Group	1	2	-0.200	0.943
		3	-5.000*	0.010
	2	1	0.200	0.943
		3	-4.800*	0.015
	3	1	5.000*	0.010
		2	4.800*	0.015

Note. 1 = pretest, 2 = post-test, 3 = follow-up

belief that they should be grateful for any form of God's gift, even the unexpected ones (Windarti *et al.*, 2013). Previous clinical studies reported that practicing gratitude in daily life could bring a long-term positive impact on one's life (Krause *et al.*, 2017). A grateful individual is likely to have more stable and optimistic conditions, which may improve their quality of life. Hence, gratitude could serve as a predictor to improve individuals' quality of life (Crouch *et al.*, 2020).

Gratitude training in this study comprises several activities in which participants share their experiences, thoughts, and feelings, a supportive condition for learning together. This training also helps them to obtain external coping strategies to alleviate caregiving burdens. The external coping strategies include seeking information, maintaining an active relationship with the community, seeking social support, and seeking spiritual support (Pardede *et al.*, 2020). This condition is consistent with Fitriani & Handayani (2020)'s study that recommends an establishment of a community facilitated by local community health centers. Such a community may serve as a means to share and develop the potential of patients with schizophrenia.

Moreover, we found that each participant has a caregiving burden when treating their family members with schizophrenia. A caregiver burden could be defined as a problem, impact, or difficulty faced by parents, guardians, partners, siblings, or other family members who care for individuals with mental disorders (Fitrikasari *et al.*, 2012). This burden could be in the form of a physical or psychological burden. The perceived physical burden is related to participants' fatigue due to caring for schizophrenic individuals' daily needs. Meanwhile, the psychological burden deals with their concern with the difficult economic condition, in addition to an obligation to care for people of schizophrenia. According to Marutani *et al.* (2020), economic status plays a pivotal factor in determining the quality of life of family caregivers of people with schizophrenia. Economic condition is undoubtedly pivotal in determining the success of caring for people with schizophrenia at home. Low-income families of people with schizophrenia surely need health security assistance. In this regard, local governments are necessary to ensure that families with people with schizophrenia possess health insurance to alleviate their caregiver burden financially.

In addition to the financial burden, social support also serves as a factor affecting the burden of the caregiver of people with schizophrenia. Family caregivers need support when facing the illness phase, like when accompanying schizophrenic people doing their daily activities (Vania & Dewi, 2014). Social supports represent attention, comfort, reinforcement, and assistance for others. Social support could be a preventive strategy for minimizing stress and other negative consequences due to caring for people with schizophrenia. The study conducted by Chen *et al.* (2019) showed that family of people with schizophrenia suffers from a heavy physical and psychological burden, including excessive housework, limited social relationship, and psychological stress.

In addition to social support, a personal factor also plays a pivotal role in affecting family caregivers of people with schizophrenia. One of the necessary behaviors is self-adjustment. Family caregivers should understand the dynamics of people with schizophrenia (Ambarsari & Sari, 2012). Individuals living with people with schizophrenia need to possess proper self-adjustment skills. They also need to have spiritual coping strategies. The psychological aspect of quality of life is associated with spirituality. Hence, participants must have a good spiritual condition. During the gratitude training, participants were trained to understand the concept of gratitude, say grateful words, and evaluate their life conditions by remembering the goodness given by God. Participants in this study believed that the stable condition of people with schizophrenia is the result of their prayers. Being closer to God also serves as a coping strategy. In this regard, caregivers with higher spiritual support may result in lower negative feelings (Mirza & Kurniawan, 2015).

This study found that participants could exhibit gratitude despite the condition of their family members with schizophrenia. Participants stated that they always try to take good care of their schizophrenic family members and facilitate their needs despite the heavy burden of caring for them. Participants in this study were highly involved in caring for their family members with schizophrenia. Participants in the experimental group stated that they regularly help their family members with schizophrenia to go to a psychiatric hospital for a doctor visit and ensure regular medication.

Conclusion

This study concludes that gratitude training could improve the quality of life of family caregivers of people with schizophrenia. The analysis result demonstrates a significant increase in participants' quality of life after receiving treatment in the form of gratitude training, indicated by a higher post-test score than the pretest score. Meanwhile, the control group that received no gratitude training exhibited a non-significant quality of life score improvement. The qualitative analysis also showed that participants perceive changes after joining the gratitude training, such as being more grateful and having higher acceptance, capable of turning negative emotions into more positive emotions, and perceiving a closer relationship with God. The gratitude training also allowed participants to share their story and obtain social supports, which eventually improves their quality of life as the family caregiver of people with schizophrenia. Participants learned to be grateful for their health and ability to care for their family with schizophrenia.

Recommendation

Future studies are recommended to involve more participants to obtain more balanced data distribution and gain a better picture of the quality of life of family caregivers of persons with schizophrenia. Future studies also need to consider a qualitative approach in follow-up sessions to see the significance of changes perceived by participants after participating in gratitude training. This study recommends community health clinics and other health care facilities provide equal education related to the caregiving of persons with schizophrenia and the importance of maintaining family caregivers' physical and mental health.

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