



Analysis of Mental Health and Quality of Life of Mount Lawu : The Perspective of Elderly Climbers

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Abstract

This study analyzes the mental health and quality of life of Mount Lawu climbers from the perspective of elderly climbers. Using quantitative descriptive methods, we included 17 participants who filled out the Center for Epidemiologic Studies Depression Scale (CES-D) questionnaire to measure mental health and the Older People's Quality of Life (OPQOL-35) questionnaire to measure quality of life. The results showed that the average OPQOL score was 38.66 with a standard deviation of 4.52, while the average CESDR score was 21.60 with a standard deviation of 2.22. These findings showed that there was variation in quality of life and depression levels among participants, with quality of life more varied than depression levels. These results underscore the importance of interventions that support physical and mental health to improve the well-being of the elderly. A more detailed study is needed to know more about the factors that affect mental health and quality of life in this population.

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INTRODUCTION

The mountains are particularly attractive as a tourist adventure destination that offers a wide selection of activities in an environment rich in physical and symbolic adventures. This experience, which Hamilton-Smith (1993) calls "serious recreation", reflects the physical and symbolic manifestations of the adventure. (Beedie & Hudson, 2003). Accident rates and mortality rates support the claim that climbing at high altitudes is inherently high risk (Wickens, Keller, & Shaw, 2015) (Crust et al., 2019). Beginner climbers should choose a mountain that suits their experience and ability to anticipate the risk of subjective hazards, such as fatigue or lack of knowledge. Proper physical and mental preparation is required by climbers, as well as knowledge of the terrain, field safety, and climbing distance. (Pratiwi & Medyawati, 2020). In addition to offering physical challenges, mountain climbing also provides an immersive natural experience and interaction with the beautiful natural environment. This activity is able to significantly encourage the mental health of individuals as well as the quality of life of the individuals involved in it.

One possible approach to reconnecting with nature and "Old Friends" and increasing physical activity is through Eco-Training. Mountain climbing can be considered a sustained activity of moderate intensity at various altitudes. However, in recent years, interest in the positive benefits that can be obtained from the natural environment and time spent outdoors has increased (Thompson Coon et al., 2011). The benefits of natural areas are believed to include the physiological and mental aspects of well-being (Bratman et al., 2012). Hiking also benefits altitude: going hiking at moderate altitudes (1500–2500m) has a positive effect on the overall health of adults: they have better sleep

quality, general health, and better levels of physical recovery (Huber et al., 2023). In addition, when in contact with nature, people usually do not stay still, but engage in some type of physical activity (Han, 2017). This indicates that although mountain climbing involves walking, to some extent, it can be considered an active form of activity. Therefore, the results of studies that show a positive relationship between moderate activity and weight and health can be associated with mountain walking activities. (Coalter et al., 2010)

Studies on the relationship between nature exposure and mental health also show that spending time in nature can reduce stress, anxiety, and overall psychological well-being. (Rahaju Ningtyas et al., 2023) . It has been proven that exposure to outdoor environments with green areas can reduce stressful experiences and ultimately improve health (Kondo et al. 2018) (Antonelli et al., 2019). The physical activity involved in mountain climbing also has immediate benefits on mental health. Protecting Nature has proven to be very important, as it is associated with better mental health than ever before, preventing systemic diseases, and reducing depression and stress. Hiking in the long term helps people improve their quality of life because it can reduce stress levels and make sleep more restful (QOL; Hansmann, Hug, & Seelanda, 2007). Green open spaces can also contribute to social cohesion, a sense of belonging, and a sense of security by creating environmental spaces that are vital for social interaction (Wood & Giles-Corti, 2008) (Korpela et al., 2014).. (Lee et al., 2018) In addition, mountain climbing also involves social aspects and interaction with fellow climbers. Group activities like this can increase a sense of social connectedness, emotional support, and improve overall quality of life. Mountain climbing has become a very popular recreational activity among the elderly.

Spending time in the natural environment can also provide benefits for health and well-being (White et al., 2019). Every year, more than 6 million people over the age of 60 make a hike in the Alps (Burtscher, 2004). However, unfortunately, hiking activities are often limited to just one tour per week. A study by Gatterer et al. (2015) showed that climbing mountains at moderate intensity once a week did not provide an improvement in cardiovascular risk factors in healthy older adults. To achieve sustainable health impacts, it is important to engage in regular physical activity. (Prosegger et al., 2019). In recent years, there has been an increase in the number of elderly people who choose mountain climbing as a recreational activity and to maintain their fitness [23]. However, there is still a lack of information about the impact of mountain climbing on the elderly and the importance of this activity as a form of refreshing exercise. (Nourshahi et al., 2011)

In previous studies, the majority of the sample came from the white adult population. A qualitative study has just begun to examine its benefits for marginalized groups such as elderly climbers, and the goal is to analyze the influence of mountain climbing on mental health and quality of life from the perspective of elderly climbers on Mount Lawu. This study aims to gain a better understanding of the impact of mountain climbing on the mental well-being and quality of life of the elderly involved in these activities. It is hoped that this study will be able to provide information in the form of knowledge that is important in understanding the importance of mountain climbing for the mental health and quality of life of the elderly, as well as contributing to the development of better programs and policies in facilitating the participation of the elderly in mountain climbing activities on Mount Lawu.

Methods

A quantitative descriptive method was applied to analyze the impact of climbing Mount Lawu on the mental health and quality of life of elderly climbers. This study focuses on the elderly who are 45 years old and older.

Participants

The study involved 17 participants consisting of 13 women and 4 men aged 50 years and above, all of whom were active mountaineers on Mount Lawu.

Sampling Procedures

Participants were selected using the purposive sampling method, with the criteria of the elderly aged 45 years and above who are active in climbing Mount Lawu. Of the total samples approached, 17 people (13 women and 4 men) participated. Data collection was conducted in Gunung Lawu, where OPQOL-35 and CESD-R questionnaires were distributed for participants to fill out independently, with guidance from researchers if needed. No special payments or agreements are made with the participant. Consideration of statistical strength is observed through appropriate inferential analysis, to ensure the accuracy of the results in hypothesis testing.

Materials and Apparatus

This study used several materials and equipment, including a questionnaire in measuring quality of life, namely OPQOL-35 and an assessment of depression levels in participants, namely CESD-R. In addition, IBM SPSS 25 as software to analyze data. questionnaires, and the filling process is carried out by participants independently at their respective locations as data collection, with researchers providing guidance when needed.

Procedures

This study analyzed the mental health and quality of life of elderly climbers on Mount Lawu using OPQOL questionnaires (35 items) and CESD-R (20 items). The questionnaire was distributed to elderly climbers and the collected data was entered into the SPSS. Descriptive analysis was used to describe the mean, median, mode, and standard deviation of quality of life and mental health scores, while frequency tests were used to look at the distribution of responses on each questionnaire item. Respondents were given time to fill out the questionnaire independently with guidance from the researcher if needed. This analysis provides an overview of the mental health conditions and quality of life of older climbers and supports the need for relevant interventions to improve their well-being.

Design or Data Analysis

This study aims to analyze the impact of climbing Mount Lawu on the mental health and quality of life of elderly climbers using a quantitative descriptive method. The study population is elderly climbers aged 45 years and above, with the sample selected purposely. Data were collected using the CES-D and OPQOL-35 questionnaires), which were filled out by respondents after the ascent. Data analysis was carried out with descriptive statistics to calculate the mean, median, and standard deviation, as well as a Pearson or Spearman correlation test to determine the relationship between mental health and quality of life. Research ethics are maintained with confidentiality, anonymity, and informed consent from participants. This research is expected to provide an overview of the mental health and quality of life of elderly climbers as well as the relationship between climbing and their well-being, which can support the

development of climbing programs that are beneficial to the elderly.

RESULT

Table 1. Descriptive Statistics

	N	Mi	Max	Mean
OPQOL	17	30.51	50.75	38.6647
CESD-R	17	19.12	26.01	21.6041
Valid N	17			

Overall, these results provide an overview of the distribution of quality of life scores and depression rates among the analyzed groups. The number of samples (N=17) indicates that this data came from 17 participants who provided the information used in this calculation. Both variables showed variations in the scores reported by participants. Standard deviation provides additional information about the spread of values around the mean. In this case, quality of life had a greater spread than mental health, meaning that quality of life varied more compared to the level of depression among participants. The same number of samples (17) for both variables ensures that these comparisons are consistent.

Table 2. Frequencies Statistics

	OPQOL	CESD-R
N	17	17
Missing	0	0
Mean	38.6647	21.6041
Median	38.1700	20.7300
Mode	42.24	19.12
Std. Deviation	4.51549	2.21885
Minimum	30.51	19.12
Maximum	50.75	26.01
Sum	657.30	367.27

From the descriptive analysis, the participants' mean quality of life score (OPQOL) was 38.66 with a variation in scores from 30.51 to 50.75, indicating a significant variation ($SD = 4.52$). Meanwhile, the mean depression score (CESDR) was 21.60, with scores ranging from 19.12 to 26.01 and smaller variations ($SD = 2.22$). Overall, the results showed that participants had variations in quality of life and depression levels, with quality of life more varied compared to depression levels.

Score Results Opqol Dan Cesd-R

Table 3. OPQOL

Respondent ID	OPQOL Score	Categories Quality of Life
1	30.51	Low
2	34.99	Low
3	35.06	Low
4	35.48	Low
5	35.65	Low
6	36.19	Low
7	37.04	Low
8	37.84	Low
9	38.17	Low
10	38.30	Low
11	39.21	Low

12	39.50	Low
13	40.01	Keep
14	42.24	Keep
15	42.24	Keep
16	44.12	Keep
17	50.75	Tall

Table 4. CESD-R

Respondent ID	CESD-R Score	Categories Depression
1	19.12	Keep
2	19.12	Keep
3	19.12	Keep
4	19.12	Keep
5	19.12	Keep
6	20.72	Keep
7	20.73	Keep
8	20.73	Keep
9	20.73	Keep
10	22.32	Keep
11	22.32	Keep
12	22.32	Keep
13	22.83	Keep
14	24.11	Keep
15	24.11	Keep
16	24.74	Keep
17	26.01	Heavy

Explanation

- OPQOL

Measures quality of life on a scale from 30 to 60. The quality of life of most respondents was low, with some in the medium category and one in the high category.

- CESD-R

Measures the level of depression on a scale from 0 to 60. Most respondents

DISCUSSION

The results of descriptive statistics provided valuable insights into quality of life and depression levels among the participants. This section discusses the implications of these findings in the context of the existing literature and

proposes interpretations and future research directions.

Quality of Life (OPQOL) Analysis revealed that the average quality of life score (OPQOL) among participants was 38.66, with scores ranging from 30.51 to 50.75. A standard deviation of 4.52 indicates a significant variation in the quality of life of participants. These findings suggest that while some participants reported relatively high levels of quality of life, others experienced much lower levels. This variability can be caused by several factors, including socioeconomic status, physical health, social support, and psychological well-being. For example, research shows that older people with higher incomes, better health status, and strong social networks tend to report higher quality of life scores (Gabriel & Bowling, 2004). In contrast, those who experience chronic illness or social isolation tend to have a lower quality of life (Levasseur et al., 2004)

Depression Rate (CESDR). The average depression score (CESDR) among participants was 21.60, with scores ranging from 19.12 to 26.01. A lower standard deviation of 2.22 indicates that depression scores are more pooled around the mean, indicating less variability compared to quality of life scores. This pattern suggests that although participants' experiences of depression vary, the variation occurs within a narrower range. The relatively high average depression score suggests that depression may be a common problem among participants. This is in line with the existing literature, which highlights the prevalence of depression in the elderly due to factors such as the loss of loved ones, decreased physical health, and reduced social interaction (Blazer, 2017). The narrower range of depression scores may reflect generally high levels of depressive symptoms across the sample, potentially indicating the need for more specific

mental health interventions (Bowling, 2009). Implications for Practice These findings underscore the importance of addressing quality of life and mental health in older people. Interventions aimed at improving physical health, strengthening social support, and providing mental health services can have a significant impact on the well-being of these populations. For example, programs that promote social engagement and physical activity have been shown to improve quality of life and reduce symptoms of depression (Forsman et al., 2011)

Future Research Directions Future research should explore the underlying factors that contribute to the variability of quality of life and the observed levels of depression (Fiske et al., 2009). Longitudinal studies can provide insights into how these factors evolve over time and the effectiveness of various interventions. In addition, qualitative studies can deepen our understanding of older people's personal experiences regarding their quality of life and mental health.

CONCLUSION

Overall, descriptive statistics revealed significant variability in quality of life and high prevalence of depressive symptoms among participants. These findings highlight the need for comprehensive interventions that address physical and mental health to improve the well-being of older people. Future research should continue to explore the complex interactions between factors that affect quality of life and mental health in this population.

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