

The Relationship Between Social Function and Somatic Symptoms with the Quality of Life of the Elderly in the Tresna Werdha Social Home

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Abstract: Social functioning and somatic symptoms are crucial components of the health status of the elderly that can influence their quality of life, particularly for those residing in social care facilities. This study aims to analyze the relationship between social functioning and somatic symptoms with the quality of life of the elderly in the Tresna Werdha Social Care Center (PSTW). The research design employed is cross-sectional, involving 146 elderly participants selected through simple random sampling from two PSTWs in East Java. The instruments used include the General Health Questionnaire (GHQ-28) to measure social functioning and somatic symptoms, as well as the Older People's Quality of Life Brief Questionnaire (OPQoL-Brief) to assess quality of life. The results indicate that the majority of the elderly have a moderate level of social functioning (63%) and experience mild to moderate somatic symptoms (58%). Spearman's test reveals a significant relationship between social functioning and quality of life ($p=0.001$; $r=0.512$), as well as between somatic symptoms and quality of life ($p=0.003$; $r=-0.474$). Thus, it can be concluded that better social functioning is associated with higher quality of life, while more severe somatic symptoms are linked to lower quality of life. This study highlights the necessity for nursing interventions focused on enhancing social interactions and managing somatic complaints among the elderly to improve their quality of life in institutional settings.

Keywords: Social Functioning, Somatic Symptoms, Quality Of Life, Elderly, Social Care Facility

INTRODUCTION

The increasing number of elderly individuals, both globally and nationally, presents a demographic challenge that significantly impacts healthcare systems, particularly in maintaining the quality of life for the elderly, which tends to decline with age. By 2050, nearly 22% of the world's population is expected to be aged 60 and above, indicating a transition towards an aging society on a global scale (Acharya Samadarshi et al., 2022; Wu et al., 2022; Zhang et al., 2024). In Indonesia, the elderly population has surpassed 10% of the total population and is projected to reach 19.9% by 2045 (Pratiwi et al., 2024). East Java Province has the highest elderly population in the country, accounting for 14.56% or approximately 6 million individuals (Purwiyanti & Hansari, 2022; Sofyan et al., 2023).

Many elderly individuals in Indonesia spend their twilight years in the Tresna Werdha

Social Care Center (PSTW), particularly those without family or in economically constrained situations (Elsi et al., 2023). Residing in PSTWs is often associated with psychosocial challenges such as loneliness, limited social activities, and changes in social roles, which adversely affect mental health and quality of life (Dung et al., 2020; Septiarini et al., 2019). According to data from the Badan Pusat Statistik (2024), the elderly population in Indonesia has reached 10.7% and is projected to increase to 19.9% by 2045. In East Java Province, including Jember and Bondowoso regencies, over 14% of the population is classified as elderly, with the majority residing in the Tresna Werdha Social Care Center (PSTW). Elderly individuals in PSTWs are at a higher risk of experiencing physical, psychological, and social disorders due to limited access to family and supportive social environments.

The quality of life of the elderly is indeed influenced by various factors, one of which is social functioning, defined as an individual's ability to engage in meaningful social relationships (Chang et al., 2021). Research has shown that limitations in social functioning can increase the risk of depression and decrease life satisfaction (Arywibowo & Rozi, 2024; Dung et al., 2020; Jamini et al., 2020). Additionally, somatic symptoms such as muscle pain, sleep disturbances, fatigue, and gastrointestinal complaints without a clear medical diagnosis are known to have a high prevalence among the elderly and are often underestimated, despite significantly affecting their well-being (Farsida et al., 2023; Nuraeni et al., 2023; Purwiyanti & Hansari, 2022; van Driel et al., 2018). Research by Zhang *et al.* (2024) emphasizes that physical symptoms arising without medical causes may manifest as psychological stress and limitations in the elderly's adaptation to institutional environments. Other studies have also indicated that somatic symptoms often directly impact social functioning by restricting mobility and participation in social activities (Kovaleva et al., 2018; van Driel et al., 2018; Wu et al., 2022). Approximately 20–30% of the elderly experience somatic complaints, which significantly affect their daily functioning (Farsida et al., 2023). Furthermore, 35% of elderly individuals in care facilities experience social isolation or limitations in performing social functions such as interacting, sharing experiences, and engaging in group activities (Gultom et al., 2020; Liao et al., 2019; Wu et al., 2022). These two aspects, social functioning and somatic symptoms, are important indicators in assessing the overall health status of the elderly.

Although several studies have investigated the relationship between physical conditions and quality of life, there is still a paucity of research specifically linking social

functioning and somatic symptoms to the quality of life of the elderly residing in institutional environments such as the Tresna Werdha Social Care Center (PSTW). Therefore, this study aims to analyze the relationship between social functioning and somatic symptoms with the quality of life of the elderly in PSTW Jember and Bondowoso, with the hope of providing a scientific foundation for more effective and contextual nursing interventions. The urgency of researching the relationship between social functioning and somatic symptoms concerning the quality of life of the elderly in PSTWs is critical, as most current nursing interventions have not fully accommodated the social and psychological needs of the elderly. By identifying specific factors that influence quality of life in institutional settings, healthcare professionals can develop more contextual and sustainable promotive and preventive programs to support healthy and dignified aging.

RESEARCH METHOD

This study is a quantitative research with a cross-sectional design aimed at analyzing the relationship between social functioning and somatic symptoms with the quality of life of the elderly. The research was conducted in two Tresna Werdha Social Care Centers (PSTW) located in Jember and Bondowoso regencies, East Java Province. The population for this study consists of all elderly individuals residing in these two PSTWs, totaling 230 individuals. The sample was determined using simple random sampling techniques, with a sample size of 146 elderly participants. The sample size was calculated based on the Yamane formula with a margin of error of 5%. The inclusion criteria for this study are: 1) Elderly individuals aged ≥ 60 years, 2) Elderly individuals who are conscious and able to communicate effectively, 3) Elderly individuals who are willing to participate by signing an informed consent form. Meanwhile, the exclusion criteria for this study are: 1) Elderly individuals with severe cognitive impairments and 2) Elderly individuals in severe illness or hospitalized.

The instruments used in this study include the General Health Questionnaire-28 (GHQ-28), which is utilized to measure mental health status. It consists of four subscales, but in this research, only two subscales are employed: the Social Dysfunction subscale, which includes 7 items, and the Somatic Symptoms subscale, which also includes 7 items. Each item uses a 4-point Likert scale, with higher scores indicating more severe disturbances. Additionally, the Older People's Quality of Life-Brief Version (OPQoL-Brief) is used to measure the elderly's perception of their quality of life. This instrument

consists of 13 items that encompass physical, psychological, social, and role dimensions. The scores range from 13 to 65, with higher scores indicating better quality of life.

Data analysis was conducted using SPSS version 26. The analysis procedures included univariate analysis to describe the frequency distribution of respondent characteristics and the scores of each variable. Bivariate analysis utilized the Spearman Rank test to examine the relationship between social functioning and somatic symptoms with quality of life, as the data were ordinal and not normally distributed (as indicated by the Kolmogorov-Smirnov normality test with $p < 0.05$). The significance level was set at $p < 0.05$.

This study has received approval from the Health Research Ethics Committee of the Faculty of Dentistry, University of Jember, with approval number 2014/UN25.8/KEPK/DL/2023. All participants were provided with explanations regarding the purpose and procedures of the study and were asked to sign a participation consent form (informed consent).

RESULT AND DISCUSSION

Characteristics of Respondents and Bivariate Analysis Results

A total of 146 elderly individuals participated in this study. The following table presents the characteristics of the respondents based on age, gender, education, marital status, and duration of stay in the PSTW, as well as the results of the analysis of the relationship between these characteristics and quality of life using the Somers' d test.

Table 1. Characteristics of Respondents and Somers' d Analysis Results (n = 146)				
Characteristics	n	%	Quality of Life p-value (r)	
Age			0.142 (−0.098)	
60–74 years	98	67.1		
≥75 years	48	32.9		
Gender			0.081 (0.122)	
Male	63	43.2		
Female	83	56.8		
Education			0.019* (0.185)	
No formal education	61	41.8		
Elementary – Junior High	71	48.6		
Senior High – Bachelor	14	9.6		
Marital Status			0.324 (−0.075)	
Merried	36	24.7		
Divorced/Deceased	86	58.9		
Single	24	16.4		

*Significant at $p < 0.05$

The majority of respondents were aged between 60 and 74 years (67.1%), female (56.8%), and had low educational attainment (over 90% had no formal education or only completed junior high school). The analysis results indicate that education is significantly related to quality of life ($p = 0.019$), where respondents with higher education levels tend to have better quality of life. This is because higher educational attainment generally enhances an individual's ability to understand health-related information, access medical care, participate in social activities, and make decisions that impact their overall well-being.

Descriptive Statistics of Social Functioning, Somatic Symptoms, and Quality of Life

Table 2. Descriptive Statistics of Social Functioning, Somatic Symptoms, and Quality of Life among the Elderly

Variable	Category	n	%
Sosial Functioning	Low (Skor > 21)	27	18.5
	Moderate (Skor 15–21)	92	63.0
	High (Skor < 15)	27	18.5
Somatic Symptoms	Mild (Skor < 15)	38	26.0
	Moderate (Skor 15–21)	47	32.2
	Severe (Skor > 21)	61	41.8
Quality og Life	Low (Skor < 39)	54	37.0
	Moderate (Skor 39–51)	74	50.7
	High (Skor > 51)	18	12.3

The majority of the elderly have social functioning categorized as moderate (63%), indicating that they are still capable of engaging in basic social interactions, such as conversing with fellow residents and participating in routine activities, but have not yet optimized meaningful or sustained social relationships. Additionally, a significant proportion of the elderly experience moderate to severe somatic symptoms (74%), reflecting physical complaints such as pain, fatigue, and sleep disturbances that considerably disrupt daily activities. The quality of life for most respondents is at a moderate (50.7%) and low (37%) level, suggesting that many elderly individuals perceive their lives as reasonably adequate but not entirely satisfying in terms of physical, psychological, social aspects, or their roles in daily life.

Relationship between Social Functioning and Somatic Symptoms with Quality of Life

Table 3. Correlation of Social Functioning and Somatic Symptoms with Quality of Life

Variable	Spearman Correlation (r)	Sig. (p-value)
Social Functioning	0.512	0.001*
Somatic Symptoms	-0.474	0.003*

*Significant at $p < 0,05$

The results of the Spearman test indicate a significant positive relationship between social functioning and quality of life ($r = 0.512$; $p = 0.001$), as well as a significant negative relationship between somatic symptoms and quality of life ($r = -0.474$; $p = 0.003$). This means that the better the social functioning of the elderly, the higher their quality of life, and the more severe the somatic symptoms, the lower the quality of life experienced.

This study demonstrates that social functioning is positively and significantly related to the quality of life of the elderly in social care facilities ($r = 0.512$; $p = 0.001$), while somatic symptoms show a significant negative relationship with quality of life ($r = -0.474$; $p = 0.003$). The findings indicate that social functioning has a significant positive impact on the quality of life of the elderly, whereas somatic symptoms exhibit a significant negative relationship. This reinforces the results of the study by Dung *et al.* (2020), which states that the quality of life of the elderly is not only dependent on institutional services but is also greatly influenced by social connectivity and participation in meaningful activities. Elderly individuals residing in social care facilities tend to experience a decline in social functioning due to role limitations, isolation, and low access to family support, which ultimately negatively affects their perception of quality of life.

Social functioning reflects the extent to which individuals can fulfill social roles, maintain interpersonal relationships, and engage in meaningful activities within their community. According to Kovaleva *et al.* (2018) regarding psychosocial development stages, in late adulthood, individuals are at the stage of integrity versus despair, where the meaning of life is often derived from social engagement. Elderly individuals with good social functioning tend to feel more valued, maintain a stable social identity, and are better able to cope with feelings of loneliness and isolation.

Conversely, recurring somatic symptoms such as pain, fatigue, and sleep disturbances contribute to a decline in the functional capacity of the elderly and impact their daily activities. This aligns with the findings of Acharya Samadarshi *et al.* (2022) which state

that perceptions of physical burden can increase stress and decrease overall quality of life. Somatic symptoms can also serve as indicators of unresolved psychological issues, such as depression or anxiety, which affect approximately 20% of the elderly worldwide, as noted by Rodríguez-Martínez *et al.* (2023). Somatic symptoms often manifest as the body's response to unexpressed internal stress, such as loneliness or loss of social roles, which are common among the elderly in social care facilities. Therefore, the higher the somatic burden experienced, the lower the elderly individuals' perception of their quality of life.

The results of this study support findings that indicate social isolation significantly contributes to the low quality of life among the elderly (Salsabila *et al.*, 2024). Another study by Hannafi Ilham and Wahidah Fitriani (2024) also confirms that physical conditions and psychosomatic symptoms impact activity limitations and decrease life satisfaction. However, unlike some community studies that emphasize the importance of family support, this research highlights the role of institutions in providing an active social environment for elderly individuals residing in care facilities. The findings align with those of Dung *et al.* (2020), which state that the quality of life of the elderly in social care facilities in Vietnam is significantly influenced by social engagement and support from family or the community. Studies by Jamini *et al.* (2020) & Sofyan *et al.* (2023) in Indonesia also demonstrate that a decline in social interaction significantly contributes to increased levels of depression and decreased quality of life among the elderly. This indicates that interpersonal relationships remain a primary psychosocial need for the elderly, even when they live in institutional settings.

On the other hand, van Driel *et al.* (2018) emphasize the importance of understanding somatic symptoms as manifestations of hidden psychological distress. They found that in the elderly population, mild physical complaints such as muscle pain or sleep disturbances often lack clear medical causes but still have a significant impact on quality of life. This study aligns with the findings of the current research, where more severe somatic symptoms are associated with lower quality of life. The study by Zhang *et al.* (2024) reinforces the importance of psychological resilience in maintaining the quality of life of the elderly. Although not directly examined in this research, the concept suggests that enhancing social functioning can strengthen the mental resilience of the elderly in coping with unpleasant physical symptoms, thereby helping to maintain their quality of life at an adequate level.

This study makes an important contribution to expanding the understanding of the determinants of quality of life among the elderly, particularly in institutional contexts.

Unlike previous publications that have primarily highlighted psychological variables such as self-reflection and self-control, this research emphasizes two functional and clinical aspects that are more easily observable and manageable by nursing staff. Therefore, the findings of this study can serve as a foundation for designing community-based nursing interventions that focus on enhancing social functioning and addressing mild physical complaints that are often overlooked.

In addition, this research is also relevant in supporting the national program themed "Cared-for Elderly, Dignified Indonesia" by providing empirical evidence regarding the aspects that need to be prioritized in social care facilities (PSTW). Through a holistic and evidence-based approach, nurses can play an active role in encouraging elderly individuals to engage in social activities and provide non-pharmacological approaches in managing somatic symptoms. From a nursing practice perspective, the findings of this study reinforce the need for a holistic and proactive gerontological nursing approach. Nurses not only play a role in caring for the physical conditions of the elderly but also act as social facilitators who can create a conducive environment for social interaction. Group-based nursing interventions such as social activity therapy, reminiscence therapy, and management of mild physical symptoms (non-pharmacological) become relevant and applicable strategies in PSTW.

This study has several limitations that need to be considered. First, the cross-sectional design limits the exploration of causal relationships between variables. The relationships found are only associative, not causal. Second, data were collected using self-report methods, which may introduce perception bias, especially among elderly individuals with mild hearing impairments or declining memory. Third, the research was conducted in only two social care facilities (PSTW) within one province, thus limiting the generalizability of the results to a broader elderly population, particularly those living in the community or at home.

CONCLUSION

This study demonstrates that social functioning has a positive and significant relationship with the quality of life of the elderly in the Social Care Facility for the Elderly (Panti Sosial Tresna Werdha), while somatic symptoms have a significant negative relationship with their quality of life. Elderly individuals with good social functioning tend to have a higher quality of life, whereas those experiencing severe somatic symptoms tend

to have a lower quality of life. The findings of this study emphasize the importance of considering psychosocial aspects and mild physical complaints in efforts to enhance the well-being of the elderly, particularly those living in institutional environments.

Based on the findings of the study, it is recommended for healthcare professionals, particularly nurses in social care facilities (PSTW), to develop social intervention programs such as group therapy, community activities, and skills training that can strengthen the social functioning of the elderly. Additionally, routine assessments of mild somatic symptoms, which are often overlooked but significantly impact the activities of the elderly, should be conducted.

Furthermore, for the management of PSTW and policymakers, it is essential to provide a physical and social environment that supports social interaction among the elderly and ensures access to primary healthcare services that are sensitive to somatic complaints.

Moreover, it is suggested that future research implement longitudinal or experimental designs to assess the long-term impact of interventions aimed at improving social functioning and managing somatic symptoms on the quality of life of the elderly in institutional settings.

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