Scientific Foundation SPIROSKI, Skopje, Republic of Macedonia
Open Access Macedonian Journal of Medical Sciences. 2022 Oct 26; 10(B):2286-2289.
https://doi.org/10.3889/oamjms.2022.10315
eISSN: 1857-9655
Category: *B - Clinical Sciences*
Section: *Geriatrics*

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How Fundamental Conditioning Factors Affect the Quality of Life of Older Adults Indonesians

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Edited by: Mirko Spiroski
Citation: Nurhasanah N, Juanita J, Febriana D, Jufrizal J, Putra A. How Fundamental Conditioning Factors Affect the Quality of Life of Older Adults Indonesians. Open Access Maced J Med Sci. 2022 Oct 26; 10(B):2286-2289. https://doi.org/10.3889/oamjms.2022.10315
Keywords: Quality of life; Older adults; SF-36; Fundamental conditioning factors
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Received: 03-Jun-2022
Revised: 03-Aug-2022
Accepted: 16-Oct-2022
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Funding: This research did not receive any financial support
Competing Interests: The authors have declared that no competing interests exist
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Abstract

BACKGROUND: Older adults experience deterioration of body functions which hinders them in carrying out daily activities, thus affecting their quality of life. The quality of life of older adults also reflects their health and well-being status.

AIM: The purpose of this study was to determine the influence of fundamental conditioning factors on the quality of life of Indonesian older adults.

MATERIALS AND METHODS: Data were analyzed using descriptive statistics. Simple logistic regression was also used to estimate the odds ratio of good health-related quality of life. Two research instruments, a demographic data form and the SF-36 Indonesian version were utilized for data collection.

RESULTS: Findings showed that the total score of the quality of life was at an appropriate level. The logistic regression of occupation and illness duration revealed a relationship with the quality of life of the older adults ($p < 0.05$); however, age, gender, marital status, and morbidity did not affect the quality of life ($p > 0.05$).

CONCLUSION: Older adults with jobs are highly likely to improve their quality of life as they can carry out activities, have social interactions, and make ends meet. However, the length of illness suffered by older adults may affect their quality of life. It is expected that nursing intervention provided, such as teaching proper health behavior for disease management, may help prevent complications and enhance the quality of life of older adults.

Introduction

The development success can be observed by the increased life expectancy of its people. Globally, the population of older adults is projected to increase in the coming years. Nevertheless, the rising number of aging populations may positively and negatively impact themselves, their families, the community, and the government [1]. The positive impact is seen when older adults are healthy, active, and productive; therefore, they do not become a burden on the family, the community, and the government. In contrast, the negative impact occurs if older adults experience a decline in health, making them unable to carry out daily activities to fulfill their needs which further affect their quality of life [2].

Quality of life is the perception of a person on their life in terms of the systems of the culture and values that she/he lives by, which are related to goals, expectations, standards, and concerns. This perception is influenced by physical health, psychological condition, level of independence, social relationships, personal beliefs, and relationships [3].

A study by Alonso *et al*. [4] has indicated that quality of life is associated with a multidimensional concept of health, involving psychosocial, physical, emotional status, and independence of older adults during illness. The illness is caused by a decrease in all bodily functions that make it difficult for older adults to meet their daily needs. The older adults' quality of life can be measured from their physical conditions, such as declined body systems, psychological states, including emotions, and social relationships with the environment, such as their interactions with their families and community [5].

Reduced physical or physiological functions among older adults include visual impairment leading to poor vision. These problems can increase the risk of falls and even complications of the disease. In addition, hearing loss in older adults can create difficulty interacting with other people. Tooth loss may lead to a decrease in the salivary flow, making older adults have no appetite. Such a condition may cause nutritional disturbances, a factor that induces other chronic diseases. On the other hand, mental changes are commonly caused by stress due to life changes, loss of spouses, retirement, illnesses, and living

conditions. Older adults tend to feel loneliness and anxiety, resulting in poor quality of life [6].

Older adults also need to get attention, such as ensuring that they become more dependent on others while taking care of themselves (independently) and maintaining their health. Such awareness is what the family and the environment are obliged to do. In the self-care theory, Dorethea Orem considers that self-care is an activity to form individual independence that will help improve the individual's health. Should she/he experience a health deficit, she/he then needs help from a nurse to regain their independence [7].

Research by Callaghan [8] reported a significant correlation between age, gender, illness, income, education, and religious practices with health behavior, self-efficacy, and self-care ability. Orem, as cited in Callaghan [8], mentions ten fundamental conditioning factors in the theory of self-care agency: Age, gender, developmental state, health state, pattern of living, health-care system, family system, socio-culture, and availability of resources, and external environment. However, this study investigated only six fundamental conditioning factors: Age, gender, marital status, occupation, morbidity, and illness duration. This study aimed to examine the fundamental conditioning factors that may influence the quality of life of older adults in Indonesia.

Materials and Methods

Design and samples

This cross-sectional study was conducted among 400 older adults [9] above 60 years old in Banda Aceh, Indonesia.

Instruments and data collection

Data were collected for 2 months (May–June 2019) by disseminating the questionnaires to older adults who participated in the monthly physical activity checkup activities at the community health centers across Banda Aceh. The instruments used in this study include demographic characteristics (age, gender, marital status, occupation, morbidity, and illness duration) and the Indonesian version of the SF-36 [10].

The quality of life of the participants was examined using the SF-36, which consists of eight dimensions: Physical functioning (ten items), role limitations due to physical health (four items), role limitation due to emotional problems (three items), energy/fatigue (4 items), emotional well-being (five items), social functioning (two items), pain (two items), and general health (five items).

Data analysis

Demographic data and quality of life, while bivariate analysis using simple logistic regression was carried out to examine the fundamental conditioning factors associated with quality of life among Indonesian older adults.

Ethical consideration

The ethics committee approved this study of the Faculty of Nursing, Syiah Kuala University, with the ethics number 111068020418.

Results

Table 1 describes the results on the quality of life of the older adults in Indonesia. As shown in the table, the overall physical health is at the poor level of 59.5%, and the overall mental health is also at the poor level of 52.5%.

Table 1: Quality of life data

Quality of life	Mean	SD	Level (%)	
			Poor	Good
Physical health				
Physical functioning	56.08	22.02	139 (34.8)	261 (65.3)
Role functioning/physical	31.25	36.89	257 (64.3)	143 (35.8)
Pain	57.19	20.48	128 (32)	272 (68)
General health	47.58	14.86	210 (52.5)	190 (47.5)
Mental health				
Energy/fatigue	47.58	14.86	167 (41.8)	233 (58.3)
Social functioning	59.46	18.60	81 (20.3)	319 (79.8)
Role functioning/emotional	33.67	39.27	269 (67.3)	131 (32.8)
Emotional well-being	63.14	14.46	72 (18)	328 (82)
Health change	49.25	22.30	118 (29.5)	282 (70.5)
Overall health-related quality of life	49.72	15.83	227 (56.8)	173 (43.3)
Overall physical health	48.03	18.82	238 (59.5)	162 (40.5)
Overall mental health	51.86	17.59	210 (52.5)	190 (47.5)

SD: Standard deviation.

The relationship between conditioning factors and quality of life is shown in Table 2.

Table 2: Relationship between fundamental conditioning factors and quality of life

Basic conditioning factors	Quality of Life			OR (95% CI)	p
	n	Poor (%)	Good (%)		
Age (year old)					
60–69	242	135 (55.8)	107 (44.2)	0.90 (0.60–1.35)	0.70
>70	158	92 (58.2)	66 (41.8)	1	
Gender					
Male	118	64 (54.2)	54 (45.8)	0.86 (0.56–1.33)	0.58
Female	282	163 (57.8)	119 (42.2)	1	
Marital status					
Single	12	9 (75)	3 (25)	0.49 (0.12–1.86)	0.13
Married	173	90 (52)	83 (48)	1.35 (0.90–2.03)	
Widowed	215	128 (59.5)	87 (40.5)	1	
Occupation					
Not working	206	128 (62)	78 (38)	0.49 (0.31–0.76)	0.003
Retirement	64	41 (64)	23 (36)	0.45 (0.24–0.83)	
Private sectors	130	58 (44.6)	72 (55.4)	1	
Morbidity					
No illnesses	7	4 (43)	3 (57)	1.33 (0.28–6.34)	0.28
Single morbidity	313	184 (58.8)	129 (41.2)	0.70 (0.42–1.14)	
Multiple morbidity	80	40 (50)	40 (50)	1	
Illness duration (years)					
1–5	206	128 (62)	78 (38)	0.49 (0.31–0.76)	0.003
6–10	64	41 (64)	23 (36)	0.45 (0.24–0.83)	
11–15	130	58 (44.6)	72 (55.4)	1	

OR: Odds ratio, CI: Confidence interval.

In the bivariate analysis, simple logistic regression was utilized to examine the fundamental

conditioning factors associated with quality of life among Indonesian older adults. Table 2 contains the total number of respondents in this study amounts to 400 older adults. Meanwhile, Table 1 displays the results of the respondents' demographic data. The majority of the respondents in older adulthood (60–74 years old) accounted for 60.5%, female 70.5%, widow/widower 53.8%, unemployed 51.5%, suffering from a disease 78.3%, and duration of illness 1–5 years 51.5%.

The relationship between fundamental conditioning factors and quality of life showed an association between occupation and illness duration with quality of life ($p < 0.005$).

Discussion

The results revealed that the overall quality of life of the older adults was at the poor level of 56.8% and the lowest category was in physical health (59.5%) and mental health (52.5%). The findings here conform to Soosova [5], which states that the quality of life of older adults concerning the physical aspect drops due to reduced body functions. As a consequence, older adults feel fatigued when doing daily activities. However, this study found that the sub-variables of mental health such as energy/fatigue (58.3%), social functioning (79.8%), and emotional well-being (82%) were good. These findings concur well with those in the research by Vipa *et al*. [11], which pointed out that the mental health, social functioning, and emotional well-being of the older adults were at reasonable levels.

In terms of simple logistic regression analysis for the six fundamental conditioning factors and quality of life, it was found that there was a relationship between quality of life and occupation ($p = 0.000$). This finding matches with the study of Sari *et al*. [12], which also found that occupation and quality of life were correlated.

This study indicates that patients with occupations have a higher quality of life than those without professions. It is argued that patients who work do more activities have more significant opportunities to socialize with other people and can earn financially; therefore, they will not dwell on their illnesses. Older adults who can carry out activities may have a better quality of life [13].

Likewise, the quality of life of older adults who work informally is also considered good and is associated with a positive health evaluation. Occupation is one factor that can stimulate the improvement of health, activity, and productivity of older adults apart from social interactions and thus boost the quality of life. In addition, from the perspective of human development, working gives older adults a meaningful life, which enables them to develop their capacity as active and productive individuals. It contributes to their self-realization and social recognition [14].

Further, the result highlighted a relationship between duration of illness and quality of life ($p = 0.003$). This finding aligns with a study from Sari *et al*. [12], which stated that the longer an individual had diabetes, the lower their quality of life. As evidenced by the statistical test result, there was a significant relationship with a $p = 0.000$ ($p < 0.05$). Prolonged illnesses among older adults may eventuate disrupted physical, psychological, and social needs, affecting their quality of life.

On the contrary, in terms of age, gender, marital status, and morbidity, this study showed no relationship between these factors and the quality of life of the older adults ($p > 0.05$). A large part of this is due to most (60.5%) older adults aged 60–69 years and living with their families, not in any institutions; thus, their daily needs are generally fulfilled [15].

These findings differ from the previous study, which found that chronic disease significantly affects older adults' poor quality of life. Many chronic diseases are related to mobility problems, basic daily activities, and instrumental activities of daily living [13].

The longer older adults are immobile, the higher the chance of developing disabilities over a long period, and the less chance for older adults to have the ability to live independently. Nevertheless, although this study found no correlation between age and quality of life, earlier studies showed that those 70 and above had poor quality of life at around 58.2%, indicating that older age is highly correlated with decreased quality of life among older adults [13].

Similarly, this study also found no relationship between marital status and quality of life, although those who were singles had poor quality of life at 75%. This finding corroborates those reported by a previous study which showed that older adults living with partners gained a better quality of life than those living alone, as loneliness has played a crucial role in lowering the quality of life [13].

The results of this study follow those in the survey by Praveen and Rani [6]. There was no difference in the quality of life between male and female older adults in rural areas. However, in the case of social relationships, this study yielded poor results, suggesting the need for recreational activities within the older adults' social and physical groups. Such actions will help build the older adults' confidence to gain improved quality of life.

Conclusion

Older adults with occupations may have a better quality of life as they often carry out activities,

engage in social interactions, and make ends meet. However, the lengthy period of illness suffered by older adults is highly likely to affect their quality of life. It is expected that nursing intervention provided to older adults, such as teaching them health behavior to manage their diseases, may help enhance their quality of life.

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