The Description of Quality of Life of the Elderly Using WHOQOL-BREF

Nurnaningsih Herya Ulfah[1] and Endah Retnani Wismaningsih[2]
[1]*Public Health Department, Faculty of Sport Science, Universitas Negeri Malang, Semarang No.5, Malang, Indonesia,*
[2] *Public Health Study Program, Faculty of Health Science, Institut Ilmu Kesehatan Bhakti Wiyata Kediri, KH Wachid Hasyim No. 65 Street, Kediri, Indonesia,*
nurnaherya.fik@um.ac.id, endah.wismaningsih@iik.ac.id

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Abstract: Aging process is mostly accompanied by decreasing both internal and external immune process response. This process is always accompanied by either physiological nor psychological changes. This changes affected the quality of life on the elderly. Malang is a city with an increasing number of the elderly along with the increasing of life expentancy. This research was aimed to describe the quality of life of the elderly in Malang City. This research was a descriptive study with a cross-sectional study design approach. The data collection was done by purposive sampling on 60 willing participants using WHOQOL-BREF questionnaire. Data were analysed by comparing the grade on WHOQOL-BREF domain with the WHO standarts. The result showed that 58.33% of the elderly in Malang City have medium quality of life. They often had difficulty with sleeping, moderately had negative feeling, had dependence of medication, had problems in personal and social relations, did not have leisure opportunities or participation, and felt that spirituality help through tough times. Based on this result, a proper health program can be designed in order to increase the quality of life of the elderly, thus it will increase life expectancy rate.

1 INTRODUCTION

The elderly population is one of the most important demo-Figure events of our time. The 21st century has seen an ever-growing elderly population. Therefore, strategies are necessary in order to improve their quality of life. Health is one of the most important variables in determining quality of life in the elderly (Rashid and Manan, 2013).

The growth in the elderly population means an inevitable increase in general physical health, psychobiological and mental health-related problems (Kwan, Ali and Deuri, 2016). This process will always be accompanied by either physiological or psychological changes. These changes affect the quality of life of the elderly. Quality of life (QoL) refers to the general satisfaction with life or its components. It is a multidimensional concept since it consists of objective, subjective and relational factors (Eva *et al.*, 2015).

The aging phenomenon and the growing proportion of the elderly have started in many developing (the Central Bureau of Malang City Survey) the percentage of the elderly in East Java reached 11.88%. While in Malang city is bigger than national percentage that was equal to 8.86% of population (Malang, 2017). Malang is a city with increasing number of elderly along with the increasing of life expectancy. Coupled with an increase in life expectancy, this massive demo-Figure change calls for a major effort to ensure the quality of life in our older population (Giacalone *et al.*, 2016).

The quality of life in the elderly population is influenced by social, environmental, political, socioeconomic, and health factors amongst other relevant issues which have been compiled in different validated international questionnaires (*Quality of Life and Multiculturalism of Elderly People in the City of Ceuta (Spain) - ScienceDirect*, 2014). The researches that use WHOQOL-BREF are for healthcare providers, medical students, and married couples. Based on the research by (Gholami *et al.*, 2013), it is known that the WHOQOL-BREF method is used to measure the quality of life of healthcare providers in Neyshabur and (Zhang *et al.*, 2012) in medical students in China. The result of WHOQOL-BREF is a reliable instrument to measure the quality of life of

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health care providers; reliable and valid in the assessment of the QoL of Chinese medical students.

However, there is a need for appropriate measures for the elderly target so that the WHOQOL-BREF method is proposed to measure the quality of life of the elderly in Malang that will be used as an evaluation material in determining a proper elderly empowerment programs which ultimately increase the life expectation rate in Indonesia. Thus, this research was aimed to describe quality of life on the elderly in Malang City.

2 METHOD

2.1 Design and Sample

A cross-sectional study design was adopted. Participants were the elderly who lived in Malang City. Purposive sampling was used, and the inclusion criteria included older adults aged >60 years old who were (1) able to communicate, (2) willing to participate in interviews and to complete the questionnaire independently or with assistance, and (3) agreed to participate in the study and signed the letter of consent. The exclusion criteria were severe dementia, disability and visual or hearing impairments. Among the participants, there were 60 of them who were willing to participate in the interview and completed the questionnaire, 15 of them declined, and 12 of them did not meet the criteria.

2.2 Data Collection Process and Definition

Primary data acquisition was done by distributing questionnaires and interviews. Questionnaire filling was done with the assistance of enumerator. The instrument used was the WHOQOL- BREF questionnaire. WHOQOL-BREF discussed the feelings of the elderly on the quality of life, health, physical condition, social skills, ability to move, and sex or generally contains 4 domains which consist of physical, psychological, social, and environmental domains. All questions were based on a five-point Likert scale (1-5). Questions in the questionnaire focus on intensity, capacity, frequency and evaluation. The scale of the intensity response referred to the degree to which the status or situation was experienced by the individual. Data obtained from the results of questionnaires were processed manually by editing, coding, scoring and tabulating.

2.3 Statistical Method

Statistical analysis is used to describe the frequency, percentage, mean and deviation standard of the primary data obtained. Frequency was obtained by summing the results obtained according to the category. Each category was then entered into a percentage form to determine the extent to which the range of results with the maximum value that could be obtained. The mean was used in relation to the average acquisition of each category by dividing the number of results obtained by the frequency of the respondent, while the deviation standard was used as the calculation component to determine the magnitude of the difference from the sample value to the average. The benchmark was the greater the standard deviation value you get, the greater the diversity of sample and vice versa i.e. if the standard deviation you got was small then the sample was not diverse. Based on the mean, all domains will be categorized as low average and high average after compared to WHOQOL-BREF standard.

3 RESULTS

3.1 Physical Health Domain

Physical health domain consisted of pain and discomfort, energy and fatigue, sleep and rest. The results of physical domain of Malang city are described as follows:

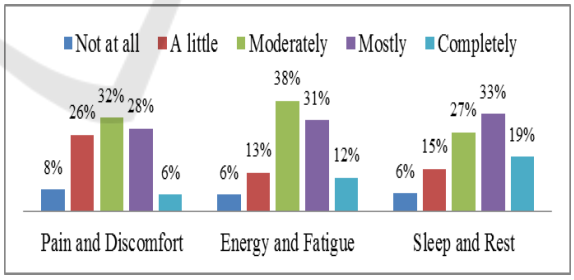

Figure 1: Physical domain.

Figure 1 shows that 8% of respondents often felt pain and unpleasant physical sensation, 6% of them often experienced fatigue, and 6% of them often had any difficulties with sleeping.

3.2 Psychological Domain

Psychological domain consisted of five facets, namely positive feelings, thinking, learning, memory and concentration, self- esteem, bodily image and

appearance, and last negative feelings. The results of psychological domain of the elderly in Malang City are described as follows:

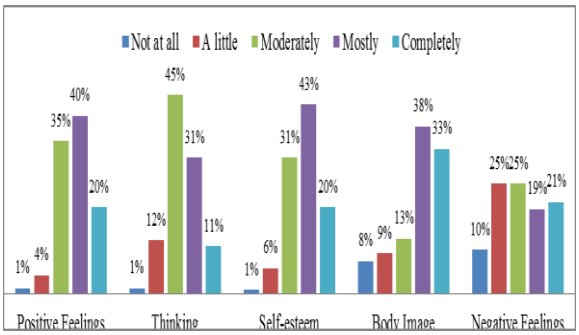

Figure 2: Psychological domain.

Figure 2 shows that 40% of respondents often experienced positive feeling, 43% of them mostly had good self-esteem, 38% of them mostly had positive feeling of his/her body and 25% of respondents often experienced negative feeling, such as despondency, guilt, sadness, tearfulness, despair, nervousness, anxiety and a lack of pleasure in life.

3.3 Level of Independence Domain

Level of independence domain consisted of four facets, namely mobility, dependence on medication, activities daily living, and working capacity. The results of level of Independence domain of Malang city elderly are described as follows:

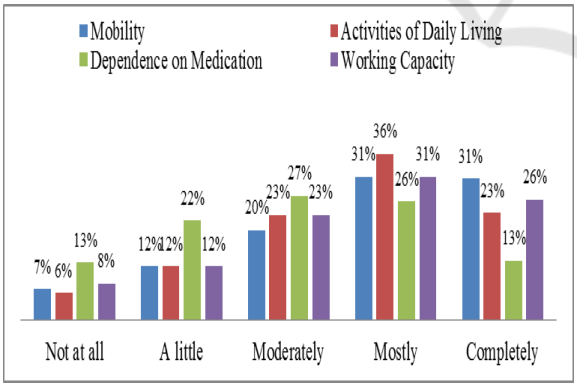

Figure 3: Level of independence domain.

Figure 3 shows that 7% of the elderly in Malang felt limited in moving, 6% of the elderly had difficulty in performing daily physical activity, 13% of the elderly felt very dependent on treatment or treatment, and 8% of the elderly felt their working capacity was very low.

3.4 Social Relationship Domain

Social relations domain consisted of three facets, namely personal relationship, social support, and sexual activity. The results of social relations domain of the elderly in Malang city are described as follows:

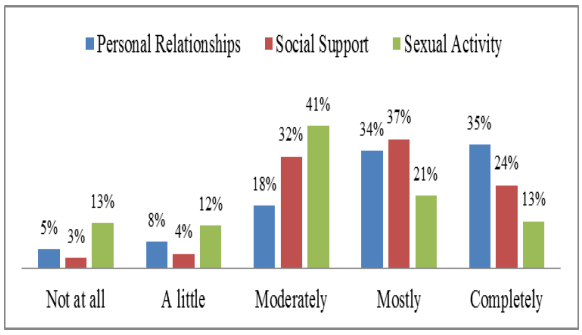

Figure 4: Social relation domain.

Figure 4 shows that 5% of the elderly experienced problems in terms of personal relationships, such as often felt lonely; 3% of them felt that they did not get support from their close related person, especially family and friends; and 13% of them experienced problems with sexual activity.

3.5 Environmental Domain

Environment domain consisted of eight facets, namely physical safety and security, home environment, financial resources, health and social care: availability and quality, opportunities for acquiring new information and skills, participation in and opportunities for recreation and leisure, physical environment (pollution/noise/traffic/climate), and transportation. The results of environment domain of the elderly in Malang city are described as follows:

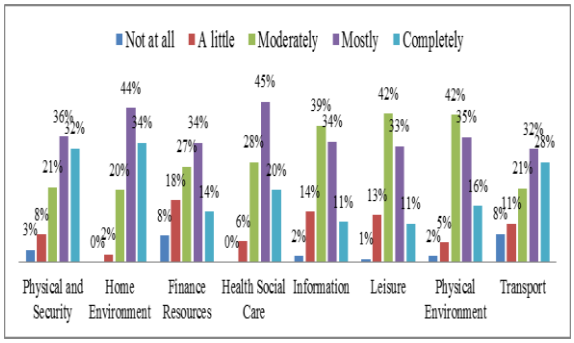

Figure 5: Environment domain.

Figure 5 shows that 36% of the elderly in Malang city who felt the physical and security in their

neighborhood were guaranteed; 44% of them felt comfortable with their home environment; 16% of them felt comfortable with physical environment in their residence, which includes noise, climate, and pollution. In mobilization activities, 8% of the elderly still felt difficult to access transportation, 8% of them felt financial problems in terms of providing daily needs. In terms of health care and social services, there were only 20% of them felt that they had an access and adequate quality related to social services in community, such as health services and social assistance; only 11% of them felt that they had a chance to get new information and skills; and 11% of them felt ability to relax and enjoy their spare time.

3.6 Spirituality/Religion/Personal Beliefs (SRPB) Domain

Spirituality/Religion/Personal Beliefs (SRPB) Domain was connected with a higher being, meaning in life, admiration, totality, spiritual strength, inner peace, hope, and faith. The results of SRPB Domain of the elderly in Malang City are described as follows:

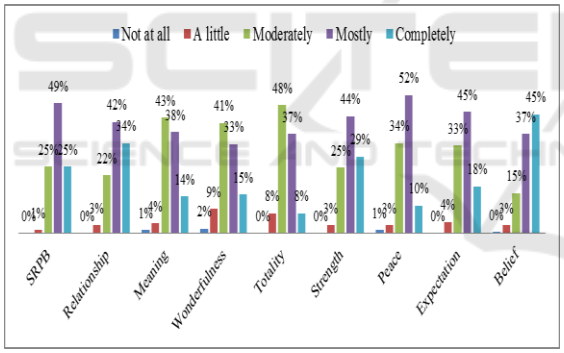

Figure 6: Spirituality/Religion/Personal Beliefs (SRPB) Domain.

Based on Figure 6, the highest percentage facets in general were inner peace (52% of respondents), in which 49% of respondents said that SRPB was important in their live, 42% of respondents had connection with the higher being, 38% of respondents often felt a meaningful life. In addition, the elderly often felt admiration/wonderfulness in their life (33% of respondents), 37% of respondents often felt totality in life, 44% of respondents often found spiritual strength, 52% of respondents often felt inner peace, 45% of respondents often had a sense of hope and optimism in life, and 45% of respondents very often felt faith contribute to welfare of life.

3.7 Quality of Life of The Elderly

The results of quality of life on the elderly in Malang city are described as follows:

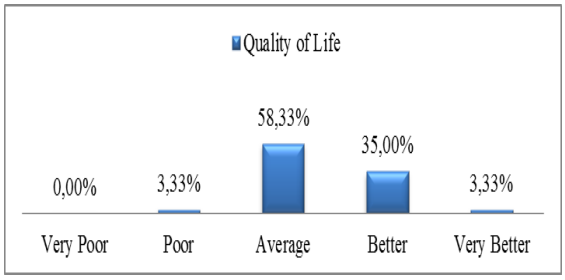

Figure 7: Transformed score of quality of life of the elderly in Malang City.

Based on Figure 7, the majority of the elderly in Malang City have medium quality of life (58.33%).

4 DISCUSSION

4.1 Physical Health Domain

Based on Figure 1, it can be seen that 8% of respondents often felt pain and unpleasant physical sensation which included stiffness, aches, long-term or short-term pain, or itches. It also shows the energy and endurance of respondents. The result explains that 6% of respondents often experienced fatigue. Fatigue may cause illness problems such as depression or overexertion. The research indicated fatigue correlate with quality of life. It explained that the elderly who did not experience fatigue had twice better quality of life (Bryła, Burzyńska and Maniecka-Bryła, 2013).

Figure 1 also shows that 6% of respondents often had any difficulties with sleeping. A research shows that positive sleep quality was closely related to the quality of life of the elderly (Rashid and Manan, 2013). Physical domain was significantly associated with level of education. The results from researches indicated that people with high education were more likely to do healthy behaviors which might improve physical health than those with low education (Onunkwor *et al.*, 2016).

4.2 Psychological Domain

Based on the Figure 2, it can be seen that 40% of respondents often experienced positive feeling. Enjoying life can be done in various ways such as doing recreational activities and doing hobby. This

Figure also shows that 31% of respondents mostly had good thinking, learning, memory, concentration and ability to make decisions. It is acknowledged that some people with cognitive difficulties may have no insight into their difficulties (WHO, 2012).

Figure 2 also shows that 43% of respondents mostly had good self-esteem. The aspect of self-esteem concerns with a person's feeling of self-efficacy. The focus of this facet also includes the satisfaction with oneself and control (WHO, 2012). The research concluded that women had a significantly lower quality of life in all domains than the men. It caused the women perceive aging more negatively than men. It correlates the findings that unattractive feelings among elderly women can decrease self-esteem and also cause negative perception (Onunkwor *et al.*, 2016).

Figure 2 shows that 38% of respondents mostly had positive feeling on his/her body. The respondents can accept his/her body and feel satisfied with his current appearance (WHO, 2012). Based on the Figure 2, it can be seen that 25% of respondents often experienced negative feeling, such as despondency, guilt, sadness, tearfulness, despair, nervousness, anxiety and a lack of pleasure in life. Residents of a nursing home underwent the negative feelings during adaptation such us such as worthlessness, rejection, loneliness, and insecurities following abandonment. Over time, they adjusted to their new surroundings, met new friends, and enable developing positive attitudes (Onunkwor *et al.*, 2016).

Psychological domain was significantly correlated with education. People with high education could improve psychological resilience, coping mechanisms and social relationships. It clarifies the better quality of life among people with high education because they can manage stressor better than people with low education (Onunkwor *et al.*, 2016).

4.3 Level of Independence Domain

Figure 3 shows that 7% of the elderly in Malang felt limited in moving. This is supported by 6% of the elderly having difficulty in performing daily physical activity. It is important to focus on making it easier for the elderly with physical mobility to become or stay physically active, whereas the elderly with impaired physical mobility have a higher prevalence of obesity irrespective of physical activity (Asp *et al.*, 2017).

Decreased physical ability also affects the attitude of dependence on treatment. This is shown by 13% of the elderly who felt very dependent on treatment. Limitations in movement and activity, and dependence on drugs can decrease the work capacity of the elderly. It is supported by 8% of the elderly who felt their very low working capacity. Previous literature indicated that the chance to engage in meaningful activities, sense of security concerning health and safety pleasant physical environment, an environment or venue that facilitate the close relationship and opportunity to socialize contribute to the quality of life amongst the elderly in institutions (Dahlan, Ibrahim and Masuri, 2016).

4.4 Social Relationship Domain

Figure 4 shows that 5% of the elderly experienced problems in terms of personal relationship, such as often feel lonely. This was supported by 3% of the elderly who did not get support from their close related person, especially family and friends. Study by Putthinoi, Lersilp and Chakpitak (2016) showed that all of the elderly communicated independently. The elderly acted independently in interpersonal interactions and relationships, but they needed assistance from people or equipment in some activities such as walking and bodily care. Most of the home-bound elderly performed activities of daily living independently, whereas the elderly living at home were dependent when using transportation and driving.

In addition to problems in personal and social relations, the elderly in Malang city also experienced problems with sexual activity, which amounted to 13% elderly. Previous literature indicated that the elderly had a moderate level of perception on health condition; high level of perception on social background, financial support, accommodation, hobbies and quality well-being; sexual activity was discovered as the lowest. Four variables that affected the perception of quality well-being in the elderly included: accommodation, social background, sexual activity, and health condition (*Perceptions of Quality Well-Being among the Elderly in the Dusit District, Bangko - ScienceDirect*, 2015). Discovered that some older men believed that they had erectile dysfunction (ED; once more commonly known as ‘‘impotence’’) when they were actually experiencing an age-related change in physical response. Although, on women, postmenopausal changes in the urinary or genital tract associated with lower levels of estrogen can make sexual activity less pleasurable (Rheaume & Mitty, 2008).

4.5 Environment Domain

Figure 5 shows that 36% of the elderly in Malang city felt that the physical and security in their neighborhood was guaranteed. Nevertheless, 44% of the elderly felt comfortable with their home environment. Figure 5 also shows that 16% of the elderly felt comfortable with physical environment in their residence, which includes noise, climate, and pollution. In mobilization activities, 8% of elderly still felt difficulty to access transportation. Quality of life (QOL) is an important health outcome of the aged population, and it is determined by many factors. Evidence showed that the place where older people live was associated with their health and QOL (*The association of activity and participation with quality of life between Japanese older adults living in rural and urban areas - ScienceDirect*, 2013).

Environment in the institutions can contribute to Quality of Life as the layman's definition of Quality of Life comes from the people themselves and is based on personal expectations and judgments in their lives context, standards in life, grounded in their experience in different aspects of life and in comparison with other people such as friends and peers. In relation to the context of life, physical environmental factors such as greenery outdoor space and pleasant environment, privacy, comfortable living areas that allow social interaction and engagement in activities, thermal comfort, light exposure and risk-averse environment can contribute to Quality of Life and life satisfaction. In short, the physical environment must be a "home-likeness environment" (Dahlan, Ibrahim and Masuri, 2016).

In addition, 8% of elderly felt financial problems in terms of providing for daily needs. In terms of health care and social services, only 20% of the elderly felt that they had access and adequate quality related to social services in the community, such as health services and social assistance. Previous literature indicated that the poor health condition of the elderly (assessed by chronic disease occurrence) was the most often reason for applying for social services. Elderly women more often needed nursing help. On the other hand, the financial situation of elderly men was worse than the financial situation of women. Identifying reasons for applying for social care by the elderly should facilitate the introduction of workable solutions in the social healthcare and policy (Burzynska *et al.*, 2016).

In social activities, only 11% of the elderly felt they had a chance to get new information and skills and 11% of them felt able to relax and enjoy spare time. In addition, despite diminishing physical capacities with age, the elderly were able to compensate some of this loss with knowledge, skills, and expertise. Such efficacious outlook produced personal accomplishments, reduced stress and lowered vulnerability to depression. So, QoL is strongly linked to perceived self-efficacy where a strong sense of self-efficacy increases human accomplishment and personal well-being in many ways (*Psychosocial Dimensions of Quality of Life among Elders: A Research of the Italian and Spanish Elderly - ScienceDirect*, 2014).

Based on (Kerr *et al.*, 2012) the built environment had critical role in promoting or inhibiting physical activity in older adults: the design of neighborhoods in which older adults live, retirement communities, assisted-living facilities, and older adults' homes are vitally important, including access to transportation. Density and public activity are necessary for vigorous neighborhood social networks.

4.6 Spirituality/Religion/Personal Beliefs (SRPB) Domain

In the analysis of the SRPB domain and also in the domain VI, based on Figure 6, the percentages revealed a considerable degree of value given to the aspects related to spirituality, religion and personal beliefs for quality of life in old age. The highest percentage facets in general were inner peace (52% of respondents). There were 49% respondents who said that SRPB was important in their live. This result meant that major elderly in Malang City had spirituality/religion/personal beliefs.

Figure 6 shows the percentage of several facets including connection with a higher being, meaning in life, admiration, totality, spiritual strength, inner peace, hope and faith. The result was 42% of respondents had connection with a higher being. It meant that spirituality can help them get through tough times, tolerate stress, and provide comfort in life. Figure 6 also shows that 38% of respondents often felt the meaning of their life.

In addition, the elderly were often feel admiration/wonderfulness in their life (33% of respondents), 37% of respondents often felt totality in life, 44% of them often find spiritual strength, 52% of them often felt inner peace, 45% of them often had a sense of hope and optimism in life, and 45% of them very often felt faith that contributes to welfare of life.

Spiritual and religious beliefs are important components of quality of life (QOL) at any age (Vitorino, Low and Vianna, 2016). The impact of

religion and spirituality on the health of the elderly specifically has been an increasing focus on how the association is manifest and has been driven by not only concerns for elderly health and related policy implications, but also, as referenced above, increases human longevity, the growth in the size of the older population globally, and the relationship between aging and spirituality (Zimmer, Rubin and Kritchevsky, 2016).

Another study reported that spirituality had been identified as an important factor in the overall health care which is understood at an individual level and can be viewed as a sense of internal peace and search of a purpose and connectedness to the sacred (Rego and Nunes, 2016).

4.7 Quality of Life on The Elderly

Figure 7 describes the percentage value of transformed scores and the quality of life for the elderly in Malang City. The result from Figure concluded that majority of the elderly in Malang City had medium quality of life (58.33%). This measurement of the quality of life was obtained from six domains WHOQOL-BREF consists of physical health, psychology, level of independence, social relationship, environment, and spirituality/religion/personal beliefs.

5 CONCLUSION

Overall, the elderly in Malang city had medium quality of life. Based on this result, a proper health program can be designed in order to increase the quality of life of the elderly, thus it will increase life expectancy rate.

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