The Association between Social Activity and Health-Related Quality of Life in Yogyakarta, Indonesia

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ABSTRACT

Background: Special Region of Yogyakarta is one of Province which has an old population structure in Indonesia. Total elderly are 45,000 or 13.81% of the total population. House for elderly (Rumah Sehat Lansia / Rusela) is a promotive and preventive program to improve the quality of life of the elderly in Yogyakarta. This study aimed to know the association between health related quality of life with social activity at Rusela Facility in Yogyakarta, Indonesia.

Subjects and Method: This was a cross-sectional study conducted at Rumah Sehat Lansia, in Yogyakarta. The dependent variable was health-related quality of life. The independent variable was social activity. A sample of 87 elderly was selected purposively. The data were collected by interviews using a structured questionnaire. The data were analyzed by Chi square test.

Results: Sample characteristic were female (78.20%) and 56-65 years old (57.50%). There was a positive association between social activity with health-related quality of life in elderly (OR= 6.85; 95%CI = 2.64 to 18.91; p<0.001).

Conclusion: There is a positive association between social activity with health-related quality of life in elderly.

Keywords: health-related quality of life, social activity, elderly

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BACKGROUND

The life expectancy of the world’s population has increased since the communicable diseases have been successfully improved and the nutritional status of the community has improved. The concentration of the elderly in the world continues to increase. This also happened in Indonesia.

Based on the Central Bureau of Statistics Projection Data (BPS), the population of Indonesia from 2010 to 2035, Indonesia is currently transition to an aging population structure. The increased of life expectancy from 69.80 years in 2010 to 70.90 years in 2017. It was predicted will increase up to 72.40 in the 2035. The level of the number of elderly Indonesians in the period 1990 to 2025 was ranked fourth in the world. This ranking was below China, India, and the United States (Arsyad, 2013). The life expectancy of the people at Special Residence Yogyakarta was the highest among other province in Indonesia, 71.25 years for men and 76.35 years for women.

Yogyakarta Special Region is one of the provinces in Indonesia which has an old population structure (13.81%) of the total population of 45,000 elderly (Ministry of Health, 2017). The increasing quantity of the elderly must be balanced with an increase in the...
quality of life of the elderly so that they can live healthy, productive, and independent so that it does not become a burden on families and the government (Thalib et al., 2015). Aging will have an impact on various aspects of life both social economic and health. The elderly tends to have multipatological diseases. The elderly are vulnerable to non-communicable diseases due to increasing age and decreased physiological function. Aging can decreases the immune system so that the elderly are vulnerable to infectious diseases (Infodatin, 2016).

The more you age, the more susceptible to physical complaints both due to natural factors and disease factors. Increasing age also results in a decrease in cognitive function, so that the impact on decreasing daily social activities. The elderly become unproductive so that problems arise in public health and also have an impact on increasing family, community and government costs for the treatment of disease (Ministry of Health., 2015). The aging also causes changes in social conditions that can result in a decrease in social roles. Quality of life is a vital service outcome measures that are relevant to the care of old age people (Aji Kumar, 2015).

In addition to, loss of work can reduce the degree of health. This results in the elderly slowly withdrawing from relationships with the surrounding community so that it can influence social interaction. Reduced social interaction in the elderly can cause feelings of isolation and ultimately depression so this can affect the quality of life of the elderly (Wilson and Kundre, 2017).

Health-related quality of life (HRQoL) is a person’s perception in the context of culture and norms that are appropriate to the place of life of the person and related to the goals, expectations, standards and concerns throughout his life (Salim et al., 2007).

According to WHO, the four domains that serve as frameworks for quality of life include physical, psychological, social relations, and environmental domains. The health related quality of life of elderly is a functional condition of the elderly at optimal conditions, so they can enjoy their old age with meaningful, happy, and useful.

Concern for elderly health needs to be realized by providing broader outreach to access to health services and building public understanding of the importance of healthy, independent, active and productive living for the elderly. Health promotion behaviors in the elderly have potential effects in promoting health and quality of life and reducing the cost of health care services (Jannah et al., 2018).

Health Services at the Rumah Sehat Lansia (Rusela) is one of the mainstay programs of health promotion in the Yogyakarta City Health Office aimed at improving the health of the elderly. Rusela’s advantage is a free consultation with specialist doctors. Besides, health promotion in Rusela also includes management and prevention of diseases related to the elderly and optimal health improvement for the elderly. This program was ranked 15th in the public service innovation competition held by the Ministry of Administrative Reform and Bureaucratic Reform. Rusela is also expected to be able to encourage the elderly to carry out activities together with the surrounding community.

Social activities will affect the condition both physically and psychologically and will have an impact on improving the quality of life. Elderly social activities in Rusela can be a means for the elderly to take part in life and create a sense of purpose in their old days. Departing to Rusela together, meeting one another and exchanging greetings is also a useful social activity to improve the quality of life of the elderly. Social activities undertaken by the elderly both when participating in activities in Rusela enable the elderly to enjoy their old age happier, more useful, and of
quality. The role of a residential environment that supports the elderly, psychologically makes them feel valued and comfortable. Rusela is needed by the elderly as a promotive and preventive health service to realize quality of life the elderly. Since Rusela was established in 2013 there has never been an evaluation to participants in Rusela.

This study aims to examine the association between health-related quality of life with social activity at Rusela Facility, Yogyakarta, Indonesia.

**SUBJECTS AND METHOD**

1. **Study Design**
   This was a cross-sectional study conducted at Rumah Sehat Lansia (Rusela), a facility for elderly health care services, in Umbulharjo, Yogyakarta, from January to February 2019.

2. **Population and Sample**
   The population in this study were 320 elderly. A sample of 87 elderly was selected for this study purposively.

3. **Study Variables**
   The dependent variable was quality of life. The independent variable was social activity.

4. **Operational Definition of Variables**
   **Health-Related Quality of Life (HRQoL)** was a person's perception in the context of culture and norms that are relevant to the life of Yogyakarta and related to the goals, expectations, standards, and care throughout his life.
   **Social activity** was activities that are jointly carried out with the surrounding environment, used positively, and filled with a variety of activities. Elderly social activities are measured by the scale of social activities such as participating in activities in the elderly environment.

5. **Study Instruments**
   Researchers adopted a questionnaire modified from WHOQOL-BREF. Some questions that do not fit into the cultural conditions of Yogyakarta were discarded, for example, questions about sexual life in the elderly because it is taboo to ask.

6. **Data Analysis**
   Characteristics of the sample were illustrated in a frequency distribution table. The variables in this study were social activities and the quality of life of the elderly. Bivariate analysis was used with the chi-square test.

**RESULTS**

1. **Sample Characteristics**
   A description of the characteristics of the elderly including age and sex, social activity variables and the perception of the elderly about quality of life are described at table 1.

   Based on table 1, The majority of elderly were in the age group 56-65 years (57.60%), and female (78.20%). Among the elderly (60.90%) active in social activities and 54.00% have perception in good health related quality of life. The study found that the elderly actively involved in social activity at his/her neighborhood.

2. **Univariate analysis**
   Table 2 showed the distribution of social activity of elderly with residents at the neighborhood.

   Social activities carried out by the elderly consists of neighborhood or social group gathering activities, involved in the elderly integrated service post or Rusela, attending a wedding party in the neighborhood, came to visit a sick neighbor, involved in deliberation activities in the neighborhood, attending worship activities in the mosque/ church. The majority of social activities carried out by elderly were visiting sick neighbors (93.1%), attending a wedding party in the neighborhood (92.0%), exercise/ physical activity at elderly integrated service post or Rusela (90.8%) and mourn when a neighbors dies (89.7%).
Table 1. Univariate analysis of variable

| Characteristics | n     | Percentage (%) |
|-----------------|-------|----------------|
| **Age**         |       |                |
| 45 to 55        | 14    | 16.10          |
| 56 to 65        | 50    | 57.50          |
| 66 to 75        | 14    | 16.10          |
| 76 to 85        | 8     | 9.20           |
| 86 to 95        | 1     | 1.10           |
| **Gender**      |       |                |
| Male            | 19    | 21.80          |
| Female          | 68    | 78.20          |
| **Social Activity** |     |                |
| Active          | 53    | 60.90          |
| Non-active      | 34    | 39.10          |
| **Quality of life** |  |                |
| Good            | 47    | 54.00          |
| Poor            | 40    | 46.00          |

Table 2. Sample distribution of elderly based on social activities

| Questions                                                                 | n   | %   |
|---------------------------------------------------------------------------|-----|-----|
| Participating in social gathering activities in neighboring               | 64  | 73.6|
| Active in integrated elderly health post/elderly health care services “Rusela” | 62  | 71.3|
| Attending a wedding party in the neighborhood                             | 80  | 92.0|
| Visiting sick neighbors                                                   | 81  | 93.1|
| Visiting neighbors who were dies                                          | 78  | 89.7|
| Exercise/physical activity                                               | 79  | 90.8|
| Involved in deliberations activities in the neighborhood                 | 54  | 62.1|
| Attending recitation or worship activities in mosques/churches           | 54  | 62.1|

Table 3. Sample distribution of the quality of life in elderly

| Statement                                                                 | Yes | %   |
|---------------------------------------------------------------------------|-----|-----|
| Feeling satisfied with health                                             | 53  | 60.9|
| Never experienced physical pain that prevents from doing a daily life    | 62  | 71.3|
| Do not need to a medical treatment to function in daily life              | 38  | 43.7|
| Enough energy for everyday life and enjoy life                            | 16  | 18.4|
| Feeling life is more meaningful and be able to get around                | 38  | 43.7|
| Satisfied/feel comfort with ability to perform daily living activities   | 15  | 17.2|
| Facilities and infrastructure in the neighborhood make you feel healthy  | 85  | 97.7|
| Have enough money to meet daily needs                                     |     |     |
| a. Sourced from children                                                  | 78  | 89.7|
| b. Sourced from retirees                                                  | 39  | 44.8|
| c. Sourced from relatives or residents                                    | 62  | 71.3|
| Availability of information for life from day to day                     |     |     |
| a. Information from the radio                                             | 80  | 91.9|
| b. Information from television                                            | 81  | 93.1|
| c. Get information from the internet                                     | 78  | 89.7|
| Get information about the villages / conditions of Indonesia             | 79  | 90.8|
| Feel comfortable with people around                                       | 54  | 62.1|
| Feeling sleep well                                                        | 54  | 62.1|
| Feel confident in your own ability to do everyday activities             | 53  | 60.9|
| Feeling doing something according to ability                              | 62  | 71.3|
| Accept the condition of the body itself at this time                     | 38  | 43.7|
| Other people’s social relationships run smoothly                          | 16  | 18.4|
| Satisfied with the support obtained from friends                         | 38  | 43.7|
| Feel very comfortable with the current conditions of residence           | 15  | 17.2|
| Feel lonely, hopelessness, anxiety, or depression                        | 86  | 98.9|
3. The result of bivariate analysis
Table 4 showed the relationship between social activity and quality of life in elderly. Table 4 showed that elderly with active social activity more likely to have good health-related quality of life (43.70%) than those with non-active social activity (10.40%). Bivariate analysis showed that active social activity increased the likelihood of good health-related quality of life in elderly (OR=6.85; 95%CI=2.64 to 18.91; p<0.001).

| Social Activity | Quality of life | Total | OR  | p     |
|-----------------|-----------------|-------|-----|-------|
|                 | Poor            | Good  |     |       |
| Non-Active      | N   | %   | N   | %   | 6.85 | <0.001 |
| Active          | 25  | 28.70 | 9   | 10.40 | 34   | 39.10  |
|                 | 15  | 17.20 | 38  | 43.70 | 53   | 60.90  |

**DISCUSSION**

1. Characteristics of respondents
The study found that the most gender of respondents was female (78.20%). Men and women have different roles and access to and control over various sources so that the needs or things that are important for men and women will also be different. This indicates the different aspects of life about the quality of life of men and women (Andesty et al., 2018). Gender is one of the factors that influence the psychological of the elderly, so it will have an impact on various forms of adaptation (Putra et al, 2014).

The proportion of elderly aged 56-65 years approximately 57.50%. In contrast to studies (Rohmah et al., 2012), the age of respondents 63% were elderly aged 75-90 years. Differentiate of elderly’s age due to location. Rohmah’s researched at the home of Werdha, while this research was the elderly visited Rusela actively, so that middle-aged respondents were found to be actively involved in gatherings outside the home.

2. Elderly social activities
Based on the results of the univariate test analysis of social activity variables, it can be seen that 60.90% elderly have active categories in social activities. By the characteristics of elderly who are more than half (57.60%) aged 56-65 years in which at this age the elderly are still able to tolerate daily activities that can be done, but the elderly will ask for help from others to meet their social needs.

Human activities in the community such as participating in community service, social gathering, recitation, participating in deliberations, visiting the sick, mourn when neighbors die, helping activities that are built in the region itself, helping community members who need help, participate in cooking together as is the case in elderly villages that are active in social activities, such as being incorporated into the elderly community, will be a means for these elderly to exchange ideas, share experiences, and give attention to one another (Kusumaratna, 2008; Park et al., 2015; Kang et al., 2018).

In the community or group activities, themselves usually contain social activities or social activities that are one of the daily activities carried out by the elderly (Anaby et al., 2011; Sampao et al., 2013). To achieve quality aging, it must include active involvement in life.

3. The quality of life of the elderly
This study revealed that only 54.00% of respondents have perception in a good quality of life. This finding is consistent with a Hidayati et al. (2018), that most of the elderly have low QoL scores. This is because most of the elderly live at home and are still with their families so that the quality of life of the elderly is still guaranteed, besides the elderly can still accept the conditions that exist in themselves, the elderly can still do activities...
in accordance with their abilities, still feel happy, and can also enjoy old age with meaningful, useful and quality.

The quality of life of the elderly will get worse with increasing age (Sari, 2016). Age can cause changes in the way of life, changes in economic terms, chronic illness, physical strength, mental changes, and psychosocial (Nursilmi et al., 2017). However, increasing age is not a big problem for the elderly to improve their quality of life (Hidayati et al., 2018).

According to Bhatta et al. (2017) quality of life can be improved through different coping mechanisms, self-efficacy, social, psychological, structural and environmental adjustments. The quality of life of the elderly is influenced by several factors that cause an elderly person to remain able to be useful in his old age, namely the ability to adjust and accept all changes and setbacks experienced, the existence of respect and reasonable treatment from the elderly environment, in addition to gender, age, ethnicity or race, marital status, education, income, employment status, health insurance, and health factors also affect a person's quality of life (Rasyid., 2016).

Quality of life as an individual's perception of his life in society in the context of culture and norms related to goals, expectations, and satisfaction levels in living his current life which includes general quality of life, physical health, psychological, social and environmental relations (Fajriyah et al., 2018). Increasing the elderly population in the community causes the importance of considering their main needs such as physical, mental health and improving quality of life (Cheraghi et al., 2016).

This study is in line with Islamiyah et al. (2016), which states that the quality of life of the elderly who still work at Stella Maris Makassar Hospital is the most high quality of life, as many as 23 people out of 34 elderly.

This study is also in line with Samper et al. (2017), which states that the quality of life of the elderly at BPLU Senja Cerah, North Sulawesi Province has a high amount of quality of life of 59.40%. With a high quality of life, the elderly will enjoy their old age with activities that are useful and more meaningful.

4. The relationship between social activities and the quality of life of the elderly in Rusela Yogyakarta.

The results of study on the relationship of social activity with the quality of life of the elderly show that respondents with a good quality of life are more likely to come from respondents whose social activity is active (54.00%) and from respondents who are not active.

The quality of life of the elderly can be interpreted as the functional condition of the elderly being at a maximum or optimal condition, the quality of life is the extent to which a person can feel and enjoy the occurrence of all important events in his life so that his life becomes prosperous. The elderly who are always active and participate in many social activities are successful elderly.

According Fitriyadewi and Suarya (2016), the higher the social interaction carried out by the elderly, the higher the life satisfaction of the elderly. High life satisfaction can be achieved if the individual continues to carry out activities that he considers to be meaningful. One of the things that can create life satisfaction is social interaction. Interaction not only occurs with family members but also includes a wider social scope such as neighbors, friends from the office and so on. Forms of social interaction such as greeting, smiling to the point of taking part in the problem-solving process.

Social activity in the elderly can reduce anxiety in the elderly because the elderly can share with other fellow elderly through activities carried out together in social life so that
with social activities in their lives, it can improve the quality of life of the elderly. Good quality of life will also be owned by the elderly with the habit of regulating eating patterns, a good lifestyle, regularly checking their health and diligently following the counseling program (Nursilmi et al., 2017).

Group activity is one indicator of the quality of life of a person, where the quality of life of an elderly person is apparent from his participation in group activities, so that the quality of life of a person should be related to the decision making of a person to be active and participate in group activities or activities in the community (Anaby et al., 2011; Sampaio et al., 2013). Social participation and contribution of the elderly are expected to increase productivity, stability, and independence for the elderly (Arai et al., 2012). A good social activity of the elderly has a good quality of life, as well as the elderly who have poor social activities have a low quality of life because the elderly withdraw from the surrounding environment and this results in reduced quality of life of the elderly because the elderly with greater social involvement have enthusiasm and high life satisfaction and more positive adjustment and mental health than older people who are less socially involved. The enthusiasm and satisfaction of life experienced by the elderly cause the quality of life to improve. The elderly need special care services to maintain a high quality of life, living status and health (Khaje-Bishak et al., 2014).

**AUTHOR CONTRIBUTION**

Baiq Wardatul Minanand Helfi Agustin was collected data, conducted the study, analyzed the data, and wrote the manuscript.

**CONFLICT OF INTEREST**

The authors declare that they have no conflicts of interest.

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