



# Quality of Life, Health and Environment in Older Adults: Nursing House Stress Aging Assessment



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## Keywords

*elderly;  
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quality of life;  
stress aging;*

## Abstract

There are 20.24 million elderly in Indonesia or 8.03% of the total population. Increasing age will cause a decline in psychic, physical abilities and suffer from various diseases. The speed of the aging process depends on heredity and external factors that damage the fitness and health of the body. Some perceptions assume that the age of the elderly is the age of labile moments indicated by perceptions that include hope, feeling control and emotional responses. Based on these elderly problems. The subjects and objects of this study were elderly who lived in nursing homes in Central Java and Yogyakarta with an age range of 60-90 years. The research data was obtained participatory by distributing questionnaires and open interviews conducted to caregivers, administrators, and the elderly themselves. The results showed that the environmental conditions, health conditions, and quality of life of the elderly had a significant influence on stress aging. But different things happen when viewed from each variable. The quality of life of the elderly has a significant effect on the significance value of 0.001. Environmental conditions and health conditions do not affect the level of stress with the significance value of 0.203 and 0.813.

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## 1. Introduction

The increasing of the elderly number who occurred a serious problem in social life throughout the world. This also happens in Indonesia where the pyramid of Indonesia's population changes from a wide-based (high fertility) form to a dome-shaped mosque pyramid (fertility and low mortality) (Haripamilu, 2011). In Indonesia, there are 20.24 million people or around 8.03% of the total population of Indonesia. In addition, life expectancy increased from 68.6 years to 72 years (Kementrian Kesehatan Republik Indonesia, 2016). Increasing the elderly number will have an impact on decreasing the productivity per capita, except for the healthy and productive elderly. Increasing age will have an impact on the declining of psychological and physical abilities and suffer from various diseases. Aging process depends on the heredity and external factors that damage the fitness and health of the body. This is in accordance with the Indonesian government program in an effort to reduce the dimensions of the elderly by the life cycle approach (Kementrian Kesehatan Republik Indonesia, 2016).

Various physiological and pathological factors in the aging process cause a decrease in energy requirements. Changes in physical activity, immobilization can reduce the body's protein status, saliva production, the ability of the buds taste especially for sweet, salty, bitter and sour taste. According to Hardywinoto & Setiabudhi (1999), explained that there are seven developmental tasks that must be carried out by the elderly, namely: adjust physical and psychological decline, adjust income decreased, adjust on reality, dying, determining the meaning of life, finding satisfaction in family life, and maintaining life rules satisfied. Whereas according to Cavanaugh & Blachard-Fields (2006), successful aging are summarized in six things, including (a) no physical disability until the age of 75 years; (b) healthy physical condition shown in the no interference in daily activities; (c) longevity of having good mental health, still able to maintain the necessary of social support; (d) marriage life satisfaction, income and work production; (e) relationships with children, friends and establish good social contacts, having hobbies; and (f) as well as active in community service, religious, and recreational activities.

Based on the study above, it can be determined that physical, psychological, and social conditions are factors that can affect successful aging. Various perceptions assume that the elderly is a perception of unstable aging to expectations, control of feelings and emotional responses. Negative things happen to the elderly, stress will haunt the elderly in carrying out daily activities, especially for the elderly who live in nursing homes. Limited activities and limited environmental conditions can trigger the level of stress that occurs in elderly life. Based on the problems, it is encouraged to conduct research related to stress aging. This is done to find out the root problem of aging stress.

## 2. Materials and Methods

### *Research Subject and Object*

The research subjects in this study were elderly in the nursing home in Central Java and Yogyakarta. The nursing home selection is done randomly, state or private institutions. The research object is the occupants of the Panti Wredha with sample inclusion criteria: (1) Age 60 to 74 years according to WHO rules; (2) in a healthy condition; (3) Male and female gender.

### *Research Instruments*

The instruments in this study are: (a) stress arousal checklist questionnaire (Mackay et al., 1978), used to test the level of stress experienced by the elderly; (b) the *Profile of Mood States (POMS)* questionnaire, used to determine the mood or feelings of the elderly when they will be tested using the questionnaire stress arousal checklist (Mc Nair et al., 1981); (c) environmental questionnaire, used to determine the relationships between

the elderly and the environment; (d) health condition questionnaire, used to determine the health condition of the elderly; (e) quality of life questionnaire, used to determine the level of quality of life of the elderly by referring to the modified NIOSH questionnaire (WHO, 2004).

#### Collecting Data

Data collection was conducted with focus group discussions (FGD) in small groups and individuals with administrators, caregivers, and the elderly as users. Filling out the questionnaire was carried out with assistance from third parties, this was done by a research assistant. Research assistant in collected some data is aimed at not having misunderstood or objected from the elderly.

#### Research Procedures

The preparation stage is carried out by conducting interviews with administrators and caregivers to classify respondents and determining respondents who are included in the research inclusion criteria. Furthermore, several questionnaires were prepared will be used.

At this stage, the questionnaire stress arousal checklist, POMS, environmental conditions, health and quality of life were distributed. Each questionnaire was distributed in one-week intervals. The questionnaire was addressed directly to the elderly. If the elderly have difficulty reading and understanding the questionnaire, they are assisted in filling in through the research assistant. Data processing uses descriptive statistical methods and path analysis. Processing data was done by using SPSS and the calculation results are expressed in graphical form. While path analysis is intended to determine the stress of aging influenced factors.

### 3. Results and Discussions

The calculation of stress aging questionnaire cannot be done, if the mood condition of the elderly is not in good condition. The results of the Profile of Mood States (POMS) carried out on 30 nursing homes are shown in Figure 1 below.

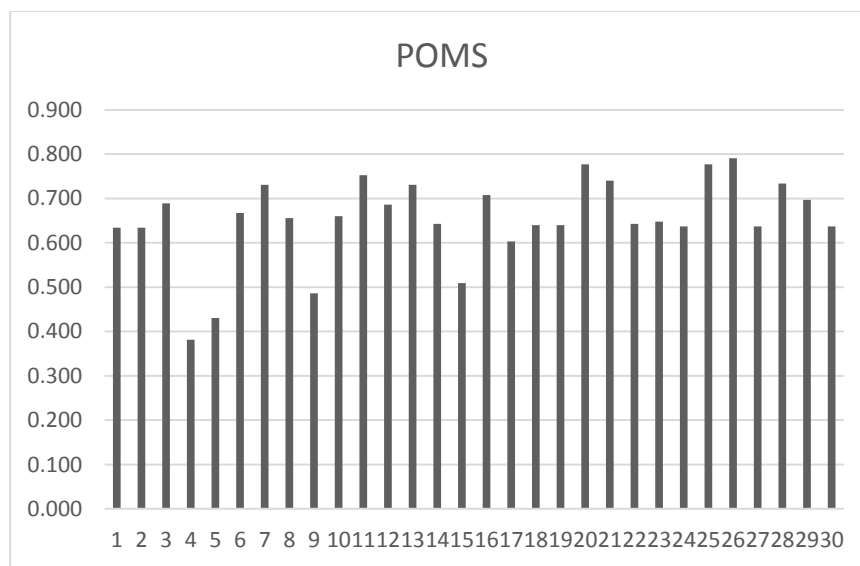
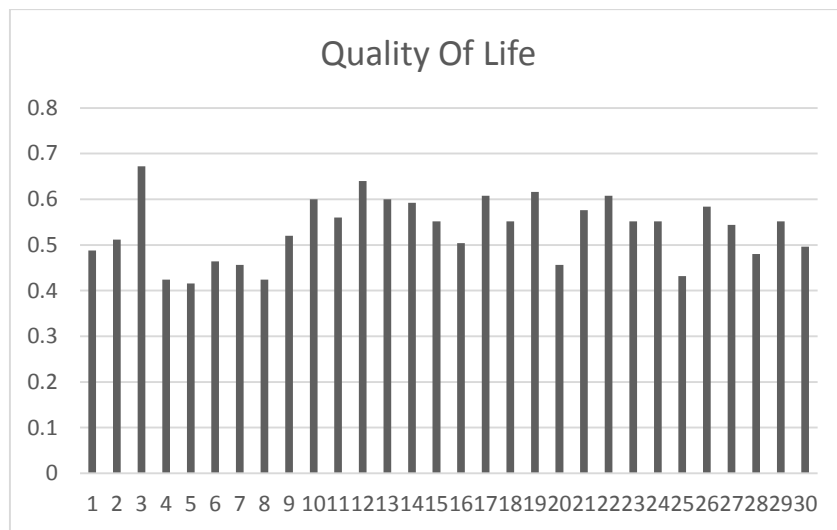


Figure 1. POMS test result

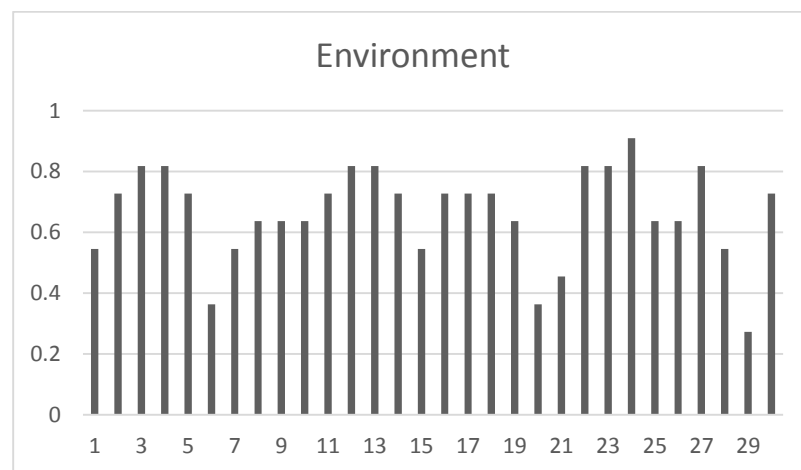
The results of the POMS calculation show that 86% of the total selected respondents are in a good mood with a minimum limit of 0.634 (Curran, 1995). POMS calculation results are used as a reference to continue the other questionnaire. The results of the questionnaire conducted in 30 selected nursing homes randomly

showed that there were 4 nursing homes with an elderly average mood value. This is indicated by the POMS score of 0.382, 0.431, 0.486 and 0.509.



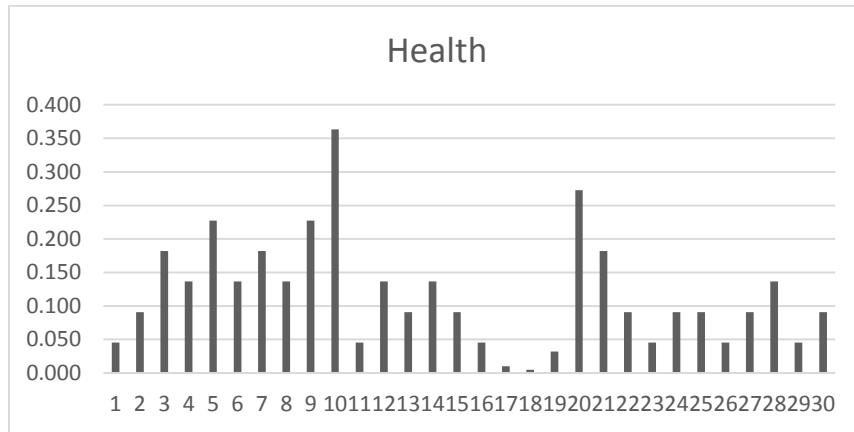
Figures 2. Chart of Quality of life

On the quality of life questionnaire result, it shows that of the total respondents in 30 selected nursing homes, 67% of the quality of life of the elderly was in above moderate position. While 33% of elderly living conditions are in bad condition. The biggest score on the elderly quality of life is at a score of 0.672, with the lowest score of 0.416. The elderly quality of life has big influential in increasing an elderly depression, indirectly this relationship can be affected by this elderly health condition (Becker *et al.*, 2018).



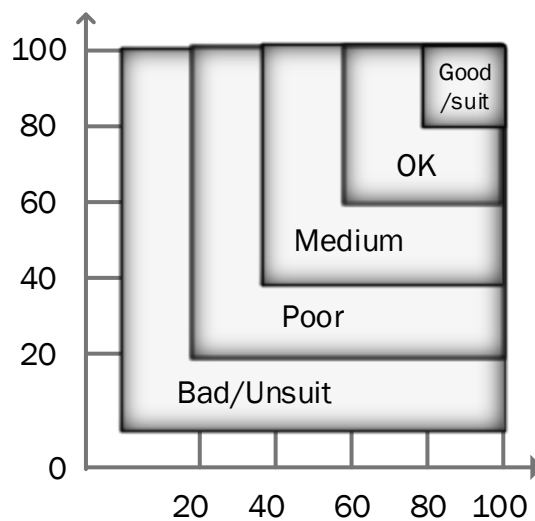
Figures 3. Environmental Chart

The result of each variable, environment showed that the highest value is in 0.909, then followed by the value 0.818 and the lowest value is 0.273. Questionnaire result showed that 87% of 30 nursing homes, respondents feel satisfied with this condition. Respondent satisfy significantly could be affected by elderly diseases and elderly mental health (Bektas, 2017).



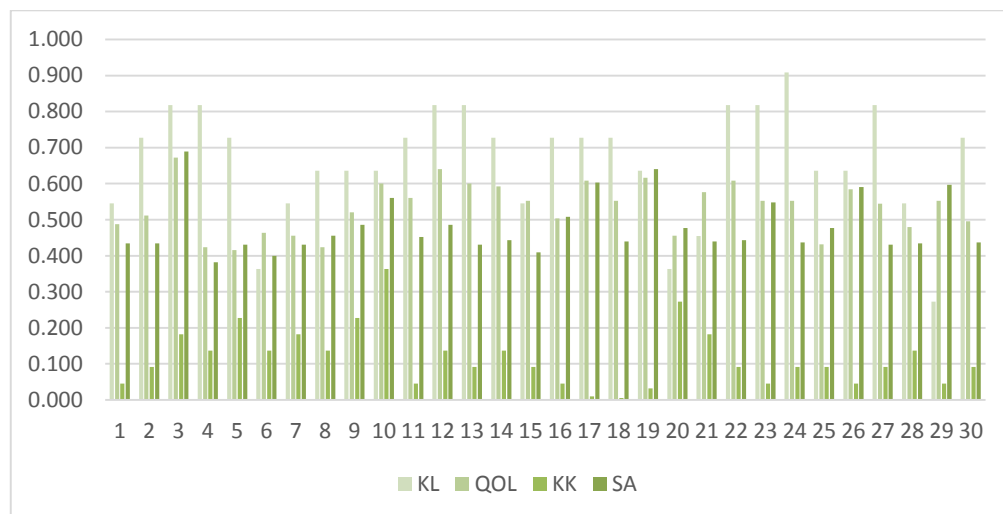
Figures 4. Health condition chart

Health conditions indicate that from the average questionnaire results to the elderly at each nursing home there is a health disorder with a number of 0.05. The questionnaire results showed that all respondents have complaints about health conditions, this is evidenced by the average value is below 0.50. The best health condition is showed with value of 0.364. This result indicated that a few elderly are have health problems. Many health problems are caused by the changes in elderly physiology. To knowing stress level and determine the level by using the Key Performance Index (KPI) as known:



Figures 5. Key Performance Index

Stress aging calculation can be shown by the chart below:



Figures 6. Comparison of environmental, quality of life, health condition, and stress aging

At the graphic above, show that 3% of elderly who live in the nursing house is in Good level of stress aging indicator. The highest values are shown as 0.689 and 0.640. 74% of elderly who lives in nursing homes are in OK level of stress aging indicator. 23% of the elderly are in a medium level of stress aging indicator. This result proves that generally, the elderly who has good health is the happiest elderly. The path analysis result is shown at the table below:

Table 1  
Path analysis result

Model	Sig.
Predictors	0,008
Environment	0,203
Health	0,813
Quality of Life	0,001

Path analysis result for three variables (environment, health condition, and quality of life) are significantly affected by stress aging. This is shown with the significance value of 0.008 ( $p < 0.05$ ). This result is followed by the research which has been done by [Bektas et al., \(2017\)](#), that environment factor has a huge effect in the elderly proinflammatory process. Another research proves that there is a relationship between healthy aging with social integration, especially for woman elderly ([Li et al., 2018](#)). In another research by [Akosile et al., \(2018\)](#), said that there is a significant correlation between elderly depression, quality of life and disability function

Another result is shown in each variable. In the result of each variable, quality of life is significantly affected in stress level with the significance value 0.001 ( $p < 0.05$ ). Furthermore, the environment and health condition are not significantly affected with each value are 0.203 and 0.813 ( $p > 0.05$ )

#### 4. Conclusion

Questionnaire result showed that 74% of elderly who lives in nursing homes are in OK level, 23% are in medium level, and 3% are in good level based on the stress aging key performance index. Based on the calculation it can be concluded that environment, health condition, and quality of life can be significantly

affected in stress aging level if it counts togetherness. But, if it takes in each variables, only quality of life which has significant effect compared with environment and health condition.

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