

# Caring for Quality of Life Among Elderly in Bandar Maharani, Muar, Johor, Malaysia

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## Abstract

**Background:** Modernization of Malaysians in many field especially in health sectors enhances the life expectancy of Malaysians. Malaysia is anticipated to become an ageing nation in 2030 accompanied by the rapid increase in the population of elderly globally. In Malaysia, the elderly constituted about 8.2% (2.4 Million) out of a population of 30 million people in 2012 and they will make up over 15% of the population by year 2030. **Aim:** Our objective is to assess the factors affecting the quality of life of elderly among the population in Bandar Maharani, Muar, Johor. **Methodology:** A descriptive, cross sectional study design based on the multi stage random sampling, residents aged above 60 years old and above was randomly chosen. Data was collected using self administered questionnaires that covered 4 domains which were the physical, psychological, social and environmental domain with 2 questions on general health satisfaction and quality of life. Data was analysed using PASW statistics student version 18. **Results:** It was found that most of the respondents rated “neither poor nor good” quality of life and “neither dissatisfied nor satisfied” health satisfaction. The environmental domain has the highest scores of quality of life, followed by social domain and also the physical domain. The least scores of quality of life was for the psychological domain. **Conclusion:** The study showed that although the respondents rated “neither poor nor good” for the quality of life, but looking into the domain wise quality of life, it was evident that some domain has the highest contribution of quality of life such as the environmental domain and some was weakly associated such as the psychological domain. Other domains such as social and physical can further be strengthened in order to improve the quality of life.

**Keywords:** Quality of life; Elderly; Caring.



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## 1. Introduction

### 1.1. Background of Study

Modernization of Malaysians in many fields especially in health sectors enhances the life expectancy of Malaysians. Malaysia is anticipated to become an ageing nation in 2030 accompanied by the rapid increase in the population of elderly globally. In Malaysia, the elderly constituted about 8.2 % (2.4 Million) out of a population 30 million people in 2012 and they will make up over 15% of the population by 2030 (A cross-sectional study on quality of life among the elderly in non-governmental organizations' elderly homes in Kuala Lumpur. (n.d.). Retrieved December 06, 2016, from <https://www.ncbi.nlm.nih.gov/pubmed/26753811>). However, longevity of life does not guarantee the quality of life. What determines the quality of life among the elderly in Malaysia?

## 1.2. Statement of Problem

Quality of life is described as wellness resulting from a combination of physical, functional, emotional and social factors. As the aging group increases, the quality of life among elderly becomes highly important. In the elderly, social aspects involve social networks and social support. Better social networks, which is linkages among group of known people, and better social support lead to better health outcome and well-being. Relationships protect from insecurity and psychosocial risk and hence are important for a good quality of life. The lack of meaningful social contacts also leads to withdrawal from social community.

## 1.3. Objective of Study

### General Objective

- To assess the factors affecting the quality of life of elderly among the population in Bandar Maharani, Muar, Johor.

### Specific Objectives

1. To determine the level of the quality of life and health satisfaction among elderly.
2. To determine the association between physical determinant and quality of life among elderly.
3. To determine the association between social factors and the quality of life among the elderly.
4. To determine the association between environment determinants and the quality of life of elderly.
5. To determine the association between psychological health on quality of life in elderly.

## 1.4. Significance of Study

It is vital to understand the stable and fleeting importance issues through which old age is created. By examining such issue, the changing nature of age related experiences can be placed in context as part of change.

Future application of the importance questions may facilitate understanding and recognition of importance issues as it varies among older adults according to their experiences. It is an important field for aging as well as for rehabilitation. For those interested in enhancing the life quality of older adults in a variety of settings, it is important to establish what aspects of quality of life are significant to older adults and whether the same aspects of life are equally important to various subgroups of elderly.

## 2. Literature Review

### 2.1. Previous Studies

#### 2.1.1. Physical Determinant

A few studies did compare on the physical domain. One of such study by [Tajvar, et al. \[1\]](#) reported impaired physical health among older age groups. As people grow older, the probability of developing physical health problems like musculoskeletal problems tends to increase in number. In another study by [MacRae, et al. \[2\]](#) it was said that Although the intervention group who participated in the walking program increased their walking endurance and distance after the 12-week program, the group had no significant changes in their Quality of life and so did the control group who received weekly social visits.

Also, lengthening the walking program to 22 weeks had no further significant changes in any walking measures and Quality of life. In a cross sectional study by [Ozcan, et al. \[3\]](#). The findings identified that the risk factors of fall, particularly balance, functional mobility, muscle strength and fear of fall, were correlated to elders' Quality of life.

#### 2.1.2. Social Determinant

Kumar et al., in a study in India also reported lowest score in the social domain [\[4\]](#). This might be due to the growing number of elderly that face abandonment and neglect in India. However, another studies have reported lower scores in the social domain compared to other domains. [Tseng and Wang \[5\]](#) studies showed that a medium rating of quality of life among residents. Activities of daily living, social support from nurses, socioeconomic status, and physical function were the significant predictors of quality of life. Another study by [Oleson, et al. \[6\]](#) revealed that the elders placed individuality as the highest value contributing to their quality of life. The elders mentioned numerous issues of individuality such as being independent, having financial freedom, private spaces and personal possessions. They verbalised that their quality of life could be promoted if nurses could spend time listening to their needs and treated the elders as individuals.

#### 2.1.3. Psychological Determinant

Other studies reported lower quality of life scores among women and attributed their findings to feelings of unattractiveness among elderly women, which could lead to low self-confidence and also contribute to negative perception of ageing among elderly women. In other hand, a study by [Leung, et al. \[7\]](#) revealed that concerning the components of quality of life, while the elders stressed on meeting the needs of their individual needs, the elders living at home placed their family members' needs over their individual needs. To release the stress, a music session was arranged in the studies done. [Burack, et al. \[8\]](#) study revealed that the elders' ability to communicate with others, care for self and help others were identified as the strongest components determining the elders' quality of life.

### 2.1.4. Environmental Determinant

In a quantitative and qualitative study done by Guse and Masesar [9] in Canada, most of the elders expressed that their quality of life was influenced by whether they had good mobility, private rooms, good food services and time to spend with family in their lives in homecare. They also concerned whether they were adequately respected and helped by others living in homecare. In another study done by Hikoyeda and Wallace [10] (in Japan, although Japanese and non-Japanese homecare differed in many structural features, such as physical layouts, staff's spoken language, activities and meal choices, elders from culturally different elderly were found to have no differences in their preferences and perceptions of Quality of life.

## 2.2. Theories of Physical and Psychological Aging

### 2.2.1. Cellular-Clock Theory

One of the biological based theories is the *cellular-clock theory* [11]. In this theory, cells are limited in the number of times they can reproduce to repair damage. Evidence for this theory is the existence of *telomeres*, structures on the ends of chromosomes that shorten each time a cell reproduces [12]. When telomeres are too short, cells cannot reproduce and damage accumulates, resulting in the effects of aging. (Sounds almost like what happens when the warranty is up on a car, doesn't it?)

### 2.2.2. Wear-And-Tear Theory

The theory that points to outside influences such as stress, physical exertion, and bodily damage is known as the *wear-and-tear theory of aging*. In this theory, the body's organs and cell tissues simply wear out with repeated use and abuse. Damaged tissues accumulate and produce the effects of aging. *Collagen*, for example, is a natural elastic tissue that allows the skin to be flexible. As people age, the collagen "wears out", becoming less and less "stretchy" and allowing skin to sag and wrinkle. (This process is not unlike what happens to the elastic in the waistband of one's underwear over time.)

### 2.2.3. Free-Radical Theory

The *free-radical theory* is actually the latest version of the *wear-and-tear* theory in that it gives a biological explanation for the damage done to cells over time. *Free-radicals* are oxygen molecules that have an unstable electron (negative particle). They bounce around the cell, stealing electrons from other molecules and increasing the damage to structures inside the cell. As people get older, more and more free radicals do more and more damage, producing the effects of aging [13, 14].

### 2.2.4. Activity Theory

*Activity theory* [15] proposes that an elderly person adjusts more positively to aging when remaining active in some way. Even if a career must end, there are other ways to stay active and involve in life. Elderly people who volunteer at hospitals or schools, those who take up new hobbies or throw themselves full time into old ones, and those who maintain their friendships with others and continue to have social activities have been shown to be happier and live longer.

### 2.2.5. Rate-For-Living Theory

*Rate-for-living theory* suggests that the body can do just so much work, and that's all; the faster it works, the more energy it uses, and the faster it wears out. Thus, speed of metabolism, or energy use, determines length of life. Fish whose metabolism is lowered by putting them in cooler water live longer than they would in warm water [16].

### 2.2.6. Autoimmune Theory

*Autoimmune theory* suggests that an aging immune body can become "confused" and release antibodies that attack the body's own cells. This malfunction, called *autoimmunity*, is thought to be responsible for some aging-related diseases and disorders [17].

### 2.2.7. Variable-Rate Theory

*Variable-rate theories*, sometimes called error theories, view aging as a result of random processes that vary from person to person. In most variable-rate theories, aging involves damage due to chance errors in, or environmental assaults on, biological systems. Other variable-rate theories focus on internal processes such as *metabolism* (the process by which the body turns food and oxygen into energy), which may directly and continuously influence the rate of aging [16, 18].

## 3. Material and Method

### 3.1. Introduction

A survey was planned to be conducted to examine the quality of life among elderly. The Quality of life was evaluated by the association analysis of 4 domains (physical, social, psychological & environmental) among those in age group of above 60 years old.

### 3.2. Study Design, Study Population & Study Area

This study was conducted in Bandar Maharani, Muar, Johor. The study involves the elderly population in Muar who are aged 60 years old and above. The elderly was mostly found around the town near the health care facility and also coffee shops. We also visited 3 geriatric homes in Muar.

### 3.3. Study Period

The study was conducted from end of October till the mid of December.

### 3.4. Sample

A probabilistic sampling was done in order to achieve a trustable result. The formula below is used to calculate the sample size. All elderly that meets the inclusion criteria of the survey will be included.

$$ME = z (\sqrt{p^{\wedge}(1 - p^{\wedge}) / n})$$

- ME is the desired margin of error
- z is the z-score, e.g. 1.645 for a 90% confidence interval, 1.96 for a 95% confidence interval, 2.58 for a 99% confidence interval
- $p^{\wedge}$  is our prior judgment of the correct value of p.
- n is the sample size

ME is set at 0.005, z-score set at 1.96, p is set at 0.5 :

$$n = 0.5 * 0.5 / (0.005 / 1.96)^2$$

$$= 384 \text{ participants}$$

### Inclusion & Exclusion Criteria

The eligibility criteria for the inclusion in the study included the following :

- Malaysian male and female of age 60 years old and above and able to understand and answer the survey.

The exclusion criteria in the study :

- Foreigners, being less than 60 years old and who is under the influence of the medications such as psychotropic drugs, being incarcerated, having a serious health condition that causes any difficulty in understanding and answering the survey.

### 3.5. Sampling Process

Based on our research title and the sample size, we have decided to choose the multi stage random sampling method for our research. It is a type of probability sampling.

The map of Muar was obtained from the District Health Office and the 12 zones in Muar was identified. From the 12 zones, one zone was chosen randomly, which was Bandar Maharani. The zone was then divided further into 10 subzones. From the subzones, 3 subzones was chosen randomly and the study was conducted in that specific subzones, which were Sri Maharani, Sakeh and Sungai Abong. A total of 400 survey questionnaires was prepared and was divided among these 3 subzones.

### 3.6. Ethical Consideration

The Medical Research Ethical Committee of Asia Metropolitan University has approved the research. The permission was obtained from the health care facility in charge and the owners of the coffee shops. All participants were given detailed information about the study which includes the study objectives and confidentiality. A written consent was signed by each of the respondent.

### 3.7. Instruments

A structured close-ended questionnaire was utilised in this study. The first part of this questionnaire included information on general socio-demographic characteristics such as Gender, Age, Marital Status, Race, Religion, Average Income, Current Occupation and Number of children.

The next part included a validated quality of life measurement instrument: The WHOQOL-BREF (World Health Organisation Quality of Life Assessment Instrument BREF). This Quality of life measurement instrument is a short version of a generic World Health Organisation Quality of Life assessment instrument (WHOQOL-100) [19]. The questionnaire is a self administered survey that has been developed with a trans cultural focus on Quality of life as perceived by the person [20]. The survey was designed to take time about 15-20 minutes.

The survey in this study has a total of 26 questions, of which they were from WHOQOL-BREF which provides a fast profile of 4 areas/domains.

From those 26 questions, 2 questions were related to general health and overall quality of life, and the following 24 questions provided a broad and comprehensive assessment of the quality of life of a participant [19]. Each questions of the WHOQOL-BREF instruments had five of the answer choices according to the ordinal Likert scale from score 1 to 5 (1 indicating the least core and 5 indicating the highest score). The scores was later used to determine the Quality of life.

All of those represents a profile of 4 domains: physical, social, psychological and environment. The 26 items was categorised into Physical (7 items), Psychological(6 items), social (3 items) and environmental(8 items).

**The following are the items that contributed to the physical domain**

- 3. *To what extent do you feel that physical pain prevents you from doing what you need to do?*
- 4. *Do you depend on any medical treatment to function your daily activities?*
- 10. *Do you have enough energy to function in everyday life?*
- 15. *How well are you able to get around?*
- 16. *Do you have enough sleep?*
- 17. *How satisfied are you with your ability to perform your daily living activities?*
- 18. *How satisfied are you with your capacity for work?*

**The following are the items that contributed to the psychological domain**

- 5. *How much do you enjoy life?*
- 6. *To what extent do you feel your life to be meaningful?*
- 7. *How well are you able to concentrate?*
- 11. *Are you able to accept your bodily appearance?*
- 19. *How satisfied are you with yourself?*
- 26. *How often do you have negative feelings, such as blue mood, despair, anxiety, depression?*

**The following are the items that contributed to the social domain**

- 20. *How satisfied are you with your personal relationship?*
- 21. *How satisfied are you with your sex life?*
- 22. *Do have the opportunity to gather with your friends?*

**The following are the items that contributed to the environmental domain**

- 8. *How safe do you feel in your daily life?*
- 9. *How healthy is your physical environment?*
- 12. *Have you have enough money to meet your needs?*
- 13. *Is it easily accessible ti\o any information that you need in your day-to-day life?*
- 14. *To what extent do you have the opportunity for leisure activities?*
- 23. *How satisfied are you with the conditions of your living place?*
- 24. *How satisfied are you with your access to health services?*
- 25. *How satisfied are you with your mode of transportation?*

The reliability of the instrument was given as such that the intra rater reliability was excellent with a range of 0.84-0.93 across the four domain and the inter rater reliability was is adequate to excellent with a range of 0.56-0.95 across the four domain by the previous study done by Castro, *et al.* [21] (Wall, S. R., Scherf, C. F., Morison, L., Hart, K. W., West, B., Ekpo, G., .Borysiewicz, L. K. (2005). The Malay version was validated in the previous study and was found to have a Cronbach Alpha from 0.64 to 0.80 (A cross-sectional study on quality of life among the elderly in non-governmental organizations' elderly homes in Kuala Lumpur. (n.d.). Retrieved December 06, 2016, from <https://www.ncbi.nlm.nih.gov/pubmed/26753811>). The instrument was used if both English and Malay language which was administered by trained native speakers of each language. A pilot study and validity tests was conducted before the actual study commenced.

**3.8. Validity and Reliability**

Pilot testing was performed with the instrument chosen from the World Health Organisation quality of life. A total of 30 participants were chosen from the target population who met the inclusion criteria for the study were pilot surveyed. They completed the preliminary survey and gave individual feedback about the content, wording and clarity and the estimated timing to complete it. After the pilot test, the survey was revised based on the participants' reviews.

Content Validity is used to ensure that the measure is actually measure what it is intended to measure (i.e. the content), and not other variables. Using a panel of "experts" familiar with the content, the of validity can be assessed. The experts can examine the items and decide what that specific item is intended to measure. Students can be involved in this process to obtain their feedback. The panel of experts suggested to rephrase a few questions from the original questionnaire and the suggestion was taken. The new questionnaire was then prepared for the actual survey. The content validity index was calculated. Out of the 3 chosen experts, all of them rated all the questions as relevant. The content validity had a result of 89%.

Face validity refers to the measure appears to be assessing the intended construct under study. The researchers can easily assess face validity. Although this is not a very "scientific" type of validity, it may be an essential component in enlisting motivation of researchers. If the researchers do not believe the measure is an accurate assessment of the ability, they may become disengaged with the task. The easiest method to determine the face validity is by the Pilot test that was done earlier. The Cronbach's alpha was from 0.76 to 0.86. The reliability of the test showed a Kappa coefficient that ranged between 0.623 to 0.758 across the four domains.

**3.9. Data Analysis**

The collected data was entered into Excel sheet and interpreted by using PASW Statistics Student Version 18. Data analysis including descriptive statistics (frequency, percentage, means and standard deviation) was used to



summarize and describe the data. The study showed a normal distribution by means of calculating the skewness (all within the range  $-2 < \text{skewness} < 2$ ).

### 3.10. Data Cleaning

Upon receiving the data, the data was ran through Statistical Package for Social Sciences (SPSS) to get the descriptive statistics of the data obtained. However, there were a few significant outliers detected that was later on removed as part of data cleaning process. The outliers were replaced by using the mean value for the question.

## 4. Results

The baseline characteristics of all the 384 participants are given in TABLE 1.1. The table shows that half of the respondents are males with a frequency of 52% and the rest are females. Three fifth of the respondents was within the age group of 60 to 69 years old. About 31% of respondents are within the age group of 70 to 79 years old. The rest of the respondents fall within the age group of 80 years old and above. About 300 of the respondents were married and the rest were divorced or widowed. Most of the respondents were Muslims. Next in line are the Buddhist with 114 respondents. With 57 respondents, is the Christian religion and following that will be the Hindu religion. The other religions were minorities and consists of less than 5% of the total respondents. Concerning the current occupation, most of the elderly were retired and the remaining respondents were divided almost equally with a percentage of around 15% for each of the following, business and homemakers. The average income of the study population was around RM 0 to RM 1499 due to most of them were retirees. About 85 respondents refused to answer the question. The remaining respondents had an average income of RM 1500 to RM 2999 (16.4%) and RM 3000 and above with a frequency of 37 respondents. Half of the population had 3 to 5 children and 34.6% had 0 to 2 children. 2 of the elderly had 12 to 14 children. The rest are in between 6 to 11 children.

**Table-1.** Sociodemographic Characteristics of Elderly in Muar, Johor

Characteristics	Groups	N(%)
Gender	Male	199(52)
	Female	185(42)
Age	60-69	238(61.98)
	70-79	119(30.99)
	80-89	25(6.51)
	90 and above	2(0.52)
Marital status	Single	84(21.88)
	Married	300(78.13)
Race	Malay	139(36.20)
	Indian	68(17.71)
	Chinese	159(41.41)
	Others	18(4.69)
Religion	Islam	145(37.76)
	Hindu	49(12.76)
	Buddha	114(29.69)
	Christian	57(14.84)
	Others	19(4.95)
Current occupation	Business	54(14.06)
	Retired	271(70.6)
	Homemaker	59(15.4)
Average income	Rm 0-1499	199(51.82)
	Rm 1500-2999	63(16.41)
	Rm 3000-4999	27(7.03)
	Rm 5000-7999	10(2.60)
	Refused to answer	85(22.14)
Number of children	0-2	133(34.64)
	3-5	192(50)
	6-8	50(13.02)
	9-11	7(1.82)
	12-14	2(0.52)

The rate of quality of life as shown in Table 2 was nearly half (46.61%) for “neither poor nor good”. The least rate was given to the “very poor” quality of life (0.52%). Next is the “poor” quality of life, “very good” quality of life and “good” quality of life with percentages of 7.29%, 8.59% and 36.98% respectively. The health satisfaction (Table 3) was rated in the following order from highest to lowest, in which most of the respondents rated for “neither dissatisfied nor satisfied” (42.19%), about two-fifth of participants rated for “satisfied” (38.8%), followed by the “dissatisfied” (13.54%) and 1.17% rated for very satisfied health. None rated their health as very dissatisfied.

**Table-2.** The rate of quality of life and health satisfaction

		Very Poor	Poor	Neither Poor Nor Good	Good	Very Good
1)	How would you rate your quality of life?	2 (0.52%)	28 (7.29%)	179 (46.62%)	142 (36.98%)	33 (8.59%)

**Table-3.** The level of health satisfaction

		Very Dissatisfied	Dissatisfied	Neither Satisfied Nor Dissatisfied	Satisfied	Very Satisfied
2)	How satisfied are you with your health?	0 (0.00%)	52 (13.54%)	162 (42.19%)	149 (38.8%)	21 (5.47%)

The mean score for quality of life was found to be 11.03 (standard deviation [SD] =2.804) as shown in Table 4. While grading the Quality of life, only 12.43% (95% confidence interval [CI]: 9.13-15.73) of the study participants were found to have "very good" Quality of life, 56.32% (95% CI: 51.36-61.28) had "moderately good" Quality of Life, another 35.78% (95% CI:21.4-30.16) had "moderately poor" Quality of life whereas 5.47% (95% CI: 3.2-7.74) of study participants were suffering with "very poor" Quality of life.

**Table-4.** The total level of quality of life in general

Median, Mean (SD)	Very Poor		Moderately Poor		Moderately Good		Very Good	
	N(%)	95% CI	N(%)	95% CI	N(%)	95% CI	N(%)	95% CI
12.00, 11.03 (2.804)	84 (5.47)	3.2 -7.74	396 (25.78)	21.4 -30.2	865 (56.32)	51.36 -61.28	191 (12.43)	9.13 -15.73

While doing domain-wise analysis, Quality of life score was least in the psychological domain (mean was 2.58, SD = 1.001) where almost one-fifth of the elderly (19%) had "very poor" Quality of life and 23.2% had moderately poor Quality of life.

Highest mean score was for environmental Quality of life (mean = 2.96, SD = 0.616) followed by social domain (mean = 2.76, SD = 0.665) and then physical domain (mean = 2.73, SD = 0.522) where the proportion of elderly women falling under "very poor" Quality of life were 5%, 2.3%, and 0%, respectively which can be referred in table 5 to table 8.

**Table-5.** Physical domain , Quality of life level of study participants

Median, Mean(SD)	Moderately Poor		Moderately Good		Very Good	
	N(%)	95% CI	N(%)	95% CI	N(%)	95% CI
3.0, 2.73 (0.522)	119 (31.0)	26.37 -35.63	251 (65.4)	60.64 -70.16	14 (3.6)	1.74 -5.46

**Table-6.** Psychological domain , Quality of life level of study participants

Median, Mean(SD)	Very Poor		Moderately Poor		Moderately Good		Very Good	
	N(%)	95% CI	N(%)	95% CI	N(%)	95% CI	N(%)	95% CI
3.0, 2.58 (1.001)	73 (19)	15.08 -22.92	89 (23.2)	18.98 -27.42	150 (39.0)	34.22 -43.98	72 (18.8)	14.89 -22.71

**Table-7.** Social domain , Quality of life level of study participants

Median, Mean(SD)	Very Poor		Moderately Poor		Moderately Good		Very Good	
	N(%)	95% CI	N(%)	95% CI	N(%)	95% CI	N(%)	95% CI
3.00, 2.76 (0.665)	9 (2.3)	0.8-3.8	114 (29.69)	25.13 -34.27	220 (57.3)	52.35 -62.25	41 (10.7)	7.61 -13.79

**Table-8.** Environmental domain , Quality of life level of study participants

Median, Mean(SD)	Very Poor		Moderately Poor		Moderately Good		Very Good	
	N(%)	95% CI	N(%)	95% CI	N(%)	95% CI	N(%)	95% CI
3.00, 2.96(0.616)	2(5)	2.82 -7.78	74 (19.3)	15.35- 23.25	144 (63.5)	58.68 -68.32	64 (12.5)	12.97 -20.43

## 5. Discussion

The environmental domain of quality of life had the highest mean score 2.96 with a standard deviation of 0.616 in this study, while the psychological domain had the lowest mean score 2.58 and a standard deviation of 1.001. According to the World Health Organization [22], the physical environment in which the elderly is inserted may determine the individual's dependence or not. Therefore, it is more likely for the elderly people to be active physically and socially if their mobility is good. Elderly people who live in unsafe environments are less likely to go out alone and, therefore, are more susceptible to loneliness and depression, as well as to having more moving out and socializing problems and worse physical condition, which influence the quality of life.

Although the psychological domain had the less significant contribution to the quality of life of the elderly assessed in this study, and the social domain did not show a significant contribution, we have to consider the psychological and social insertion changes by which the elderly individuals go through, in order to minimize the effects of such changes resulting from the age on the quality of life of these subjects. According to a study done by Pereira, *et al.* [23]. The subjective evaluations of the quality of life of the elderly should focus on what happens to the individual in the different aging stages, from physical changes to the social devaluation as a consequence of retirement, considering what is their feeling and understanding of these situations, their psychological gains and losses, their frustrations and aspirations. In this sense, according to Santos *et al.*, the quality of life of the elderly comprehends the consideration of several biological, psychological and sociostructural criteria, since several elements are pointed as being a determinant or indicator of well-being in old age: longevity, biological health, mental health, satisfaction, cognitive control, social competence, productivity, cognitive efficacy, social status, continuity of family and occupational roles, and continuity of informal relationships with friends.

Social domain topped the list as the second highest mean score. However, Kumar, *et al.* [4] in a study in India reported lowest score in the social domain. This could be as a result of the growing number of elderly that face abandonment and neglect in India. Another study that found to support the findings of Kumar *et al.* was a study done by Bodur and Cingil [24] (in which it revealed that social and environmental domains of life quality are low in elderly assisted living facilities. The study done by Helgeson [25] stated that there is a very strong relationship between social domain and also the quality of life.

Physical domain is found to be having a low mean score. The studies done by Tajvar, *et al.* [1] have reported lower scores in the physical domain compared to other domains which is similar to the results of the Caring for quality of life study. This is due to these studies were conducted in nursing homes, and such homes usually admit people with varying degrees of impaired physical function. Age was not significantly associated with any of the domain. Anyways, the study by Tajvar, *et al.* [1] reported impaired physical health among older age groups. This is most probably because the older age group had more functional limitations compared to the younger age groups. As people age, the probability of developing physical health problems like musculoskeletal problems tends to increase. As highlighted by Néri, the more active the elderly person, the higher their life satisfaction and, consequently, the better their quality of life. This is particularly important in communities such as the one assessed in this study, in which the work is predominantly agricultural and domestic, and can be done during the entire person's life.

## 6. Conclusion

The results of this study showed that most of elderly in Muar has rated their quality of life as neither poor nor good and their health satisfaction was given a level of neither satisfied nor dissatisfied. Domain wise, the respondents had a weakly associated quality of life scores in the psychological domain in comparison to other domains. The elderly in Muar has a very good score of quality of life under the environmental domain. The social domain showed that the elderly has a good score and their social life was good. On the other hand, the physical domain contributed a moderate score of quality of life. These results actually increase the need for a proper geriatrics intervention to avoid the deterioration of quality of life of the elderly of upcoming generation.

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