The quality of life of the elderly in the 2017 project on geriatric sociology in the two provinces of ICA, Peru

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Abstract: Objectives: To determine the quality of life of the elderly in the social programs for the elderly in the two provinces of Ica, Peru in 2017. Methods: This is a non-experimental, descriptive and cross-sectional study. The population consists of the elderly in the provinces of Ica, Palpa (N = 65) and Nasca (N = 30) in Peru. The analysis unit is mainly the group of adult participants in the geriatric sociology project. The quality of life was assessed by SF-36 health questionnaire. Result: 90% of the elderly in Nasca province had a high-quality mental health life; And 60% people had a regular quality of life based on vitality. In the Palpa Social Gerontological Program, 81.5% of the elderly had a higher quality of life in terms of mental health, but a lower quality of life in terms of physical health (63.1%). Conclusion: The quality of life of the elderly in Nasca Social Gerontological Program is higher than that of the elderly in Palpa Gerontological Program.

Keywords: Quality of life; The elderly; Health services; Peru

1. Introduction

The World Health Organization (WHO) (2018) defines the quality of life as a person’s place in the culture and the value system in which he lives, as well as views related to his goals, expectations, standards and concerns. This is a very broad concept, which is affected by the subject’s physical health, mental state, and degree of independence, social relations and the relationship with the basic elements of the environment. Therefore, due to the complexity of its definition, its evaluation should take into account the eight dimensions that make up it (see Table 1).

Using the SF-36 health questionnaire developed during the medical outcome study (MOS), this study measures the general health concepts related to age, disease and treatment, provides a comprehensive, efficient and psychometrically sound method for measuring health from the perspective of each patient, and scores the standardized answers to standardized questions (Municipal Institute of Medical Research, 2000). This instrument needs to be implemented among the elderly population groups belonging to the social programme for older persons, which is characterized as a space for generations to put off the aging process through sports activities, entertainment, personal empowerment and family support programme. The reason is that Peru’s population pyramid has been reversing for 66 years, rising from 5.7% of the elderly population in 1950 to 9.7% in 2016 (National Institute of Statistics and Information, 2016).
The quality of life of the elderly in the 2017 project on geriatric sociology in the two provinces of ICA, Peru

Table 1. Dimensions of quality of life

<table>
<thead>
<tr>
<th>Size</th>
<th>Description of</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical function</td>
<td>The extent to which health limits physical activity.</td>
</tr>
<tr>
<td>Physical role</td>
<td>The degree to which physical health interferes with work and other daily activities.</td>
</tr>
<tr>
<td>Physical pain</td>
<td>Assess the intensity of pain and its impact on normal work.</td>
</tr>
<tr>
<td>General health</td>
<td>Personal health assessment.</td>
</tr>
<tr>
<td>Vitality</td>
<td>Feeling tired or energetic rather than tired.</td>
</tr>
<tr>
<td>Social function</td>
<td>The extent to which physical or emotional health problems interfere with daily social life.</td>
</tr>
<tr>
<td>Emotional role</td>
<td>The extent to which emotional problems interfere with work or other daily activities.</td>
</tr>
<tr>
<td>Mental health</td>
<td>General mental health.</td>
</tr>
</tbody>
</table>

Source: The data were taken from the Spanish scoring Manual of SF-36 (2000) health questionnaire.

According to the report of Peru: the health status of the elderly (National Institute of Statistics and Information, 2016) is that they suffered from the most common disease of hypertension, hypercholesterolemia, urinary tract infection, diabetes and respiratory diseases. Therefore, it is necessary to implement a comprehensive health program in Peru’s private and public health institutions. Its main task is to provide necessary tools to maximize the quality of life of this population and realize the rights contained in the Elderly Act No. 30490.

Finally, it is worth noting that the purpose of this study is to improve the quality of life of the elderly within the Social Gerontological Program, to promote the redesign of services provided in future projects and research and to provide comprehensive and targeted care for the target population. In addition, the agency feedback will be promoted when studying the benefits of health programs in the same but in different provinces.

2. Theoretical Background

Tremolada Tovar (2017) analyzed the relationship between health-related quality of life (HRQOL) and sense of coherence (SOC) of the elderly in Lima elderly center. 40 people aged between 68 and 92 were interviewed. HRQOL adopts the Spanish version of SF-36 and SOC adopts SOC-29 questionnaire. The results showed that HRQOL had the highest mental health dimension and SOC. The mental health dimension of HRQOL was significantly correlated with SOC. Moderate correlation between general health, physical function, physical role and two components in the field of HRQOL and SOC (mental health and physical health), including some correlation with total SOC. Finally, we found differences in quality of life according to gender, the existence of chronic diseases, education level, outdoor activities and physical exercise.

The goal of Pacompia Sucapuca (2015) is to determine the quality of life of older persons treated at the Puno Simon Bolivar health center. This study is a descriptive cross-sectional study. The samples are from 40-year-old men and women. The tool used in the interview is the clinical assessment of the elderly (VACAM). The study found that although the indicators of urinary incontinence were most affected, the independent functional level of the elderly was 67.5%. Among them, 55% believed that cognitive state was moderate cognitive impairment, and the most affected index was computing ability, 62.5% were characterized by severe depression, and 57.5% were considered to have social problems.

Ferreira Santos, Malagoni Almeida Cavalcante Oliveira, Alves Barbosa, et al. (2015) aimed to describe the quality of life of older people participating in health promotion groups. It is a quantitative research. The population consists of persons registered in the Family Health Primary Care Unit (FHPCU) who participated in a health promotion group. Social demographic knowledge volumes used WHOQOL-BREF (test developed by the WHO to assess quality of life) and WHOQOL-OLD (test developed by the WHO to assess the quality of life of older adults). The results showed that most of the elderly thought their quality of life was good or very good (76.9%), but almost all of them were dissatisfied with their health (92.4%).

Medina Espejo (2014) identified the impact of recreational activities on the quality of life of people belonging to the Center for the Elderly Pablo Bermudez-Jesus María 2011. It is a descriptive, prospective and relevant study. The survey shows that women are dominant, with a low quality of life of 70% physical function, 80% vitality, 70% general health, 60% social function, 70% emotional role and 75% mental health. And body pain is as high as 60%. Among the surveyed elderly, leisure activities are insufficient in the dimensions of social relations (55%), physical activity (70%) and productivity. The results show that the leisure activities of urban residents are insufficient and the quality of life is low.

Martin Valero, Cuesta Vargas and Labajos Manzanares (2013) assessed the cardiopulmonary function outcomes and the values of the quality of life for inactive people who participated in the Physical Activity Promotion Program (PAPP) but did not participate in the program. The study was a randomized controlled trial involving 100 male and female. The sample was randomly selected by system. The effectiveness of PAPP was measured according to general health status,
Short Form 12 of health questionnaire and EuroQol-5D of quality of life questionnaire. According to Bruce protocol, cardiopulmonary function was measured by spirometer and walking test. Therefore, when comparing the quality of life of the two groups of patients, the change of quality of life of PAPP male patients measured by EQ-5D was statistically significant. However, the quality of life of women did not improve significantly. The changes of cardiopulmonary function were not correlated between the two groups. Each group had a significant effect on the pulmonary function score of men in the experimental group.

Cordova Calle (2012) identified, analyzed and discussed the quality of life of the people served by the elderly programme of the Chiclayo Regional Police Hospital. This study adopted a combination of qualitative research and case study; The data were obtained through social demographic knowledge volume and semi-structured in-depth interviews with 21 people, including retired police officers and their partners who participated in the elderly program in the Regional Hospital of the Peruvian National Police. The interview data were processed according to the content correlation method, and there were two types of “family as the determinant of the quality of life of the elderly” and “lifestyle and function of the elderly”. The study found that retirees’ satisfaction with the quality of life depended on their children’s success in professional development, new family formation, economic achievements, family support, support and love for the elderly and finally, positive communication and interpersonal relationships among family members. Defining the social role by working away from home makes them feel useful to society, which increases this life satisfaction.

Jimenez Rinza (2012) aimed to identify, explain and understand the experience of older persons in sports activities and socialization programmes. Using the creative and sensitive method of Cabral, the Yearbook dynamics were also used in two meetings, and a sample was selected from seven elderly people. The study was conducted at the Center for the Elderly (CAM)-Chiclayo. Group interview, group discussion and participatory observation were also used. The study group found that by participating in sports activities and socialization programs, they experienced social integration, motivation and emotional well-being. In addition, they got good health, built friendships with other members, and showed solidarity with colleagues.

3. Methodology

These are non-experimental, descriptive and cross-sectional studies. Set up the cooperation with the elderly of the social program for the elderly in the provinces of Ica, Palpa (N = 65) and Nasca (N = 30) in Peru. The unit of analysis was each elderly person attending the Social Gerontological Program of the provinces of Palpa and Nasca. In order to collect information, we used the management questionnaire technology. The tool is the SF-36 health questionnaire developed during the Medical Outcome Study (MOS), which obtains the quality of life level according to eight dimensions: physical function, physical role, physical pain, general health, vitality, social function, emotional role and mental health. The tool has been validated by the international quality of life assessment project (IQOLA), which includes researchers from 15 countries determining a Cronbach’s Alpha Coefficient (reliability) greater than 0.7 in all dimensions (range: 0.71 to 0.94), except for the social function scale (α = 0.45). The intra class correlation coefficient between the two management levels in the questionnaire ranges from 0.58 to 0.99 (Vilagut et al., 2005).

In this study, we conducted a Pilot Test to analyze the reliability of each dimension evaluated by SF-36 health questionnaire, using Cronbach’s Alpha tests for polychotomous dimensions and KR20 test for dichotomous dimension. Therefore, the reliability of physical function (0.944), physical pain (0.901), vitality (0.914) and mental health (0.877) is very high as well as the high reliability of general health (0.792), social function (0.774), physical role (0.7100) and emotional role (0.6964).

According to the data obtained from SF-36 health questionnaire, a matrix was created for each population and recoded according to the questionnaire manual. Then, the data were analyzed by one-dimensional and multivariate descriptive statistics.

3.1 Nasca Social Gerontological Program

The average age of the respondents was 75.80% of the population are women. The remaining 20% are men.

According to the data of SF-36 health questionnaire, the elderly have high quality of life in 7 of the 8 dimensions, namely:

- Your physical health does not limit your daily activities, such as taking care of yourself, walking, climbing stairs, bending over, snatching or loading.
- Their performance in daily activities or work is not lower than their wishes and goals.
- It does not refer to physical pain in daily work.
- Your future health prospects are positive and resistant to constant illness.
- Your physical or emotional health problems will not interfere with your daily social life.
- You may have emotional problems that won’t interfere with your work or other daily activities.
The quality of life of the elderly in the 2017 project on geriatric sociology in the two provinces of ICA, Peru

- He manages to control his behavior and emotions in different situations.

60% of the subjects had a regular quality of life level according to the vitality dimension, indicating that their energy and vitality were unstable and often matched with fatigue. In 7 days of a week, there are 4 days they may feel tired and 3 days they may be energetic for activity (see Table 2).

Table 2. Quality of life dimension scores of Nasca and Palpa elderly social programs in 2017

<table>
<thead>
<tr>
<th>Quality of life</th>
<th>Nasca</th>
<th>Palpa</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low (F%)</td>
<td>It’s not bad! (F%)</td>
</tr>
<tr>
<td>Physical function</td>
<td>3.3 (40)</td>
<td>40 (56.7)</td>
</tr>
<tr>
<td>Physical role</td>
<td>6.7 (40)</td>
<td>40 (53.3)</td>
</tr>
<tr>
<td>Physical pain</td>
<td>0 (36.7)</td>
<td>63.3 (55.4)</td>
</tr>
<tr>
<td>General health</td>
<td>3.3 (23.3)</td>
<td>73.3 (10.8)</td>
</tr>
<tr>
<td>Vitality</td>
<td>0 (60)</td>
<td>40 (56.9)</td>
</tr>
<tr>
<td>Social function</td>
<td>0 (26.7)</td>
<td>73.3 (46.2)</td>
</tr>
<tr>
<td>Emotional role</td>
<td>10 (43.3)</td>
<td>46.7 (13.8)</td>
</tr>
<tr>
<td>Mental health</td>
<td>0 (10)</td>
<td>90 (18.5)</td>
</tr>
</tbody>
</table>

Source: Data from the SF-36 Health Questionnaire of Nasca and Palpa Social Gerontological Program (2017)

Considering the most representative percentage of the population with high quality of life, the three dimensions are separated from the study intervention variables for correspondence analysis. This is to evaluate the behavior of variables:

- General health gender age (see Figure 1): through this analysis, it can be seen that the quality of life related to general health between the age of 85 and 94 is low or normal, which has a negative impact on their future health. In addition, people aged 65 to 74 have a high quality of life. With regard to gender, it can be found that this is not a significant variable associated with the general health dimension or the age of the elderly.

Figure 1. Association diagram of the variables general health, sex and age of the Social Gerontological Program of Nasca 2017.
Source: Data from the SF-36 Health Questionnaire of Social Gerontological Program of the province of Nasca (2017).

- Social function-gender-age (see Figure 2): the elderly aged 65–74 tend to establish a high level of quality of life based on social function, which is not affected by physical or emotional health problems and will lead a healthy social life.

Figure 2. Association diagram of the variables age, social function and gender of the Social Gerontological Program of Nasca 2017.
Source: Data from the SF-36 Health Questionnaire of Social Gerontological Program of the province of Nasca (2017).
Figure 2. Association diagram of the variables social function, gender and age of the Social Gerontological Program of Nasca 2017. Source: Data from the SF-36 Health Questionnaire of Social Gerontological Program of the province of Nasca (2017).

- Mental health gender age (see Figure 3): according to mental health, gender variables are associated with high quality of life for people of 65-74 years old.

Figure 3. Association diagram of the variables mental health, gender and age of the Social Gerontological Program of Nasca 2017. Source: Data from the SF-36 Health Questionnaire of Social Gerontological Program of the province of Nasca (2017)

3.2 Palpa Social Gerontological Program

The average age of the study population is 74 years. 77% of the elderly are women and 23% are men. The study found that the elderly who participated in the program showed a high-level quality of life in four dimensions, which were characterized by:

- Resistant to constant illness.
- Your physical or emotional health problems will not interfere with your daily social life.
- Your emotional problems will not reduce your activity time, and your performance will not be lower than expected.
- Their mental health has a positive impact on their lives, and they have emotional control in all cases.

More than 50% of respondents have a regular quality of life based on physical function, physical pain and vitality, so we need to describe it as:
The quality of life of the elderly in the 2017 project on geriatric sociology in the two provinces of ICA, Peru

- Your physical health limits three of the six sports you need to do every day.
- Sometimes pain limits your performance and requires a day off.
- Their fatigue and energy are expressed in the same proportion. They have as many good days as bad.

63.1% of the population has a low quality of life in terms of physical roles, indicating that they show physical difficulties in daily activities, which is lower than expected (see Table 2).

Older people in the Palpa Social Gerontology Program show a higher quality of life in terms of physical health and mental health. Therefore, the comprehensive analysis between these dimensions, age and gender variables are carried out:

General health gender age (see Figure 4): in the analysis, women aged 65-74 were associated with a high level of overall health and quality of life. In other words, women tend to be more difficult to get sick. Between the ages of 75 and 84, it is more closely related to men. The low quality of life of overall health was not significantly correlated with any of the variables in the study.

![Figure 4](image)

**Figure 4.** Association diagram of the variables general health, sex and age of the Social Gerontological Program of Palpa 2017.

Source: Data taken from the SF-36 Health Questionnaire applied in the Social Gerontological Program of the province of Palpa (2017).

- Mental health gender age (see Figure 5): the gender is related to mental health, which depends on the age of the elderly. Therefore, women aged 65 to 74 have better mental health, while men have better physical health, aged 75 to 84.

4. Discussion

The Medina Espejo’s study (2014) found that the elderly had a lower quality of life in terms of mental health, social function, general health and emotional roles. However, a high quality of life depends on physical pain. Comparing the results of this study with previous study, the results show that the quality of life of the elderly in Nasca province and Palpa province (Ica department) is better than that of the elderly in Lima’s Social Gerontological Program. In terms of mental health, social function, general health and emotional roles.

In addition, Cordoba Kale’s (2012) study aimed to determine, analyze and discuss the quality of life of people served by the elderly program of the Chiclayo Regional Police Hospital, and concluded that subjects’ satisfaction with the quality of life was determined by the definition of family relations and social roles. These results confirm the data obtained in this study. The elderly of the Palma and Nasca Social Gerontological Program showed a high level of the quality of life according to the relevant dimensions of social function, emotional role, family and social field.

Finally, in the study of Jiménez Rinza (2012), the elderly in the project studied by the author had vitality, experienced social integration and got emotional well-being. In fact, the vitality and the quality of life obtained from these dimensions are similar to those obtained from the present study of Palpa and Nasca.
5. Conclusion

The elderly of Nasca Social Gerontological Program are characterized by high quality of life. They have the ability to perform self-care activities, simple obstacle walking, tilting, snatching or weight-bearing, etc. Their performance is not lower than expected because they have no pain to limit activities and have the ability to resist diseases. Emotional or physical problems will not interfere with their daily social life, nor will reduce their working hours. They can control their behavior and emotions.

On the other hand, the quality of life of members of the Palpa Social Gerontological Program has reached a normal level. They are resistant to illness, do not let physical or emotional problems interfere with their social life, and do not allow their work to be affected by emotional problems, which will reduce their performance. They know how to control their emotions and behavior, and they can complete 70% of their daily activities without health restrictions. However, physical pain affects 50% of normal work performance, makes people fatigue at the remaining time, and physical health limits the types of activities they engage in.

The quality of life of the elderly is related to the evaluation of the degree of health restriction on physical activities. Personal health assessment is also relevant, including current health status, future health prospects and resistance to disease.

Finally, it must be emphasized that in Palpa province, workshops aimed at improving physical health must be strengthened in order to get the best performance in daily activities, such as self-care, walking, going up and down stairs, moving objects, etc. Therefore, it is necessary to cultivate vitality and pain management skills in the elderly.

Ethical considerations

The manager of the health institution responsible for the social program for the elderly in the province of Ica, Peru, was asked to approve the case. In addition, the SF-36 health questionnaire was implemented for the elderly in coordination with the social workers responsible for the social program for the elderly in each province without inconvenience in the planned institutional activities.

It was explained that participation in the study was a voluntary act, without risk to any participant, and was completely confidential. Researchers would use the data in a coded manner for research. Subsequently, each participant signed an informed consent form.

Conflict of Interest

The author declared no conflict of interest.

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