

***Quality of Life of Elderly With Vascular Illness and the Level of Depression
in 4 Barangays in Malabon, Philippines***

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The European Conference on Aging & Gerontology 2022
Official Conference Proceedings

Abstract

Seniors or elderlies are a growing number all over the world, and they also have sicknesses like diabetes, high blood, and high cholesterol. Having chronic illnesses can affect the mood of the elderly: becoming cranky, lonely, not eating, etc. Therefore, there is a need to study the relationship between the quality of life of the elderly and their level of depression. Depression for the elderly is known as vascular depression since it is tied to vascular illnesses like high blood, high cholesterol diabetes. The study wanted to determine the relationship between quality of life and depression for those having vascular illnesses. This was done in Malabon, Metro Manila, Philippines, for two hundred eighty-seven (287) seniors ages 60 and above, in four (4) barangays, who were getting their free medicines for their vascular diseases for free at the barangay health centers, coming from the Department of Health. Two instruments were used; quality of life (CASP-19) based on needs satisfaction and a patient health questionnaire (PHQ-9), which determines depression severity. The finding showed then there was a very significant negative correlation between the quality of life to depression using Spearman rank correlation. It means that when the quality of life is high, the level of depression is low or vice versa. The seniors were happy with their families and friends, can overlook their diseases, and did not suffer from depression.

Keywords: CASP-19, Depression, Quality of Life, PHQ-9, Elderly

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Introduction

The World Health Organization defined quality of life (QoL) as individuals' perceptions of their position in life in the context of their culture and value systems, and concerning their goals, expectations, standards, and concerns ("Meaning Quality of Life," n.d.). Furthermore, the quality of life refers to the subjective life satisfaction and well-being of the individual. It is important to learn about QoL because interventions and programs can be provided to clients or patients who need to improve their situations, and prevent serious consequences ("Why is quality of life important," 2018).

In the Philippines, there is an increasing population of senior citizens. In 2000, there were 4.6 million: 60 years old and above, 6% of the total population; and in two decades: 9.4 million, 8.6% of the total population ("Ageing population in the Philippines." 2019). In 2021, the current life expectancy is 71.4 years old, an increase of 0.18% from 2020 ("Philippine Life Expectancy 1950-2022", n.d.); however, this aging population of the country necessitates the government to address various elderly-related issues like rehabilitation, depression, daily activities, and health care according to the Executive Director Juan Perez III of the Commission on Population (Crisostomo, 2015).

Depression remains still underdiagnosed and undetected due to a lack of mental health workers in the Philippines. The ratio per 100,000 of the general population is 0.5 psychiatrists, 0.07 psychologists and 0.49 mental health workers. There are 37 psychologists out of 27 hospitals, and 160 certified geriatricians mostly residing in Luzon (Pellejo, et al., (2020).

Depression is an emotional or mood disorder that happens when there is a prolonged feeling of loss, and unhappiness; sleep deprivation; loss of appetite (Huxley, 2021) due to psychosocial factors like bereavement, caregiver burden, and lack of social support (Halverson et al., 2020); or illness like cerebrovascular and cardiovascular diseases (Alexopoulos, 2019).

Depression is seen more occurring in the elderly, and this is somehow ignored in society because of the thinking that depression is part and parcel of the experience of getting old, similar to other illnesses like diabetes, high blood pressure, high cholesterol, etc. (Avasthi & Grover, 2018; Diniz & Teixeira, 2019).

Contrarily, according to "Depression is Not Part of Growing Older" (2021), depression is not a normal part of aging, but it is a debilitating illness that is treatable. The consequences of untreated or partially treated depression has higher mortality from both suicides (Van Orden & Conwell, 2012), and medical illness (Aziz & Steffens, 2013).

Depression can hamper a good quality of life. Based on the study in different countries where there are increasing senior population, in India, Portugal, Turkey, Ethiopia, Spain, and Europe, depression is linked negatively to the quality of life. Avasthi and Grover (2018) in India, reveal that depression in the elderly results from difficulties with activities of daily living, premature death, cognitive impairments, and poor quality of life. From Portugal, Ribeiro et al. (2020) claim that screening and treating depression in the elderly would result in a better quality of life. On the same contentions, Onat et al. (2014) state in Turkey, that there is a negative relationship between depression and quality of life, the increased risk of depression can result in a negative quality of life. Similarly, In Ethiopia, Shumye et al. (2019) say that the scores of

those who are suffering from depression have also a low quality of life scores. Likewise, based on Portellano-Ortiz et al. (2018) depression is linked to the quality of life for people over 65 years in Spain and Europe. The low quality of life score is associated with high rates of depression, financial scarcity, low physical health, low educational attainment, and inability to do activities of daily living (ADL).

In the Philippines, life satisfaction or quality of life for older Filipino adults based on the Longitudinal Study on Aging and Health in the Philippines (LSAHP) show that majority of the population are satisfied with their lives. Life satisfaction is a subjective measure of a person's overall evaluation of life-based on subjective and objective conditions being experienced (Ogena, 2019). However, depression is experienced by some older Filipino people, and women are showing more depressive symptoms than men (Natividad, 2019). As of this writing, there is no conducted locally associating quality of life with depression in the elderly with vascular illness in a community setting; thus, this study is a proponent in these areas.

The foundation of this study emanated from the theory of hierarchical needs or motivation by Abraham Maslow, and the unified model of depression by Aaron Beck and Keith Bredemeier.

Hierarchical needs or motivation theory proposes that human beings are governed by needs that motivate them to act and satisfy these needs. These needs are considered hierarchical because the needs are starting from lowest to highest: physiological, safety, love and belonging, esteem, self-actualization, and self-transcendence (Maslow, 2015). Older adults would strive for self-actualization having achieved the other lower needs. Self-transcendence, the highest motivation, permits the individual to relinquish personal comfort for the benefit of others (Koltko-Rivera, 2006).

The unified model of depression: integrating clinical, cognitive, biological, and evolutionary perspectives by Aaron Beck and Keith Bredemeier in 2016, talks about the numerous contributing factors of depression. It consists of clinical, cognitive, and biological approaches that clarify the symptoms of depression and its natural course from its predisposition. Stressful life events heightened reactivity to stress, and deep-seated cognitive biases can lead individuals to espouse negative beliefs about the self, the world, and the future – a combination known as the cognitive negative triad. When activated by stressful life events or affected by severe pain from chronic illness, these beliefs can trigger consistent emotions such as sadness, anhedonia, and guilt; and behavioral and physiological responses such as withdrawal, inactivity, and loss of appetite. External factors such as support from friends and family; guidance from a psychotherapist, and biological treatment through medicines can reverse the cycle of depression.

The study was focused on determining the relationship between the quality of life and levels of depression of Filipino senior citizens of barangay Longos, Potrero, Catmon, and Tonsuya in Malabon City who were availing of free medicines for ailments like diabetes, hypertension, and high cholesterol; and medical check-ups given by the Department of Health (DOH) in their barangay health centers. The respondents of the study were physically abled and mentally alert and gave their consent, to take the survey questionnaires: Control, Autonomy, Self-realization, and Pleasure-19 (CASP-19) to measure the quality of life, and Patient Health Questionnaire-9 (PHQ-9) to measure the depression severity.

The quality of life components has nine (9) different connected domains (van Leeuwen et al., 2019). These are health perception, feeling healthy and not limited by physical condition; autonomy, being able to manage oneself, retaining dignity, and not feeling like a burden; role and activity, spending time doing activities that bring a sense of value, joy, and involvement; relationship, having close relationships which make one feel supported and enable to mean something for other; attitudes and adaptations, looking on the bright side of life; emotional comfort, feeling at peace; spirituality, feeling attached to faith, and self-development from beliefs, rituals, and inner reflections; home and neighborhood, feeling secure at home and living in a pleasant and accessible neighborhood; and financial security, not feeling restricted by financial situation.

One of the most problematic areas of quality of life for Filipino elderlies and non-Filipinos is the lack of money (Netuveli et al., 2006; RongSa et al., 2020; Rathnayake & Siop, 2015; Kumar et al., 2014; Cruz, 2019; Badana & Andel, 2018; de Guzman et al., 2015; De Leon, 2014). Health is the second important consideration for elderlies (Lu et al., 2020; Lin et al., 2014; Netuveli et al., 2006; Rong et al., 2020). Meanwhile, money and education help keep oneself healthy (Chan, 2018; Badana & Andel, 2018; De Leon (2014), Bustillo, 2016; Onunkwor et al., 2016).

Elderlies adapt and accept their degenerative conditions through positive attitudes, resting, physical activities like gardening and exercise, community services, skills training for livelihood, getting access to free programs and services of the government, part-time work, and social interaction with their children and other family members. All of these are factors that can increase the quality of life (Lowsky et al., 2014; Sivertsen et al., 2015; Badana & Andel, 2018).

Social interactions and relationships with family and friends give happiness and satisfaction to Filipino seniors (Beliran & Legaspi, 2014; Valero et al., 2021; de Guzman et al., 2015; Netuveli et al., 2006; De Leon, 2014; Badana & Andel, 2018; Onunkwor et al., 2016). Depression also happens due to a lack of financial resources, health problems, and loneliness (Kumar et al., 2014; Halverson et al., 2020; Sare et al., 2021; Rathnayake & Siop, 2015; Carandang et al., 2019).

Unless its genetics and exacerbated by life misfortunes, depression can be mitigated by good coping strategies and high quality of life (Boone et al., 2010; Carandang et al., 2019; Sivertsen et al., 2015; Valero et al., 2021; Netuveli et al., 2006; Beliran & Legaspi, 2014; Badana & Andel, 2018; De Leon, 2014; Chua & de Guzman, 2014; Bustillo, 2016; de Guzman et al., 2015; Onunkwor et al., 2016; Chan, 2018; Gupta et al., 2014; Netuveli et al., 2012; Rashid & Monan, 2013). It is given that elderlies are going to be feeble as they grow older, however, there is heterogeneity in them (Vaillant, 2015; Fontana et al., 2008; Garcia & Miralles, 2016; Lowsky et al., 2014). Physical and mental exercises, good nutrition, vitamins and minerals, harmonious relationship with others, and available assistance to seniors, can improve quality of life, and lessen depression.

Methods

The researcher used descriptive and correlation research methods. The descriptive research method gives a relatively complete picture of what is occurring at a given time. Descriptive research gives static pictures. Frequency, percentage, and median are examples to describe the respondents.

The median was used as a measure of central tendency for the responses on each item measuring the two variables, the quality of life and depression. The median is good to use if the data is ordinal, like in the data set, the median is computed by taking the mean of the two middlemost numbers (Stapel, 2021). The median is good to use if the data is ordinal like in the Likert scale similar to the questionnaires, CASP-19 and PHQ-9. The median has more power than the mean when the data set contains outliers or very small or large values in the data set (Rumsey, 2021). Normality tests using the Shapiro-Wilks revealed that the research data do not follow the normal distribution. The mean is not appropriate in such situations where the data are skewed. Median, in this case, was the appropriate statistical tool that represented the middle or center of distribution of the whole set of data (Boslaugh, 2021; Brase & Brase, 2015).

Spearman rank-order correlation was utilized the identification the relationship between quality of life and depression. The Spearman rho is a non-parametric measure of the strength and direction of association that exists between two variables measured on at least an interval scale (Hanneman, Kposowa & Riddle, 2013).

There were 287 elderlies from the four barangays of Malabon City namely Longos, Catmon, Tonsuya, and Potrero. Logistics and data facilitation were the primary considerations in choosing these barangays. Through purposive or judgment sampling, the respondents were selected using the qualities corresponding to the nature and need of the study. According to Lund (2012), and Palinkas et al., (2016), purposive or judgment sampling uses the unique qualities of the respondents as the bases of selection. In the study, the respondents were elderlies or seniors who were claiming for free medical check-ups, and medicines provided by the barangay health centers, and the Department of Health. Through the assistance of the following medical frontliners or nurses namely: Katrina Vianca C. Busa of Barangay Longos; Florica B. Dela Cruz of Barangay Catmon; Ferdinand Ramirez of Barangay Tonsuya; and Reynalyn T. Villarosa of Barangay Portrero, the respondents were informed about the conduct of the study. The researcher also considered the respondents' good mental and physical conditions, and consents. Those who were not willing, and were not able to come in the locale to participate were excluded from the population of sample.

The instruments utilized for this study were Control, Autonomy, Self-realization and Pleasure-19 (CASP-19), and Patient Health Questionnaire-9 (PHQ-9). These survey questionnaires were translated to Filipino by Mr. Ligaya Cotanda, a senior public high school Filipino teacher and a college instructor.

CASP-19 was created by Martin Hyde, Richard D. Wiggins, Paul F. Higgs, and David Blane of the Department of Social Science and Medicine, Imperial College of Science, Technology and Medicine, London, United Kingdom (Hyde et al., 2003). CASP-19 was the satisfaction quality of life questionnaire based on Maslow hierarchy of needs on health and well-being (Sim et al., 2011).

Patient Health Questionnaire-9 (PHQ-9) was a self-administered, diagnostic screening instrument used by health care professionals for assessing and monitoring depression severity. This was made by Dr. Robert Spitzer and Janet Williams from Columbia University, and Dr. Kurt Kroenke from Indiana University with Pfizer from 1999 to 2009 ("Pfizer To Offer Free Public Access," 2010).

Discussion

Table 1 presents the quality of life of the respondents categorized on age, sex, and civil status. The majority of the respondents have a positive quality of life.

Table 2 presents the percentage levels of depression of respondents. Two hundred three (203) or 70.73% of the respondents show none and minimal depression, fifty-seven (57) or 19.86%, mild; twenty-one (21) or 7.32%, moderate; five (5) or 1.74%, moderately severe; and one (1) or 0.35%, severe.

Table 3 presents several significant negative correlations between the quality of life and levels of depression of senior citizen respondents. Based on the results, the Spearman rho has a level of significance at $p < 0.05$ and very significant at $p < 0.01$ which means that control, autonomy, pleasure, and self-realization, as qualities of life, have a negative correlation to hopelessness, sleep, fatigue, guilt, thinking, agitation, and suicidal ideation. This negative correlation according to McLeod (2020) is the relationship between two variables that when one variable increases, the other variable decreases, and vice versa. These results connote that the respondents have high scores in their quality of life, and their depression is low.

Based on the findings of the present study, a wellness program, Table 4, is made to further strengthen senior citizens in terms of improving their quality of life.

The limitation of the study lies in that it is from a small sample size, 287, and focused on 4 barangays of Malabon. Another extension can be those residing in the province, elderlies suffering from cardiovascular illnesses, to find out if there is a difference between those in the city and the province.

Conclusion

1. The respondents had a high quality of life. The control, autonomy, self-realization, and pleasure domains were met by the respondents in their lives.
2. The levels of depression of the respondents were none or minimal. Only a few were showing mild, moderate, moderately severe, and severe depression.
3. The relationship between the quality of life and the levels of depression had an inverse association which meant that the elderlies with a higher level of quality of life had no or minimal level of depression.

Recommendations

1. To maintain a high quality of life, elderlies should continue with what they want to do; they should make themselves busy; they should take regularly their maintenance medicines as prescribed by their attending physicians; they should live with their family members to address the other needs, and they should stay positive.
2. To ward off depression, the elderly should focus more on their families; they should also attend to their hobbies; desires; and social activities that will prolong their enthusiasm to go on with their lives.

3. To further preserve the quality of life and lessen the levels of depression, a wellness program was proposed to address the needs of the elderly.
4. Future researchers could use this study as a reference for their future studies.
5. A similar study can be conducted to verify the results of the present study.
6. Another study to identify the relationship between the quality of life and healthy aging of different age groups may be conducted.

Appendices

Table 1
*Median of Quality of Life of Respondents
based on Age, Sex and Civil Status*

Category	No. of Respondent	Quality of Life (median)	Verbal Interpretation
Ages 60-69	159(55.40%)	45	High level
Ages 70-79	106(36.93%)	44	High level
Ages 80 and above	22(7.67%)	41	High level
All	287(100%)	44	High level
Male	103(35.89%)	44	High level
Female	184(64.11%)	45	High level
Married	144(50.17%)	45	High level
Single	143(49.83%)	44	High level

Table 2
Percentage of Levels of Depression of Respondents

Levels of Depression	No of Respondents	Percentage
How many are none or minimal?	203	70.73%
How many are mild?	57	19.86%
How many are moderate?	21	7.32%
How many are moderately severe?	5	1.74%
How many are severe?	1	0.35%
TOTAL	287	100.00%

Table 3
*Correlation Matrix on Quality of Life and Levels of Depression
of Senior Citizen Respondents*

	Control	Autonomy	Pleasure	Self-realization
Loss of Interest	-.102	-.154**	-.122*	.047
Hopelessness	-.162**	-.236**	-.174**	-.232**
Sleep	-.158**	-.243**	-.091	-.076
Fatigue	-.207**	-.322**	-.147**	-.240**
Appetite	-.052	-.128*	-.040	-.054
Guilt	-.132**	-.272**	-.175**	-.144**
(Worthlessness)				
Thinking	-.138**	-.181**	-.105*	-.144**
Agitation	-.165**	-.220**	-.135*	-.175**
Suicidal	-.133**	-.160**	-.113*	-.114*
Ideation				
Overall	-.208**	-.336**	-.103	-.165**

Legend;:

** Significant at $p < .01$; * Significant at $p < .05$

Table 4
Proposed Wellness Program

Finding	Objective	Activity	Learning Outcome
Quality of life indicator- Control			
There is control found for the elderlies in terms of planning for their future, their age is not affecting their work and life happenings are within their control	To strengthen planning for the future.	Identify by writing or listening to elderlies with regards to the most important goals for the future and focus on them.	Ask the elderlies if their plans for the future are reachable and feasible Ask the family, friends of the elderlies on how the elderlies are doing with their plans.
There is a need to need to remember where they left off things	There is a need to strengthen memory	Have a permanent place for wallet, keys, eyeglasses, and other valuable objects e.g. A container on the table like plastic or paper box for keys, eyeglasses, and wallet Give mental exercises like playing chess; pompano chess club-halaan alley in Longos, Malabon; playing Sudoku online; card games; or booklet	Ask the family, friends, neighbors, or the elderly themselves if there is improvement in remembering where things are placed Ask the elderlies or their caregivers if these mental exercises helped them sharpen their memory.

Finding	Objective	Activity	Learning Outcome
		<p>The following exercises can strengthen both mental and physical aspects: Walking at Pinagsabugan Linear Park, C4 Island Park, Malabon People’s Park; and</p> <p>Aerobics and Zumba at C4 Island Park, Malabon People’s Park, Tanong basketball court.</p>	<p>Ask the elderly or their relatives if their memory and physical strength are improving.</p> <p>To ask the elderlies, if there is improvement in their memory</p>
		<p>To teach the elderlies mindfulness, ie. Keeping focus on where they had kept the important things</p>	<p>Ask the elderly, “Is mindfulness easy to do?”</p>
		<p>Provide elderlies with reading materials that have large fonts. This can be provided by barangay libraries.</p>	<p>Ask the seniors if reading is fun and worthwhile.</p> <p>Ask the LGU to provide venues for mental exercises like community libraries</p>
Quality of life			
indicator: Autonomy			
<p>There is autonomy of the elderlies in doing what is pleasing for them and family responsibilities are not a hindrance in being autonomous</p>	<p>To continue with their having freedom and this is with planning for doing things that they desire</p>	<p>Coordinate with elderlies on things they want to do for themselves and their loved ones</p>	<p>Ask the seniors whether they are doing well in their autonomy</p>
<p>There is a need to help the elderlies as far as health matter is concerned.</p>	<p>To teach the elderlies to take care of their vascular diseases thru their medicines, their diet and lifestyles.</p>	<p>Thru their families and friends, the elderlies must be reminded to be aware of their maintenance meds, to be conscious of the food that they eat and the physical exercises that they do</p>	<p>Ask the family or the elderlies, how their health</p>
<p>Autonomy in financial matters is something to be reached</p>	<p>To be able to select important or urgent concern as far as money spending is concerned</p>	<p>Literacy on hierarchy of things to spend</p>	<p>Ask whether elderlies are happy in their selective buying</p> <p>Ask the elderlies how the financial concerns are helped with their adaptations and choosing</p>

Finding	Objective	Activity	Learning Outcome
<p>Quality of life indicator: Pleasure</p> <p>On pleasure, the elderlies are happy with their life because they see meanings in their life and they enjoy doing their usual things</p>	<p>To support the elderlies in doing meaningful and doing things they are most capable of.</p>	<p>Listening to elderlies on what are meaningful to them; their capabilities and abilities</p>	<p>To check on the elderlies if they continue to experience pleasure in their activities</p>
<p>Quality of life indicator: Self-realization</p> <p>The elderlies have realized their dreams thru their children, they see their toils resulted in producing abled citizens. They feel full of energy and would continue to do for their grandchildren. They also feel doing things for themselves; studying perhaps, or having a personal business to add zest to their lives.</p>	<p>To help elderlies define their other desires for themselves or their families.</p>	<p>To listen to the elderlies talk about what are still their goals to achieve.</p>	<p>To ask the elderlies and /or their families what are the activities being done by the elderlies that are new or something they would like to do</p>
<p>Depression levels</p> <p>There is no depression felt by the elderlies</p>	<p>To keep this level of depression as much as possible</p>	<p>Giving PHQ-9 assessment test again</p> <p>Listening to the problems of the elderlies, watching their demeanors and interacting with the elderlies on how they overcome feelings of depression</p> <p>To share with the elderlies how others cope with life vicissitudes</p>	<p>To determine from the seniors if they have any signs of depression</p> <p>To ask the elderlies how they or others are coping with life that ward off depression</p>

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