The Well-Being of Older Adults in the Philippines: Application of the Years of Good Life

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Abstract

The population structure of the Philippines is young, but it is expected to age in the coming years. It is important to understand the well-being of older people to prepare policies that can ensure an adequate quality of life. Understanding the heterogeneity of a population is needed to guarantee that individual development is equitable. Years of Good Life (YoGL) is a novel indicator of well-being comprised of measures of good physical and cognitive health, being out of poverty, and being satisfied with life. Various measures were tested to determine which indicators best fit the stated dimensions of YoGL. Using the 2018 Longitudinal Study on Ageing and Health in the Philippines, observations show men aged 60 have a life expectancy of about 17 years, and YoGL was 14 years. Women of the same age have a life expectancy of 19 years, while the YOGL is 16 years. Among men and women aged 70 years, the YoGL was 7.9 and 8.6 years, respectively. Analyses show that for both ages and sexes, physical health was the dimension that decreased the number of good years. This study demonstrates the applicability of the YoGL methodology in investigating the well-being of subpopulations.

Keywords

Older adults; Philippines; quality of life; well-being

Introduction

Well-being has been explored in the literature in recent decades to aid in policymaking by identifying the factors that can improve the quality of life of populations and expand on the goal of achieving sustainable development. Various indices have been created to measure well-being, including the Better Life Index from the Organization for Economic Cooperation and Development (OECD), the Global Well-being Index (GWI), the Human Development Index (HDI), and the Sustainable Society Index (SSI), among others (McLean, 2014; Strezov et al., 2017). The constant generation of new indices demonstrates that there are various approaches to understanding quality of life that can be contextualized to the situations of respective countries (McLean, 2014). Instead of these variations in approaches, the indicators that comprise the abovementioned indices are also diverse.

Gross domestic product (GDP) is often used in well-being indices such as the Better Life Index of the OECD. The limitation of using such macro-level indicators is that they represent economic growth without reference to commodities and technologies across places and over time (Dasgupta, 2001). Factors affecting human development indices then become incomparable. Economic factors are ignored in other indicators like the Happy Planet Index. Life satisfaction and mortality information was integrated with the ecological footprints for this index. The issue with utilizing such an approach is that it does not reflect the current condition of society but shows the probable impacts on future well-being (Buathong et al., 2021).

Whether economic development is utilized, a fundamental issue with existing indices is that they are highly aggregated and focus on macro-level perspectives instead of considering the individual and household levels (Mascarenhas et al., 2010; Veneri & Edzes, 2017). A novel approach to the study of well-being is necessary, such as the one developed by the International Institute for Applied Systems Analysis: the Years of Good Life (YoGL) (Lutz et al., 2018; Lutz et al., 2021). The YoGL is an indicator that addresses the limitations of previous well-being indicators in that it is based on individual-level data and can be aggregated at subpopulation levels. It is comparable over time, and the interpretation can be direct.

The quality of life in YoGL considers simply surviving to be insufficient. Rather YoGL considers four dimensions: having good physical health, having sound cognitive health, being satisfied with life, and being out of poverty. These dimensions are integrated into life expectancy using a life table approach to represent the years a person can expect to live a good life. The current indicator expands on existing work on healthy life expectancy (Salomon et al., 2012).

The Philippines arguably remains a young population. In 2020, almost 30% of the total population was 14 years or younger, and about 8% were at least 60 years (Wittgenstein Centre for Demography and Global Human Capital, 2018). However, the population is expected to age over the next decade. Still, in 2020, the Philippines was a lower middle-income country, and almost 17% of the population was below the national poverty threshold (World Bank, 2021). The demographic and socioeconomic status in the country has been noted to be related, such that family size, household economic situation, and poverty were found to have an association (Bayudan-Dacuycuy & Lim, 2013).

Although the number of studies done on the well-being of older people has been limited, it has also been observed that poverty is related to the quality of life (Badana & Andel, 2018; Tariga & Cutamora, 2016). A qualitative study on having a good outlook on life has been done at the community level and found that social engagement and spirituality affected the point of view of older people (Esteban, 2015). A limitation of this type of study is that it is incomparable because the questions were not standard. Standardized questionnaire studies, on the other hand, have limitations. Research was done using the Satisfaction with Life Scale (SWLS) (Tariga & Cutamora, 2016) and another using the Older People's Quality of Life Scale (OP-QoL) (Soriano et al., 2016). An issue with the former study is that they focused solely on life satisfaction. In contrast, the latter study involved subjective responses, leading to difficulties when prospectively comparing results with other communities (Lutz et al., 2018).

The present study aimed to explore well-being using a multidimensional index: the YoGL. A better understanding of what contributes to better well-being among Filipinos was presented by focusing on individual-level information. The analyses were done for individuals aged 60 and 70 to show how the different dimensions would have contributed to a good life depending on age development. Also, the results were done using male and female sub-samples. This study is significant because it is the first to use YoGL analysis solely on the older population. It is essential to consider the present situation to understand what may be required for individuals to have good lives. This research can help policymakers identify gaps in the social sector and prepare the country for the inevitability of an aging population structure.

Methods

Data

This study used the 2018 Longitudinal Study on Ageing and Health in the Philippines (LSAHP). The LSAHP is a nationally representative survey in which information about social, health, and other characteristics of people aged at least 60 years is collected, along with information about children and caregivers (Cruz et al., 2019). In the first wave of this survey, where 5,985 respondents were covered, the said figure comprised 94% of the initial sample. A multistage sampling design was used, where provinces and villages were the primary and secondary sampling units, respectively. For the present analysis, restrictions to the total sample were introduced, excluding those with a higher degree of cognitive impairment and responses involving proxies. The said criteria were set because the variables included needed sound responses and applied subjective answers from the older respondents themselves. The resulting analytic sample consisted of 5,209 individuals.

The present study also utilized the latest revision of the World Population Prospects (United Nations Population Division, 2022). This revision is the current edition of the population estimates and projections by the United Nations based on demographic trends from respective countries' censuses, vital registration systems, and representative samples. The life table estimates relevant to the current study included the number of people at certain ages, the number of person-years lived, and the life expectancy at specific ages.

Measures

There are four indicators for Years of Good Life: good physical health, sound cognitive health, satisfaction with life, and being in poverty (Lutz et al., 2018). Although the concepts are well-defined, various measures can be applied. Therefore, testing which specific measure is most fit was suitable (Buathong et al., 2021). Further details on YoGL are found in Lutz et al. (2021). The following subsections describe the measures tested and their respective cut-offs. The multifarious options were tested for distribution and subsequently tested using sensitivity analyses.

Physical health

Physical health is determined by the experience of physical limitations. Performing physical tests is optimal for gathering data about limitations (Spitzer & Weber, 2019), but these are time-consuming. In this regard, self-reported measures have been found to be appropriate (Buathong et al., 2021). The first measure tested was from the Nagi function measures (Nagi, 1965). It involved ten questions on physical activities and ability, including walking 200–300 meters, raising hands above the head, and bending the knees, among others. A dichotomous variable was created where having good physical health is defined as the lack of any limitations (Dong et al., 2014).

Another means of testing physical limitations is through the activities of daily living. This assessment consists of seven (7) items assessing physical capacity, such as using the toilet and eating alone. This event is a prevalent measure in many surveys. The threshold to define having a functional limitation is experiencing difficulty performing at least one of the enumerated activities (Abalos et al., 2018; Vicerra, 2022b). The final measure test is the Global Activity Limitation Instrument (GALI), which involves only one question on whether the respondent felt limited to performing activities in the previous six months due to a health problem (Jagger et al., 2010). Whether the response was classified as having a severe limitation or otherwise, the response was categorized as having a negative aspect of physical health.

Cognitive health

Akin to the dimension of physical health, cognitive health is optimally measured through tests. In the LSAHP, some questions tested the specific mental abilities of the respondents regarding numeracy, memory, and literacy. The selected questions for the present study that were tested as cognitive health measures were counting backward from 20 to 1, remembering at least half of the enumerated ten words by the surveyor, and performing five successive subtractions of the value of seven (7) from the total value of 100. This latter test is called the "Serial 7s" and is a standard method of gauging cognitive performance (Vicerra & Pothisiri, 2020).

Another measure was tested for cognitive health, using the standard Short Portable Mental Status Questionnaire (SPMSQ). It involved asking ten questions about orientation in time and place and supplying selected personal information. The SPMSQ is a cognitive screening tool in which at least three (3) errors indicate mild cognitive impairment (Batljan et al., 2009). Such a cut-off was set for the present study, where having the said number of errors was defined as having poor cognitive functioning.

Life satisfaction

This indicator pertains to subjective well-being (Diener et al., 2017). In the literature, happiness and life satisfaction measure subjective well-being, representing different matters. Happiness refers to the current state of being, while life satisfaction requires introspection of one's life (Diener et al., 2017). The survey employed in the present study has a single question about being satisfied with life. Three options were offered for the response: very satisfied, somewhat satisfied, and not satisfied. The operationalization for the present study was tested in two ways: 1) the cut-off only included responding with "very satisfied"; and 2) combining "very satisfied" and "somewhat satisfied."

Poverty

For this indicator, relative poverty was the primary consideration as opposed to absolute poverty. The latter is defined in monetary terms and subsequently compared to whether one is above or below the poverty line. Still, an issue has been raised, as reliable data from developing economies can be challenging to obtain (Jolliffe & Prydz, 2016). The measures tested then were based on whether the respondent had experienced hunger recently or had difficulty meeting expenses. Another measure was being a recipient of welfare provisions under the "4Ps" (known in the local language as the *Pantawid Pamilyang Pilipino Program* [Filipino Family Provisions Program]) of the national government. This welfare provision is intended for the neediest households in the population. Finally, the wealth index was utilized, whereby the lowest quintile was used to measure poverty. The wealth index is a typical indicator that combines aspects like materials used for the house, facilities present, such as a toilet, and ownership of large items like a vehicle (DHS Program, 2018).

Analysis of the Years of Good Life

As mentioned above, each of the four indicators was to be operationalized dichotomously, with specific thresholds set. From those dichotomies, proportions were assigned to the number of person-years lived, which were classified by age and gender. This approach is similar to the Sullivan method in determining morbidity prevalence (Sullivan, 1971). This type of analysis involves life table functions, and what was used here was the UN World Population Prospect (WPP), updated in 2022 (United Nations Population Division, 2022). Single-age life table functions were utilized here, particularly for ages 60 and 70. The generated outcome represents the individuals who meet all the requisites, i.e., the ones above the threshold for all the indicators (Lutz et al., 2021). The resulting proportions for the respective indicators would then represent the years an older person can expect to live in good physical health, sound cognitive health, a good level of life satisfaction, and a life free of poverty.

Results

The descriptive results for the options for the indicators are in Table 1. Physical limitation was observed to be higher for those at age 70 than at age 60. Based on the Nagi functional measure and the GALI, women also had a higher prevalence of physical limitations. ADL limitation shows quite a different result, such that 60-year-old men had a higher prevalence at almost 10%, while it was about 7% for women of the same age.

Table 1: Distribution of Years of Good Life Dimensions of Adults Aged 60 and 70 by Sex (in percentage)

	Age 60			Age 70		
	Total	**Male**	**Female**	**Total**	**Male**	**Female**
Physical health						
Nagi (> 0 limitations)	39.78	37.8	41.35	61.74	50.93	67.49
ADL (> 0 difficulties)	8.06	9.76	6.73	12.22	10.19	13.3
GALI	47.31	52.44	43.27	54.34	55.56	53.69
Cognitive health						
Counting backward (From 20 to 1)	93.01	92.68	93.27	88.42	89.81	87.68
Remembering 10 words (> 4 words recalled)	27.42	28.05	26.92	14.47	19.44	19.78
Serial 7's (All five correct answers)	24.19	31.71	18.27	19.61	16.67	13.3
SPSMQ (> 2 errors)	10.22	13.41	7.69	18.01	14.81	19.7
Life satisfaction						
Very satisfied	48.39	41.46	53.85	47.59	47.22	47.78
Very and somewhat satisfied	92.47	92.68	92.31	96.46	95.37	97.04
Poverty						
Experienced hunger	14.52	10.98	17.31	12.54	12.96	12.32
Welfare recipient	16.13	19.51	13.46	8.68	8.33	8.87
Difficulty in meeting expenses	16.67	10.98	21.15	12.22	9.26	13.79
Lowest wealth quintile	14.52	19.51	10.58	20.26	20.37	20.20
Total (n)	186	82	104	311	108	203

Note: 2018 Longitudinal Study on Aging and Health in the Philippines; ADL: activities of daily living; GALI: Global Activity Limitation Indicator; SPSMQ: Short Portable Mental Status Questionnaire)

For cognitive functions, most of the respondents were able to count backward, even at a more advanced age. At 60 years old, more than a quarter were able to remember at least half of the words recited to them, while less than 20% were able to do so at age 70. The serial 7s test was more varied; almost 32% of men completed the task at age 60. This performance dropped dramatically among those over 70, to around 17%. The difference between 60- and 70-year-old women were less stark, where those who completed the serial sevens were at 18% and 13%, respectively. Based on the standard functional test, the SPSMQ, more people at age 70 may have cognitive impairment compared to those at age 60.

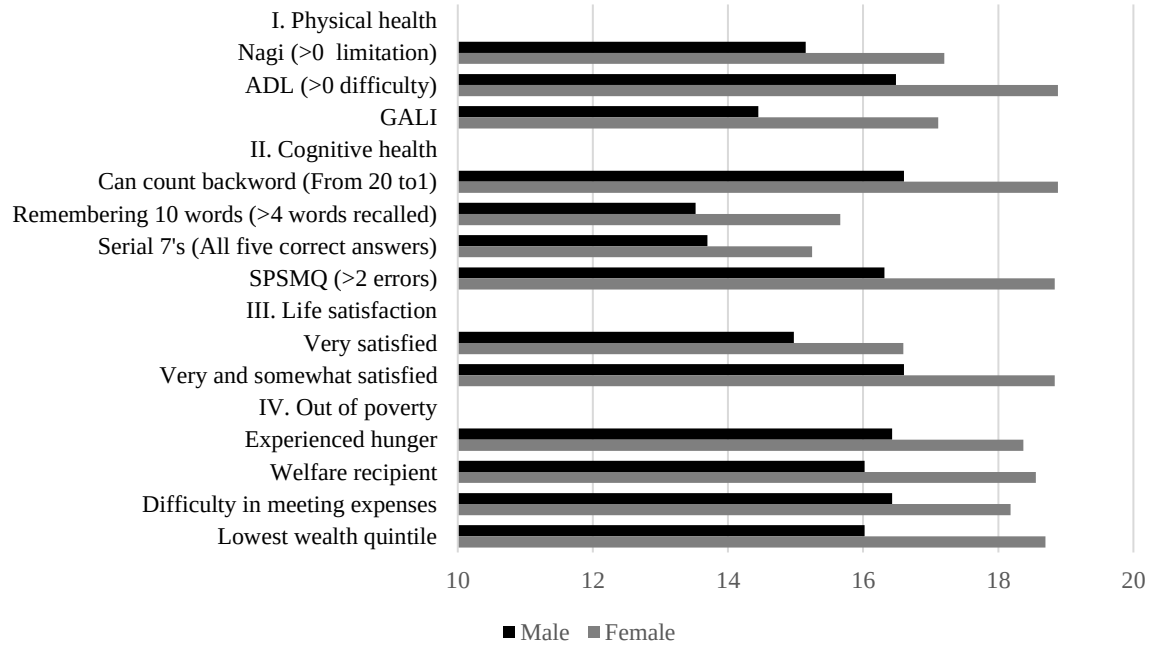
When only those who were "very satisfied" were considered, the cut-offs for life satisfaction were found to be significantly different than when those who were "somewhat satisfied" were included. When the category "somewhat satisfied" was included, the proportion was consistently above 90%. In the case of only those with the response of "very satisfied" who were counted, the distribution was 54% among women aged 60 years.

The poverty measures showed varied results. The lowest wealth quintile had the highest poverty rate among the measures, and more households were in this category among 70-year-old individuals than 60-year-old ones. This pattern of poverty, where those at an older age

were more prevalent, was not observed for the other measures. There were fewer welfare recipients at 70 years of age (16%) than 60 (8.7%). The distribution of those who went hungry and those who struggled to meet their expenses were more similar, particularly among the younger age group.

Sensitivity analysis was performed by applying each measure and generating their respective YoGL values (Figure 1). This evaluation determined which measure corresponded best to the theoretical considerations. The Nagi functional measure was selected for physical health because it was similar to the GALI measure in distribution. Still, the Nagi functional measure had higher variation than GALI. For cognitive health, the results when using individual cognitive functions were highly varied between themselves. The SPSMQ test result was chosen for this reason and because it covered more aspects of cognition rather than focusing on a single numeracy or memory task. The selection process for both health dimensions was similar to other studies concerning YoGL (Buathong et al., 2021; Lutz et al., 2021).

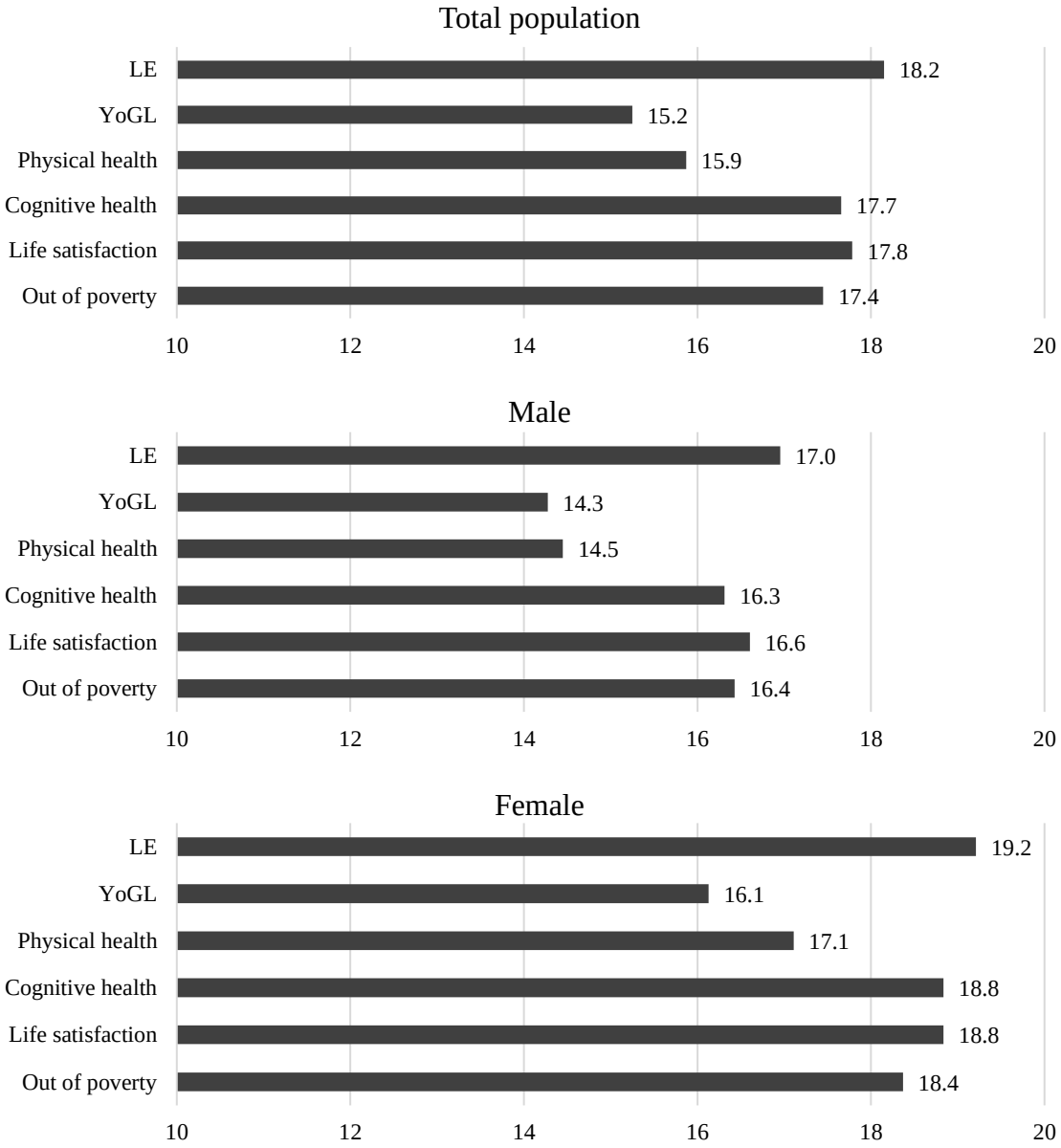
Figure 1: Sensitivity Analysis of Individual Years of Good Life Dimensions of People Aged 60 Years



Note: 2018 Longitudinal Study on Aging and Health in the Philippines; ADL: activities of daily living; GALI: Global Activity Limitation Indicator; SPSMQ: Short Portable Mental Status Questionnaire

For life satisfaction, the combined distribution of "very satisfied" and "somewhat satisfied" was selected because of its similar operationalization in the application of YoGL in other societies (Buathong et al., 2021; Lutz et al., 2021). For the poverty indicator, the measure referring to the experience of hunger was selected. It is the only individual-level measure among the other options, and it was asked based on the older respondent's own experience. This selection was similar to the application of YoGL in Thailand (Buathong et al., 2021). The wealth index and being recipients of the 4P's welfare provision program can be considered household-level measures in that the former is an index of the total assets of all household members, and the latter is determined by the level of need of the total household and not the individual members of the said unit.

Figure 2: YoGL and Individual Dimensions at Age 60 by Sex

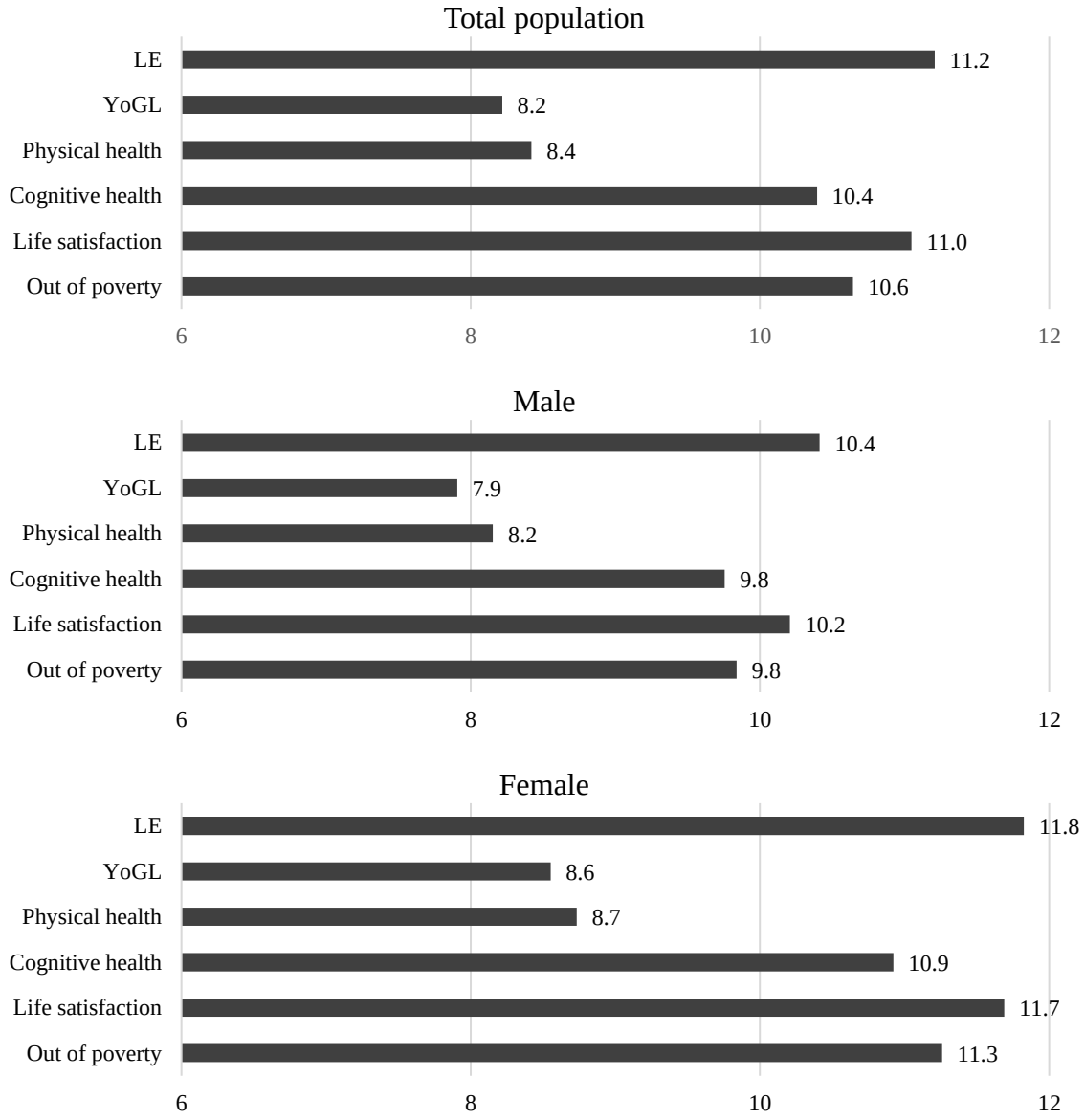


Note: LE: Life expectancy; YoGL: Years of Good Life

Figure 2 depicts the Years of Good Life for those over 60. It was observed that the YoGL among men was 14.3 years, while the observed life expectancy (LE) was 17 years. The YoGL then was about 84% of the LE. The YoGL for women was 16.1 years, and the observed LE was 19.2 years. The YoGL, in this case, is about 83% of the observed LE. An estimate for the Philippine female population in 2014 was included in a seminal paper regarding the application of YoGL to provide perspective (Lutz et al., 2018). The YoGL for women aged 60 and over was 13 years, although it has to be noted that the results were based on small sample size and that the life table was truncated above 60 years of age. For both sexes, physical health generated the fewest YoGL, followed by cognitive health and living out of poverty.

Men's and women's YoGL at 70 years of age was 7.9 and 8.6 years, respectively (Figure 3). Having good physical health was at a level that approximated the overall YoGL, similar to the results at age 60. Life satisfaction was closest to the observed LE for both men and women.

Figure 3: YoGL and Individual Dimensions at Age 70 by Sex



Note: LE: Life expectancy; YoGL: Years of Good Life

Discussion

The results showed that specific measures could operationalize the different indicators when estimating Years of Good Life. In the context of Philippine older adults, the Nagi functional measure, SPSMQ test result, having satisfaction in life, and not experiencing hunger can be used as measures of physical and cognitive health, life satisfaction, and being out of poverty, respectively. It was also seen that physical limitations yield the shortest length of YoGL for both men and women at ages 60 and 70 years. At the same time, the life satisfaction aspect of YoGL has little difference from the observed life expectancy.

Life satisfaction has been found to contribute significantly to the number of years that older people in the Philippines can expect to live a good life. Having recreational activities and

maintaining social interactions and relationships are associated with this situation (Escolar Chua & de Guzman, 2014; Moreno-Agostino et al., 2021). Also, having an adequate physical environment has been observed to be related to higher well-being. Such environmental factors were identified as street conditions, noise, and the availability of transportation. Other factors were also found to negatively affect life satisfaction, like living in lower-income communities and rural areas (Badana & Andel, 2018; Tariga & Cutamora, 2016).

Concerning the previous statement on the adverse effects of barriers, poverty has been found to have a modest impact on the YoGL of older Filipino adults. People living in poverty are vulnerable since they have higher risks of noncommunicable diseases (NCDs) (Bukhman et al., 2020). In many societies, households with a lower capacity to spend have limited options, especially regarding healthier alternatives and even the frequency of food consumption (Kriaucioniene et al., 2020; Vicerra, 2022a). Programs can be established to address this social aspect, particularly food poverty. The households' responses vary greatly depending on the nature of welfare provision, as underscored in a study of the facets of poverty in the general population of the Philippines. Therefore, the delivery of government programs may have to be targeted in terms of regional and specific income classifications (Rivera, 2020). To exemplify, the expansion of health insurance coverage was successful to the extent that it increased membership. Still, it was found that many of the new members were from the middle-income level (Abrigo et al., 2022). Deprivation of basic needs will have persistent effects on the health and overall well-being of older adults.

The analysis observed that the health functioning of older Filipinos weighed on their overall YoGL. Cognitive performance was associated with socioeconomic status, especially regarding educational gradients (Vicerra & Pothisiri, 2020). Securing the quantity and quality of education at a younger age can provide advantages at an older age because of the better health behavior that people with higher educational attainments tend to display (Lutz & KC, 2011). The results on physical health in the current paper coincide with the observations on the active life expectancy (ALE) of older Filipino adults (Cruz et al., 2022). The proportion of remaining life in an active state declined for both men and women, with an expansion of morbidity. As life expectancy rises in the Philippines, it has been suggested that disability prevalence increases and is not limited to older individuals at terminal ages.

The application of YoGL, as shown here, had a 'bottom-up' approach such that individual-level factors could generate a well-being indicator for older adults. The results were limited because the comparisons were only of men and women at different ages. The YoGL approach can also consider other characteristics, such as distinctions between urban and rural residences and education differentials. The comparison of population sub-groups is possible and can be interpreted with ease. This focus is the strength of this approach to the study of well-being.

Conclusion

The Philippine economy is seen to grow further, and its population will continue to increase. The structure of its population will also shift gradually toward one with an aging structure. As demonstrated in this study, various factors can influence the quality of life of the older population. It is then necessary to note that understanding the heterogeneity of the older population is crucial. The different characteristics and contexts of older people at various stages of age and those with differences in characteristics of sex and health status can show

that the level of well-being varies. Examining this heterogeneity is key to catering to the social and health needs of those in the said age group at present and even in the future.

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