

## RESEARCH ARTICLE

# A Comparative Study on Health Risks, Lifestyle Behaviors, Health Perceptions, and Health Seeking Patterns between Older and Younger Filipinos in the Rural Areas

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## Abstract

**Background:** Worldwide trends in health risks, lifestyle behaviors, health perceptions, and health-seeking patterns suggest alarming disparities among individuals from low- and middle-income countries. Such international comparisons are particularly troubling for older individuals ( $\geq 60$  years).

**Objectives:** This study aims to compare health risks, lifestyle behaviors, health perceptions, and health-seeking patterns between younger ( $<60$ ) and older ( $\geq 60$ ) Filipinos from rural communities in the Philippines.

**Methods:** A comparative cross-sectional study was employed with 863 younger and 427 older Filipinos. Data were analyzed using frequencies, chi-squares, and T-tests.

**Results:** Older participants were more likely to be single/widowed,  $\leq$  high school education and had higher rates of hypertension, high cholesterol, diabetes, and depression. They reported poorer health status and went to the village health center when sick. Furthermore, they were less likely to drink alcohol and see a physician.

**Conclusion:** There were significant differences in modifiable health risks and lifestyle behaviors and differences in health perceptions between younger and older cohorts of Filipinos living in rural areas in the Philippines. Our findings suggest the need to design separate health promotion interventions that target older and younger Filipinos' unique needs from rural communities.

**Keywords:** *Low-Middle-Income Countries, Aging, Cross-sectional, Population Health, Philippines*

## Introduction

The population of older adults in the Philippines is increasing. It is projected that from 2010-2030, the youngest old population will increase by 4.2%, while the middle and oldest old populations will rise by 0.4% (Help Age Global, 2017). Other reports also predict that the Philippines will soon transition to an aging society by 2030, with 7.0% of the population aged 65 years and above (Philippine Institute for Development Studies, 2020).

An aging society is a driving force toward an increase in noncommunicable diseases. Noncommunicable diseases

(NCD) have become the leading cause of disease burden in the Philippines and six other countries in Southeast Asia because of the demographic and epidemiological changes in the previous decades (Tuangratananon et al., 2019). Noncommunicable diseases account for an estimated 80% of morbidity and mortality in low- and middle-income countries, with 82% of the 16 million people dying prematurely on or before reaching 70 (Ruan et al., 2018; Teo et al., 2013). As a result, the aging population worldwide would significantly burden households, governments, and healthcare systems (Bollyky et al., 2017;

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Sudharsanan & Bloom, 2018; United Nations, 2020). Noncommunicable diseases are responsible for 35% of illness, disability, and early death in the Philippines, with more than 9 million deaths occurring before 60 (WHO, 2021).

The four major diseases that cause the largest burden of NCD are cardiovascular diseases, diabetes, cancers, and chronic respiratory illnesses. In addition, these four diseases share the risk factors of tobacco use, unhealthy diets, harmful alcohol intake, and physical inactivity (Bayog & Waters, 2018). To address these risk factors, countries like the Philippines need increased country-level engagement to support policy development across all risk factors and create frameworks to achieve better policy outcomes (Flores et al., 2018). However, the development and implementation of NCD policies in low- and middle-income countries, such as the Philippines, have been hampered by several factors, including a lack of financial and human resources and competing priorities, such as the COVID-19 pandemic. Similarly, rural populations in the Philippines face even greater healthcare gaps, resulting in lower primary and secondary risk mitigation measures and inadequate resources, increasing the risks of individuals, households, and communities living in underserved areas. Most significantly, local governments and leaders must resolve implementation gaps and additional problems such as context, resource allocation, and data availability.

Perceptions and behaviors about NCD, risk factors, and healthy lifestyle behaviors are related to cardiovascular disease morbidity and mortality (Tkatch et al., 2017). According to the WHO (2021), NCD care should include lifestyle changes such as daily physical exercise and a well-balanced diet to prevent complications. As an effective intervention technique, lifestyle modification necessitates considering factors such as knowledge, attitude, and health-seeking patterns or behaviors that can influence an individual's adoption of healthy behavior. A literature review reveals that cognitive factors (knowledge) and emotional factors (attitude) positively affect healthy behavior. Several studies also reported that individuals, whether young or old, who participate actively in their care have better health outcomes (e.g., use of healthcare, contact with a care provider, and feedback about care). Most of these studies argue the importance of enhancing awareness, attitudes, and behaviors and managing NCD (Amarasekara et al., 2016; Juma et al., 2018; Verma, 2019).

Secondary prevention of NCDs, such as cardiovascular diseases, is all-encompassing. Therefore, these interventions are for younger and older adults (Piepoli et al., 2016; Fleg et al., 2013). However, secondary preventions for older adults are more complex because older adults often have comorbidities, a decline in physical mobility, and polypharmacy (Bell et al., 2015; Salim et al., 2015; Rich et al., 2016). Therefore a more

individualized and old age-appropriate approach must be in place because there is a difference in health risk, lifestyle behavior, health perceptions and health-seeking behavior between younger and older adult Filipinos in rural areas. As far as the authors are aware, however, there is a lack of study in this area, particularly in less developed nations like the Philippines. As a result, our study findings and insights can help policymakers craft national strategies to better serve the needs of an aging population. Therefore, this study aimed to compare health risks, lifestyle behaviors, health perceptions, and health-seeking patterns between younger (< 60 years) and older ( $\geq$  60 years) Filipinos from rural communities in the Philippines.

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## Methods

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The study was reviewed and approved by the University of California Irvine Institutional Review Board and the Research Ethics Board at the University of the Philippines Manila. This descriptive cross-sectional study employed a convenient sample of individuals ( $\geq$  18 years old) who sought care at their village health center in rural areas in the Philippines and were invited to participate. Those who gave verbal consent (the need for written informed consent was waived) completed individual face-to-face interviews to capture data on health risks, lifestyle behaviors, health perceptions, and health-seeking patterns. The data was derived from a parent study where trained bilingual community health workers interviewed a nationally representative group of Filipinos living in rural areas in the Philippines. Additional details related to the parent study are described elsewhere (Cacciata et al., 2021).

## Measures

Trained community workers collected information on demographic variables such as age, gender, marital status, and educational levels. Age was noted ~~down~~ as age at the last birthday. Marital status was categorized as single/widow or married/cohabiting. Educational level was categorized as having no formal education, primary school graduate, high school graduate, college graduate, and postgraduate.

## Health risks

During enrollment, the participants' current height and weight were measured in the village health center. Body mass index (BMI) was calculated ( $BMI = \text{kg}/\text{height in meters}^2$ ) to identify overweight and obese participants. The suggested categories for Asian populations were used and are as follows: less than 18.5 kg/m<sup>2</sup> underweight; 18.5–23 kg/m<sup>2</sup> normal weight (increasing but acceptable risk); 23–27.5 kg/m<sup>2</sup> overweight (increased risk) and 27.5 kg/m<sup>2</sup> or higher obese (high risk) (Barba, 2004). Participants were also asked about their

personal and family history of different cardiometabolic diseases (e.g., hypertension, high cholesterol, or diabetes). The said information was recorded as the presence or absence of the risk factor.

### Lifestyle behaviors

Participants were asked whether they met the recommended levels of physical activity and the number of servings of fruit and vegetables as surrogates of eating and physical activity patterns. The recommended level of physical activity was  $\geq 150$  minutes per week of accumulated moderate-intensity physical activity, based on American Heart Association Guidelines (Arnett et al., 2019). Healthy dietary patterns were defined as consuming five or more servings of fruits and vegetables (at least 400 grams per day); fewer than five servings were considered insufficient (Eckel et al., 2014). Assessment of smoking behaviors was obtained through self-report; participants were asked to indicate whether they were current smokers, previous smokers, or had never smoked. Alcohol history was assessed by asking participants if they were current, previous, or never drinking alcohol.

### Health perceptions

The measure of perceived health status was a single-item scale obtained from the Short Form 12 (Ware, 1996). This global measure of health status (health perceptions) tapped participants' rating of their current health in general by asking them to rate their overall health as either "excellent," "very good," "good," "fair," or "poor." The categories for self-rated health were later recoded to combine "fair" and "poor" and "excellent," "very good," and "good" to create only two levels: fair-poor and good-excellent.

### Health-seeking behaviors

Participants were asked to indicate whether they sought care from a physician, nurse, acupuncturist, faith healer (i.e., *albolarios*), or massage therapist (i.e., *hilots*). They were also asked to report on using various remedies when sick (e.g., prayer, going to the village health center, self-medication with herbal medicine, and over-the-counter medications). Finally, they were asked to indicate who they were most likely to go to for medical advice when sick (e.g., a trained medical provider or a trusted person).

## Data Analysis

The data were analyzed using IBM SPSS Statistics (Version 26) predictive analytics software. Frequency distributions of the various demographics in each sample were obtained. Chi-square statistics were obtained to examine the distributions and differences in health risks, lifestyle behaviors, health perceptions, and health-seeking patterns of younger and older participants. *T*-tests were performed to determine the mean in the BMI, systolic and diastolic blood pressures, and overall perceived health status between the two age groups.

## Results

Table 1 shows the distribution of the study population according to age, sex, marital status, and educational level. The mean age for older adults was  $69.22 \pm 7.02$ , while for younger adults, it was  $40.13 \pm 12.76$ . There are more females than males for both age groups, with 64.9% and 63.5%, respectively. In addition, older participants were more likely to be single, widowed, or divorced and had at least primary (37.2%) and high school education (37.2%).

Table 1. Sociodemographic of the Sample (N=1290)

| Variables               | Older |      |  |                | Younger |      |  |                | p     |
|-------------------------|-------|------|--|----------------|---------|------|--|----------------|-------|
|                         | n     | %    |  | $\bar{x}$ (SD) | n       | %    |  | $\bar{x}$ (SD) |       |
| Age                     | 427   |      |  | 69.22 (7.02)   | 863     |      |  | 40.13 (12.76)  |       |
| Sex                     |       |      |  |                |         |      |  |                | 0.63  |
| Male                    | 150   | 35.1 |  |                | 315     | 36.5 |  |                |       |
| Female                  | 277   | 64.9 |  |                | 548     | 63.5 |  |                |       |
| Marital status          |       |      |  |                |         |      |  |                | <.001 |
| Single/Widowed/Divorced | 196   | 46   |  |                | 326     | 37.8 |  |                |       |
| Married/Cohabiting      | 230   | 54   |  |                | 536     | 62.2 |  |                |       |
| Educational level       |       |      |  |                |         |      |  |                | <.001 |
| No formal education     | 43    | 10.1 |  |                | 9       | 1    |  |                |       |
| Primary school graduate | 159   | 37.2 |  |                | 72      | 8.3  |  |                |       |
| High school graduate    | 159   | 37.2 |  |                | 403     | 46.7 |  |                |       |
| College graduate        | 56    | 13.1 |  |                | 302     | 35   |  |                |       |
| Postgraduate            | 10    | 2.3  |  |                | 77      | 8.9  |  |                |       |

Older participants also had higher rates of hypertension, high cholesterol, diabetes, depression, and difficulty sleeping (Table 2). In addition, older adults in our sample were less likely to drink and have a higher rate of depression than their younger counterparts (all  $p$ 's  $<.001$ ). No differences were found in terms of BMI categories ( $p$ -value = .25), physical activity ( $p$  value= .66), vegetable ( $p$ -value = .84) and fruit ( $p$  value= .50) intake, and smoking history ( $p$ -value =.18).

Table 3 illustrates younger and older participants' health perceptions and health-seeking patterns. Older adults were more likely to report a poorer health status (16.1%,  $p$  value=  $<.001$ ). In addition, less older adults sought care from a physician or nurse compared to their younger counterparts. However, older adults reported going to the village

**Table 2.** Differences in Health Risk and Lifestyle Behaviors (N=1290)

| Variables   | Older |      | Younger |      | $\chi^2 p$ |
|---|-------|------|---------|------|------------|
|   | N     | %    | n       | %    |            |
| BMI   |       |      |         |      | 0.25       |
| Underweight   | 45    | 10.5 | 112     | 13   |            |
| Normal  | 258   | 60.4 | 476     | 55.2 |            |
| Overweight  | 87    | 20.4 | 182     | 21.2 |            |
| Obese   | 37    | 8.7  | 93      | 10.8 |            |
| Previous medical condition                                    |       |      |         |      | $<.001$    |
| High blood pressure   |       |      |         |      |            |
| No  | 114   | 26.7 | 628     | 72.8 |            |
| Yes   | 313   | 73.3 | 235     | 27.2 |            |
| High cholesterol  |       |      |         |      | $<.001$    |
| No  | 282   | 66   | 722     | 83.7 |            |
| Yes   | 145   | 34   | 141     | 16.3 |            |
| Diabetes  |       |      |         |      | $<.001$    |
| No  | 297   | 69.6 | 806     | 93.4 |            |
| Yes   | 130   | 30.4 | 57      | 6.6  |            |
| Physical activity   |       |      |         |      | 0.66       |
| $\leq 3$ hours per week                                       | 370   | 86.7 | 750     | 87.5 |            |
| $> 3$ hours per week  | 57    | 13.3 | 107     | 12.5 |            |
| Number of servings of vegetable consumed in the past two days |       |      |         |      | 0.84       |
| $\leq 4$ servings   | 379   | 88.8 | 761     | 88.4 |            |
| $> 5$ servings  | 48    | 11.2 | 100     | 11.6 |            |
| Number of servings of fruits consumed in the past two days    |       |      |         |      | 0.5        |
| $\leq 4$ servings   | 387   | 90.8 | 772     | 89.7 |            |
| $> 5$ servings  | 39    | 9.2  | 89      | 10.3 |            |
| Smoking history   |       |      |         |      | 0.182      |
| Never   | 328   | 77.2 | 698     | 81.4 |            |
| Current   | 71    | 16.7 | 112     | 13.1 |            |
| Previous  | 26    | 6.1  | 48      | 5.6  |            |
| Alcohol history   |       |      |         |      | $<.001$    |
| Never   | 289   | 67.8 | 438     | 50.9 |            |
| Current   | 93    | 21.8 | 271     | 31.5 |            |
| Previous  | 44    | 10.3 | 152     | 17.7 |            |
| Sleeping difficulty   |       |      |         |      | $<.001$    |
| None  | 30    | 7.1  | 182     | 21.2 |            |
| Sometimes   | 126   | 29.6 | 325     | 37.9 |            |
| Most of the time  | 175   | 41.2 | 260     | 30.3 |            |
| All the time  | 94    | 22.1 | 91      | 10.6 |            |
| Depression  |       |      |         |      | $<.001$    |
| Normal  | 336   | 78.7 | 693     | 80.3 |            |
| Borderline  | 44    | 10.3 | 121     | 14   |            |
| Depressed   | 47    | 11   | 49      | 5.7  |            |

Table 3. Present Health Perceptions and Health-Seeking Patterns (N=1290)

| Variables                          | Older |      | Younger |      | x <sup>2</sup> p |
|------------------------------------|-------|------|---------|------|------------------|
|                                    | N     | %    | n       | %    |                  |
| Perceived health status            |       |      |         |      | <.001            |
| Fair/Poor                          | 68    | 16.1 | 75      | 8.7  |                  |
| Good/Excellent                     | 355   | 83.9 | 783     | 91.3 |                  |
| Sought care from a:                |       |      |         |      |                  |
| Physician                          |       |      |         |      | <.001            |
| No                                 | 210   | 49.2 | 298     | 34.6 |                  |
| Yes                                | 217   | 50.8 | 563     | 65.3 |                  |
| Nurse                              |       |      |         |      | <.001            |
| No                                 | 413   | 96.7 | 807     | 93.6 |                  |
| Yes                                | 13    | 3    | 55      | 6.4  |                  |
| Faith healers                      |       |      |         |      | 0.32             |
| No                                 | 411   | 96.3 | 820     | 95   |                  |
| Yes                                | 16    | 3.7  | 43      | 5    |                  |
| Herbalist                          |       |      |         |      | 0.62             |
| No                                 | 379   | 88.8 | 754     | 87.4 |                  |
| Yes                                | 48    | 11.2 | 108     | 12.5 |                  |
| Various remedies when sick         |       |      |         |      |                  |
| Prayer                             |       |      |         |      | 0.16             |
| No                                 | 250   | 58.5 | 540     | 62.6 |                  |
| Yes                                | 177   | 41.5 | 323     | 37.4 |                  |
| Going to the village health center |       |      |         |      | <.001            |
| No                                 | 229   | 53.6 | 681     | 78.9 |                  |
| Yes                                | 198   | 46.4 | 182     | 21.1 |                  |
| Self-medication (herbal medicine)  |       |      |         |      | 0.9              |
| No                                 | 246   | 57.6 | 494     | 57.2 |                  |
| Yes                                | 181   | 42.4 | 369     | 42.8 |                  |
| Over-the-counter drugs             |       |      |         |      | 0.31             |
| No                                 | 408   | 95.6 | 812     | 94.2 |                  |
| Yes                                | 19    | 4.4  | 50      | 5.8  |                  |

## Discussion

The current study compared health risks, lifestyle behavior, health perception, and health-seeking patterns among older and younger Filipinos in the Philippines. The findings indicate that older adults reported higher health risks, lower health perception, similar lifestyle behaviors, and greater health-seeking patterns. To the best of our knowledge, this is the first study to report on these outcomes in a relatively large sample of Filipinos living in rural, largely underserved communities.

### Addressing Health Risks in Older People

Older Filipinos in the Philippines have a higher NCD rate than their younger counterparts. This is similar to Filipino-Americans who were older (average age 57.5 ± 14.8) and had lived in the U.S. the longest (Bayog & Waters, 2018). Furthermore, in a study of five subgroups of Asian Americans (e.g., Filipinos, Chinese, Japanese, Koreans, and Vietnamese), results suggest

that Filipinos were most likely to have poorer physical health with the highest number of chronic diseases, including high blood pressure, and the highest level of disability alongside their Vietnamese counterparts (Kim et al., 2010). Furthermore, multiple studies have shown that older age, hypertension, and diabetes are associated with heart disease. Some studies have also discovered a correlation between hypertension and cardiovascular disease in Filipino American women (Ancheta et al., 2014). In addition, according to the World Health Organization (2021), in the Western Pacific Region, every country experiences the rise of NCDs such as heart disease, stroke and diabetes, exacerbated by an aging population. Therefore, ensuring that NCD services are made available to older people and services for health promotion for younger adults to prevent chronic illnesses.

In the Philippines, the Department of Health initiated the "Hypertension and Diabetes Club" program, which aims to supply free medications for hypertension and diabetes utilizing

the Philippine Package of Essential NCD Intervention (PhilPEN) protocol (Martinez et al., 2015). Furthermore, PhilPEN will be available nationwide to serve as a community support group for information dissemination and promotion of sufficient blood pressure control and blood sugar (Castillo-Carandang, 2020).

### Promoting Healthy Lifestyle

Our results show that older adults are less likely to drink than younger adults. This is congruent with other studies (Delker et al., 2016) that alcohol consumption differs in different socioeconomic factors such as age, and that there is an overall decline in alcohol consumption with age, especially after the age of 65 (Beyer et al., 2019; Chan et al., 2007).

According to the National Epidemiologic Survey on Alcohol and Related Conditions and the National Survey on Drug Use and Health, people aged 18-25 are relatively at high risk for alcohol use disorder and inadvertent injury caused by alcohol consumption (Delker et al., 2016). Furthermore, alcohol consumption at an early age results in long-term health effects (Patrick et al., 2013), such as alcoholic liver disease. In addition, it increases the risk for other chronic diseases (Beyer et al., 2019). This warrants alcohol moderation interventions for younger adults, such as screening and counseling in the primary healthcare service delivery that aims to educate the hazardous impact of drinking alcohol (Beyer et al., 2019; O'Donnell, 2014).

There was no difference in physical activity found between older and young. These findings may be explained by the profile of our respondents, who were relatively healthier and may not have issues with mobility. This result is consistent with a previous study wherein the physical activity of older and younger adults is the same, which the sedentary nature of society can explain, especially among young adults (Johannsen, 2008). Also, energy expenditure and physical activity decrease with age (Westertep & Meijer, 2001), deleterious physical changes (St-Onge, 2005), and a decline in the ability to perform activities of daily living (Landi et al., 2007).

Also, there is no difference in diet between the older and younger cohorts. This result is not similar to the findings of other studies where older adults consume more fresh fruits and vegetables than younger adults (Inelmen et al., 2008). Under certain assumptions, this study's participants have better access to fruits and vegetables as they are residents of rural areas (Findley, n.d.).

For smoking history, our results show that there is no difference between the two groups. This is in contrast to a previous study that suggests that smoking prevalence is lower in older adults (> 65 years old) as compared to those who are younger (Kleykamp & Heishman, 2011). These findings spur further investigation into the smoking behavior of older and younger adults.

It was not surprising that we also found no differences in seeking help from faith healers, herbalists, self-medication rates and the use of over-the-counter medication between older and younger Filipinos. The Filipino population's cultural health beliefs and the colonial history of medicine in the Philippines may imply a high use of integrative health and increased participation in medical pluralism (i.e., the combined use of traditional and complementary alternative medicine) among Filipinos. This cultural practice emphasizes a holistic approach to treating illnesses using Eastern alternative approaches, including herbal therapies (Felicilda-Reynaldo et al., 2019). However, this area of research is in its infancy. Additional research to describe the prevalence, exact reasons, integration of integrative health, and self-medication by Filipinos warrant further investigation. Furthermore, relying on integrative health poses potential healthcare issues such as delayed access to needed healthcare, potential drug-herb interactions, and healthcare providers' readiness (or lack thereof) to incorporate integrative health into treatment regimens (Felicilda-Reynaldo et al., 2019).

Our findings revealed that older Filipinos had a harder time falling asleep than their younger counterparts. This is similar to the study of Suzuki et al. (2017), where the elderly showed age-associated sleeping pattern changes compared to younger people. Similarly, a study in China (Wang et al., 2019) also states that poor sleep quality or sleep disorder is prevalent among older adults in rural areas and can be correlated with chronic diseases such as hypertension and heart disease.

Our results indicate that older Filipinos living in rural areas had a higher incidence of depression which is consistent with other studies conducted among Filipino Americans in the U.S. (Martinez et al., 2020). Depression is usually associated with reduced quality of life (Que et al., 2013). However, the delivery of mental health treatment in the LMICs is insufficient due to a lack of primary care facilities, policy implementation, and trained mental health workers (WHO, 2019).

### Perceptions of Poorer Health and Caring for older people with complex care needs

Our results show that older adult Filipinos have poor health perception. This result ties well with previous studies wherein self-rated health decreases over time with age (French et al., 2012) as older adults develop more comorbidities such as chronic diseases (Meng & Darcy, 2016) and their perceptions are consistently related to their health and functioning (Warmoth et al., 2016). As a result of the deteriorating health of adult Filipinos, this reality will likely lead to an increase in the demand for healthcare services that necessitates a more robust health service delivery for older people with complex care needs.

## Supporting Health Seeking Behaviors

Older Filipino participants were also more likely to see a physician regularly and visit a village health center when sick. We speculate that this health-seeking behavior can be attributed to the fact that, on average, older adults experience comorbidities as they age, necessitating medical attention and support. A report shows that chronic illness is associated with older Filipino women who use healthcare in the Philippines (Cotingting et al., 2019). Furthermore, older Filipinos' greater use of healthcare can be attributed to their involvement in PhilHealth, the Philippine government's National Insurance program, which lowers out-of-pocket expenditures for beneficiaries aged 65 and up.

## Recommendations

Our results demonstrated and provided evidence of the value of providing support and resources to enhance NCD knowledge, attitudes, and behaviors in both age groups studied. Data from our study can also be used to direct local government leaders in country-level participation to promote policy implementation across all risk factors and build mechanisms to achieve better policy outcomes.

## Limitations

While this is the first study comparing health risks, lifestyle behaviors, health perceptions, and health-seeking patterns between younger and older cohorts of Filipinos living in rural communities, the cross-sectional study design does not explain the cause-and-effect modifiable risk factors, lifestyle behaviors, and health perceptions. Nonetheless, recognizing health risks and lifestyle behaviors will help tailor primary and secondary health education and promotion services to their needs. While all the questions about health risks, lifestyle behaviors, health perceptions, and health-seeking patterns were self-reported, some information bias may have been incorporated as self-reports are imperfect indicators of risks and behaviors. In addition, social desirability may have influenced how participants answered certain lifestyle behaviors.

## Conclusion

There were significant differences in modifiable health risks and lifestyle behaviors and differences in health perceptions between younger and older cohorts of Filipinos living in rural areas in the Philippines. However, both groups had a significant similarity in their health-seeking behaviors. Young and older Filipinos seek medical help from non-medical professionals such as faith healers and herbalists. This finding is a unique factor for both younger and older Filipinos in the Philippines as it is deep-rooted in the historical and cultural beliefs of the

population. Hence, the integrative knowledge of health risks and lifestyle behaviors in these two different age groups could help develop health promotion and prevention interventions that are more age specific. Noncommunicable disease risk factor management in the Philippines is a considerable challenge for healthcare providers, particularly those in the nursing profession, due to the wide range of ages served and the need for multifaceted approaches to prevention. More comparative research is also required to expand on the findings and ultimately enhance nursing practice and function. In addition, further evaluation of preventable health risks and lifestyle choices is required, and this can be accomplished through epidemiological and qualitative research investigations. Lastly, mixed-methods research, particularly studies undertaken in conjunction with community health centers in rural regions, could improve the ability of the nursing staff to create more effective health promotion and prevention programs.

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*“A nurse dispenses comfort,  
compassion, and caring  
without even a prescription.”*

– Val Saintsbury