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Perceived Health Impacts of Community-Based Programs and Services Among Older Adults in a Rural Municipality of Zamboanga Sibugay, Philippines: A Descriptive-Correlational Study

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ABSTRACT

Introduction: Community-based programs and services for older adults play a critical role in addressing their health and social needs in aging populations. This study aimed to examine the level of community support available for older adults, assess the accessibility and availability of implemented programs and services, and determine their satisfaction with government-provided benefits.

Methods: A descriptive-correlational research design was employed involving 110 older adults selected through purposive sampling from a rural municipality in Zamboanga Sibugay, Philippines. Data were collected using validity- and reliability-tested questionnaires and analyzed using descriptive statistics and Spearman's rho correlation.

Results: The majority of respondents were 65–69 years old, female, married, and relied on a pension as their primary source of income. Programs and services for older adults were generally perceived as always available. However, respondents agreed that deteriorating health, lengthy procedures for processing documents, limited initiative to approach community leaders and authorities, and difficulty remembering program dates and schedules sometimes posed barriers to accessing these services. At the 0.05 level of significance, the availability of programs and services for older adults was significantly associated with perceived health impacts ($p = 0.003$).

Conclusion: These findings suggest that the implementation and availability of community-based programs and services for older adults are positively related to perceived health outcomes and highlight the need to sustain and further strengthen such initiatives in rural communities.

Keywords: community-based programs; health services utilization; older adults; perceived health impacts; Philippines

INTRODUCTION

Population ageing is a defining demographic trend of the 21st century, with profound implications for health systems and communities worldwide. The number of people aged 60 years and older is growing faster than any other age group, particularly in low- and middle-income countries, and this shift is expected to exert substantial pressure on health and social care systems [1,2]. At the biological

level, ageing is understood as the cumulative impact of diverse molecular and cellular damage over time, leading to progressive declines in physical and mental capacity, increased risk of chronic disease, and ultimately death [2]. These changes heighten older adults' vulnerability and underscore the need for comprehensive, community-based strategies that promote healthy ageing rather than focusing solely on disease treatment.

The Philippines is undergoing a similar demographic transition. Recent reports based on Philippine Statistics Authority data indicate that Filipinos aged 60 years and older comprised about 8.5% of the national population, approximately 9.2 million persons, in 2020, nearly double the number recorded two decades earlier [3,4]. Projections suggest that the proportion of older persons will continue to rise substantially in the coming decades, with important consequences for health, social protection, and local governance [5]. National panel data from the Longitudinal Study of Ageing and Health in the Philippines (LSAHP) show that many older Filipinos live with multiple chronic conditions, functional limitations, and economic insecurity, highlighting the importance of policies and programs that address their complex health and social needs [6]. In this context, community-based programs and services are critical mechanisms for delivering support close to where older adults live, particularly in rural settings where access to facility-based care may be constrained.

At the policy level, Republic Act No. 9994, the Expanded Senior Citizens Act of 2010, provides a comprehensive framework for promoting the welfare of older persons in the Philippines. The law grants a range of benefits and privileges, such as discounts on selected goods and services, exemptions from value-added tax, health-care benefits including mandatory PhilHealth coverage, social pensions for indigent seniors, and priority access to essential services, intended to improve older adults' quality of life and enable their continued participation in society (Republic Act No. 9994, 2010). The implementing rules and related programs are delivered largely through community and local government mechanisms, including the Office of the Senior Citizens Affairs (OSCA), barangay health centers, and other community-level initiatives. These community-based programs and services are expected not only to ease financial burdens but also to enhance health, social participation, and overall well-being among older adults.

International evidence suggests that community-based and home- and community-based services (HCBS) can have meaningful effects on older adults' health and functional outcomes. A recent systematic review and network meta-analysis of community-based complex interventions found evidence that such interventions can support older people to sustain independence, remain living at home, and maintain activities of daily living [8]. Complementary evidence maps and systematic reviews of HCBS indicate that these services can help delay institutionalization, support independence, and improve well-being, although important gaps remain in the evidence base [9,10]. More recently, a systematic review of community-based interventions for healthy older adults concluded that structured interventions delivered in community settings can positively influence physical health, psychological well-being, and social connections [11]. Studies focusing on low- and middle-income countries also highlight the potential of psychosocial community-based interventions to improve mental health outcomes among older adults [12]. Overall, this body of work underscores the promise of community-based approaches for supporting older adults, while also emphasizing the need for context-specific evidence.

In the Philippines, empirical studies related to Republic Act No. 9994 have primarily examined awareness, implementation, and availment of statutory benefits and privileges among senior citizens. Bunda and Trinidad (2024), for example, reported a generally high level of awareness and satisfaction in the area of health benefits and social privileges of the Expanded Senior Citizens Act, but highlighted continuing challenges in implementation and access to benefits in Negros Occidental. Cablao et al. (2019) found that senior citizens in San Isidro, Nueva Ecija, demonstrated relatively high awareness of RA 9994's provisions, yet uneven perceptions of implementation across agencies and geographic

clusters. Other studies in highly urbanized settings have identified high awareness but only moderate availment of benefits, together with procedural barriers and difficulties in accessing discounts and services [15,16]. These findings suggest that while the legal framework is robust, the realization of benefits at the community level is variable and often constrained by administrative and contextual factors.

Despite these contributions, several gaps in the literature remain. First, most Philippine studies on RA 9994 have concentrated on awareness, satisfaction, or the extent of implementation of legal benefits, without explicitly examining how community-based programs and services are perceived to affect older adults' health outcomes. Second, existing research has largely focused on urban or more accessible municipalities; relatively little is known about how older adults in rural areas perceive the availability, accessibility, and health impacts of community-based programs and services designed for them. Third, there is a paucity of quantitative studies that link perceived availability of elderly-focused community programs and services with perceived health impacts in local Philippine settings. These gaps are particularly salient for rural municipalities in provinces such as Zamboanga Sibugay, where geographic isolation, resource constraints, and administrative barriers may affect both program delivery and uptake, yet empirical data on older adults' experiences remain scarce.

In response to these gaps, the present study focuses on older adults in a rural municipality of Zamboanga Sibugay, Philippines. Specifically, it aims to (1) describe the socio-demographic characteristics of older adults in the study community; (2) assess their perceptions of the availability and accessibility of community-based programs and services targeted to older persons; (3) identify self-reported barriers to accessing these programs and services; and (4) examine the association between perceived availability of elderly-based community programs and services and perceived health impacts. By situating older adults' perceptions and experiences within the broader framework of Philippine ageing policy and global evidence on community-based interventions, this study seeks to provide contextually grounded insights that can inform the design and strengthening of age-friendly community programs in rural settings.

METHODS

This quantitative study employed a descriptive–correlational survey design to describe the characteristics and perceptions of older adults and to examine the relationship between the perceived availability of community-based programs and services and perceived health impacts. The research was conducted in the rural municipality of Buug in Zamboanga Sibugay Province, Philippines, where the Office of the Senior Citizens Affairs (OSCA) and other community structures implement programs and services for older adults.

The target population comprised all registered senior citizens residing in the research locale at the time of data collection. Eligible respondents were those who (a) belonged to the senior citizen age bracket as defined in Philippine law, (b) were recipients or beneficiaries of OSCA-implemented programs and services, (c) were currently living in the Poblacion, Buug, and (d) gave informed consent to participate.

Based on the locally generated records from the OSCA in 2022, there were a total registered senior citizen population of 331 in the research locale. However, upon validation and updating of the census during the actual data collection period, only 116 older adults met the inclusion criteria of the study. Several individuals listed in the original registry were excluded because they were already deceased, had transferred residence outside the study locale, were inactive members of the OSCA organization, were unavailable during the data collection period, had health conditions that limited participation, or declined participation in the study. A purposive sampling approach was used to recruit all available and eligible older adults who met these criteria.

Of the 116 eligible respondents, 110 were included in the final analysis. Three questionnaires were excluded due to incomplete responses, while three eligible participants could not be included because of failure to follow-up during the retrieval and validation process. All retrieved questionnaires were reviewed for completeness and consistency prior to statistical analysis. Missing data were identified only in the three incomplete questionnaires, which were excluded from the final dataset using listwise deletion to maintain data accuracy and consistency. Hence, a total of 110 respondents participated in the study. No missing data were identified in the accomplished questionnaires; hence, all responses were included in the final analysis.

Data were gathered using a structured questionnaire developed by the researchers based on the study objectives and relevant literature on community-based programs and services for older adults and their health impacts. The instrument was prepared in English and translated into Cebuano, with back-translation to ensure conceptual equivalence. Content and face validity were established through expert review by a panel in community health nursing, gerontology, and research methods; item-level content validity ratios (CVR) ranged from 0.50 to 0.90. A pilot test with older adults from a neighboring area (not included in the main sample) was conducted, and reliability analysis yielded a Cronbach's alpha of 0.85, indicating good internal consistency.

The final questionnaire consisted of four sections with 35 items: socio-demographic characteristics; perceptions of the availability and accessibility of community-based programs and services for older adults; perceived challenges and barriers in accessing these programs and services; and perceived health impacts associated with participation in or access to such programs. In this study, perceived availability of elderly-focused community programs and services constituted the primary independent variable, while perceived health impacts served as the main dependent variable.

Data collection was conducted through face-to-face administration of the questionnaire, following coordination with local authorities and OSCA personnel. The purpose of the study and participation procedures were explained in a language understood by the respondents. For those with visual or literacy limitations, trained data collectors read the questions aloud and recorded the answers, ensuring that the responses reflected the participants' own views. Completed questionnaires were checked for completeness and accuracy.

Data were encoded and analyzed using JASP statistical software, Version 0.16.4. Descriptive statistics (frequencies, percentages, means, and standard deviations) were used to summarize socio-demographic characteristics and perceptions of availability, accessibility, barriers, and health impacts. Moreover, the interpretation of weighted mean scores was based on a five-point Likert scale. The interval ranges were computed by subtracting the lowest scale value from the highest scale value ($5 - 1 = 4$) and dividing the result by the number of response categories ($4 \div 5 = 0.80$), following the procedure described by Bosch et al. (2022) [17]. The following verbal interpretations were applied: 4.21–5.00 = Always; 3.41–4.20 = Often; 2.61–3.40 = Sometimes; 1.81–2.60 = Rarely; and 1.00–1.80 = Never. Consequently, given the ordinal nature of the scales and non-parametric distribution of the data, Spearman's rho correlation was employed to test the association between perceived availability of elderly-based programs and services and perceived health impacts, with the level of significance set at 0.05. Correlation strength was then interpreted using the guidelines adapted from Wuensch and Evans (1996) [18], where coefficients of 0.00–0.19 indicate very weak correlation, 0.20–0.39 weak correlation, 0.40–0.59 moderate correlation, 0.60–0.79 strong correlation, and 0.80–1.00 very strong correlation.

The study observed standard ethical principles of respect for persons, beneficence, non-maleficence, and justice. Ethical clearance was obtained from the Nursing Department Research Ethics Committee (under Protocol Clearance No. NDEC-2022-08). Participation was voluntary, and respondents were informed that they could decline or withdraw at any time without consequence to their access to services. No personal identifiers were written on the questionnaires; completed forms

were kept in a secure location accessible only to the research team (researcher, statistician, and thesis adviser), and results are reported in aggregate to protect confidentiality.

RESULTS

This section presents the study findings in tabular and narrative form, organized as follows: (1) socio-demographic characteristics of the respondents; (2) perceptions of the availability and accessibility of community-based programs and services for older adults; (3) perceived barriers to their availability and access; and (4) perceived health impacts. It also reports the Spearman's rho correlation between the perceived availability of community-based programs and services for older adults and their perceived health impacts.

Most respondents were 65–69 years old (41.8%), female (52.7%), and married (48.2%). Pension (42.7%) and social security benefits/dole-out (27.3%) were the most common sources of income. Table 1 below shows the characteristics of the respondents in this study.

Table 1. Frequency and percentage distribution of the respondents' sociodemographic characteristics (*n*=110)

Variables	Category	Frequency (*f*)	Percentage (%)
Age	*60 to 64 years old*	21	19.09
	65 to 69 years old	46	41.82
	70 to 74 years old	25	22.73
	75 to 79 years old	11	10.00
	80 to 84 years old	4	3.64
	85 to 89 years old	3	2.73
Sex	*Male*	52	47.27
	Female	58	52.73
Civil Status	*Single*	17	15.45
	Married	53	48.18
	Widowed	34	30.91
	Divorced	6	5.45
Source of Income	*Salary*	13	11.82
	Business	20	18.18
	Pension	47	42.73
	Social Security Benefits/Dole-out	30	27.27

Table 2. Descriptive Statistics of the perceptions of availability and accessibility of community-based programs and services for older adults (n = 110)

Variables	Indications	Grand Mean	Interpretation
Availability of Elderly-Based Programs and Services	*Medicine and Drug Purchase (20% discount); Medical and Dental Services (Diagnostic, Laboratory, and blood tests); Public Land Transportation privileges (20% discount, bus and jeep); Income tax exemption; Free pneumonia vaccination*	4.900	Always
Accessibility of Elderly-Based Programs and Services	*Availability of information about the programs; Ease of accessing the benefits (e.g., no barriers to applying, ease of transportation to service locations)*	4.662	Always

	Grand Mean	4.781	Always
Scaling: 4.21 – 5.00 Always	*3.41 – 4.20 Often*	*2.61 – 3.40 Sometimes*	*1.81 – 2.60 Rarely*
	1 – 1.80 Never		

Table 3. Descriptive Statistics of the perceived barriers to availability and access to community-based programs and services (n = 110)

Variables	Indications	Grand Mean	Interpretation
Barriers to the Availability of Elderly-Based Programs	*Not all programs and services for senior citizens are known to respondents; Lack of information about available programs and services*	2.800	Sometimes
Barriers to the Accessibility of Elderly-Based Programs	*Physical weakness; difficulty attending programs; Long process in accomplishing the required documents; Lack of initiative to approach authorities; Difficulty remembering dates/schedules*	2.750	Sometimes
Transportation Barriers	*Problems with transportation to access programs (e.g., difficulty in commuting or distance to the service locations)*	2.700	Sometimes
	Grand Mean	2.621	Sometimes
Scaling: 4.21 – 5.00 Always	*3.41 – 4.20 Often*	*2.61 – 3.40 Sometimes*	*1.81 – 2.60 Rarely*
	1 – 1.80 Never		

Table 4. Descriptive Statistics of the perceived health impacts of community-based programs and services among older adults (n = 110)

Variables	Indications	Grand Mean	Interpretation
Health Impacts on Financial Security	*Able to buy maintenance drugs with a discount; Able to buy wants without any cash assistance from my children*	4.80	Always
Health Impacts on Social Security	*Able to enjoy privileges that promote my sense of security*	4.75	Always
Health Impacts on Self-Esteem	*Improvement of self-esteem and self-worth*	4.85	Always
Health Impacts on Emotional Well-being	*Worry less about future needs*	4.70	Always
	Grand Mean	4.788	Always
Scaling: 4.21 – 5.00 Always	*3.41 – 4.20 Often*	*2.61 – 3.40 Sometimes*	*1.81 – 2.60 Rarely* *1*
	– 1.80 Never		

The results in Table 3 highlight the barriers to the availability and accessibility of elderly-based programs and services. The grand mean for barriers to availability is 2.800, indicating that respondents "*sometimes*" experience challenges due to a lack of information about available services. Barriers to accessibility, with a grand mean of 2.750, also suggest that respondents face occasional difficulties, including physical weakness, long processes to accomplish required documents, and trouble remembering schedules. Transportation barriers are slightly higher with

a grand mean of 2.700, indicating that respondents "*sometimes*" experience difficulty accessing programs due to transportation issues. The overall grand mean of 2.621 reflects that the barriers to accessing and utilizing elderly-based programs and services are perceived as moderate, with respondents facing occasional but not consistent challenges.

The data in Table 4 shows that the perceived health impacts of elderly-based programs and services are overwhelmingly positive, with a grand mean of 4.788, indicating that respondents feel the programs have a significant positive impact on their health. In terms of financial security, the grand mean of 4.80 suggests that senior citizens feel empowered by the ability to purchase maintenance drugs and their own wants without relying on their children. For social security, the grand mean of 4.75 indicates a strong sense of security from the privileges provided. The health impacts on self-esteem are particularly notable, with a grand mean of 4.85, suggesting a substantial improvement in the respondents' self-worth and confidence. Finally, the health impacts on emotional well-being are reflected in a grand mean of 4.70, showing that the programs help seniors worry less about their future needs. Overall, these results highlight the positive and significant effects that elderly-based programs have on the health, financial security, and emotional well-being of senior citizens.

Table 5. Correlation between perceived availability of community-based programs and services and perceived health impacts (n = 110)

Variable	Elderly-Based Programs and Services Available
Health Impacts	
Spearman's rho	0.278**
p-value	0.003
Interpretation	*p < .05, ** p < .01, *** p < .001

The correlation analysis in Table 5 shows a statistically significant relationship between the elderly-based programs and services available and the perceived health impacts of the senior citizen respondents. The Spearman's rho coefficient of 0.278 indicates a weak positive correlation based on commonly used correlation strength interpretation guidelines, suggesting that as the availability of elderly-based programs increases, perceived health impacts also tend to improve, although the relationship is relatively small in magnitude. The p-value of 0.003, which is lower than the 0.05 significance level, confirms that the relationship is statistically significant. This finding indicates that the availability of community-based programs and services may contribute positively to the perceived health outcomes of older adults.

DISCUSSION

The study's findings indicate that the largest proportion of respondents falls within the 65–69-year age bracket, with a decreasing representation in older age groups. This pattern broadly reflects global aging trends: as people advance in age, the size of each subsequent older-age cohort diminishes due to increasing mortality and morbidity [19]. The slight majority of female respondents aligns with the well-documented sex distribution in older populations, where women generally outlive men, contributing to higher female representation in senior cohorts [20,21]. Regarding marital status, nearly half of the respondents are married, with a notable portion widowed. Married status has been shown to be protective of health among older adults, with married individuals exhibiting lower all-cause mortality compared to their unmarried or widowed counterparts [22]. Moreover, a

substantial proportion of respondents rely on pension or social security benefits/dole-out as their primary income source, underscoring the economic dependency typical of older adults and the importance of social protection systems in this demographic [23,24].

Additionally, the results further show that elderly-based programs and services in the area are perceived as highly available and accessible by senior citizens. This aligns with global findings that well-established community-based programs improve engagement and utilization among older adults. When community-based models are effectively designed and implemented, they ensure greater participation and positive health outcomes for older populations [11,25]. Similarly, the strong perception of accessibility supports literature emphasizing that ease of access to community services, including information availability and transportation options, is crucial for the well-being of older adults. Thus, home- and community-based services (HCBS) are seen as key strategies to enabling older adults to age in place, maintain independence, and avoid unnecessary institutionalization [26].

In the context of Zamboanga Sibugay, Philippines, these findings are particularly significant. Given the rural nature of the municipality, where transportation and information dissemination can sometimes be barriers to accessing services[27], the high perceived availability and accessibility of programs suggest that local initiatives and government support are meeting the needs of the elderly population. These programs likely play an essential role in ensuring that older adults in this region have access to the healthcare, social services, and financial benefits that promote their health and quality of life. The results underscore the importance of maintaining and expanding these services to further enhance the health and well-being of the elderly in rural areas.

Additionally, the findings presented in the study further reveal that respondents perceive the barriers to the availability and accessibility of community-based programs and services for the elderly as moderate. Specifically, limited awareness of available programs suggests an information gap, which echoes findings from systematic reviews highlighting that older adults often face demand-side barriers, such as low knowledge of services, and supply-side barriers, including geographic isolation and service design [28]. The "*sometimes*" rating for physical, procedural, and scheduling barriers aligns with evidence that older adults encounter bureaucratic requirements, mobility limitations, and cognitive or memory issues that hinder access to benefits [29]. Similarly, transportation challenges reflect a well-documented barrier for older adults in rural contexts, where lack of transit alternatives, long distances, and poor infrastructure significantly impair access to social and health services [30,31]. In Zamboanga Sibugay, these moderate barriers suggest that while services are available, structural and informational obstacles still prevent full utilization, affecting the achievement of equitable health outcomes. To address these issues, older adults could benefit from leveraging technology to improve access to health information. For instance, Gonzalez et al. (2025) introduced one promising technological approach which fosters interactions between grandparents and grandchildren through digital platforms. Such strategy not only bridges the gap created by physical distancing but also enhances family bonding, thus, enhancing family dynamics and improve emotional well-being, providing a valuable tool for supporting older adults in overcoming barriers to accessing health and social services.

On the other hand, the findings indicate that older adults consistently perceive high health impacts from community-based programs and services, spanning financial security, social security, self-esteem, and emotional well-being. The high scores reflect that respondents feel enabled via benefits such as discounted medications and privileges to maintain financial independence, which aligns with broader evidence that economic support is a key determinant of successful ageing [33]. Consequently, the strong self-esteem impact resonates with research

demonstrating that self-worth is directly associated with older adults' health promotion behaviors [34]. Similarly, elevated emotional well-being and social security perceptions align with studies showing that community-based interventions enhance older adults' sense of connectedness, self-continuity, and motivation, factors critical for mental and social health [12,35]. In the Philippines, where ageing populations face both health and financial challenges, these results underscore the effectiveness of local community-based mechanisms in bolstering multiple domains of older adult well-being. This suggests that strengthening and sustaining such programs will be vital to optimizing health outcomes, resilience, and quality of life among older adults in rural municipalities.

Finally, the correlation analysis revealed a positive and statistically significant association between the perceived availability of community-based programs and services and the perceived health impacts of senior citizens (Spearman's rho = 0.278, $p = 0.003$). The obtained coefficient indicates a weak positive correlation, suggesting that greater perceived availability of community-based programs and services is associated with better perceived health outcomes among older adults, although the magnitude of the relationship is relatively small. Nevertheless, the statistical significance of the finding indicates that community-based support remains an important factor influencing the well-being of senior citizens. For example, a study conducted in China demonstrated that increased access to community-based care services was significantly associated with higher quality of life and better self-rated health among older adults [36]. Similarly, a review of HCBS found that such programs are beneficial for the mental health and well-being of older adults, although the physical health benefits can vary [37]. In the context of Zamboanga Sibugay, these results suggest that the elderly in the area who perceive a high availability of community-based programs experience better health outcomes, highlighting the importance of ensuring not only the presence of these services but also their accessibility to promote healthy aging in rural communities [38].

Strengths and limitations

While the findings of this study provide valuable insights into the perceptions of elderly-based programs and services, several limitations should be acknowledged. First, the study was conducted in a single rural municipality, which may limit the generalizability of the results to other regions with different demographic or socio-economic characteristics. Second, the use of self-reported data introduces the potential for response bias, as participants may overestimate or underestimate their experiences and perceptions. Additionally, the cross-sectional design of the study only captures a snapshot in time, limiting the ability to infer causality between the availability of programs and the perceived health impacts. Future research with a more diverse sample and longitudinal design could provide a deeper understanding of the long-term effects of community-based programs on the health of older adults.

CONCLUSIONS

This study highlights the critical role of community-based programs and services in enhancing the well-being of older adults, particularly in rural municipalities like Zamboanga Sibugay. The findings suggest that elderly citizens perceive these programs as both available and accessible, with significant positive impacts on their financial security, social security, self-esteem, and emotional well-being. Despite moderate barriers to accessing these services, such as limited information and transportation challenges, the overall perception of the programs'

effectiveness underscores the importance of continuing to support and expand such services to improve health outcomes.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

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AUTHOR CONTRIBUTIONS

LCA, EGMO, and RKMAT were the lead authors of the study who conceptualized, collected, and analyzed the data of the study. TDL and RIFG served as study supervisors who provided guidance and supervision in the data analysis and interpretation, and writing of the final manuscript.

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