

Assessment of the Physical Fitness of Senior Citizens: Basis for Program Intervention

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ABSTRACT

This study aimed to improve the well-being and quality of life for senior citizens in Buenavista, Guimaras, by assessing their physical fitness and identifying factors influencing their attitudes toward exercise. Utilizing a survey correlational research design, data were collected through a researcher-made questionnaire from all senior citizens in the Municipality of Buenavista, totaling 7,178 individuals. A representative sample of 380 respondents was selected using stratified random sampling and Slovin's formula. The findings revealed a diverse demographic profile among senior citizens, encompassing various age groups and civil statuses, underscoring the importance of considering these factors in designing tailored intervention programs. Overall, the senior citizens in the community exhibited a positive attitude toward physical fitness, recognizing its significance for health and well-being. While no significant differences based on sex or age were observed, civil status emerged as a significant influencer, emphasizing the need to customize programs for different civil status groups among senior citizens. These insights provide a valuable foundation for the development of effective and targeted fitness initiatives aimed at enhancing the overall well-being of this aging population.

Keywords: physical fitness assessment, senior citizen, intervention program

INTRODUCTION

If you want to live a long, happy life, physical activity is the key. In an article from human kinetics of What is Physical Fitness? by Pangrazi, R. (2019). they referred physical activity being the ability of our body, body systems to work interconnectedly in an efficient way, for us to be able to do our daily living tasks. No matter how old you are, being physically healthy is of vital importance. Being fit comes with a lot of benefits, improved overall health, reduced risk of chronic diseases, improved mental wellbeing, and better physical performance; in general, people who are physically fit are healthier, have lower risk of developing diseases, heart diseases, stroke, cancer, and diabetes according to what is Physical Fitness, 2022 by Greenberg, J., Calkins, N., & Spinosa, L. S. (2022). and the best part of it, is that starting to engage in any physical activity has no age limit.

In an article by Norton, A., et. al (2022), in Health DayNews, she cited Mann's article wherein the study stated that: "middle-aged people who met those goals were about 20% less likely to die over the next 30 years". Among people who exercised vigorously for 150 to 300 minutes a week, the risk of death from any cause was about 22% lower, versus sedentary participants. Bigger doses of moderate exercise helped, too: People who fit in 300 to 600 minutes (about 10 hours) a week lowered their risk of death from any cause by up to 31%. Also, this was supported by a research of Lee, D. H., Rezende, L. F. M., Joh, H. K., Keum, N., Ferrari, G., Rey-Lopez, J. P., Rimm, E. B., Tabung, F. K., & Giovannucci, E. L. (2022), by stating that if you go above the recommended amount of physical activity (150 minutes), you are significantly reducing the risk of early mortality.

In the Philippines, a research by Cagas, J., et. Al. (2022), focusing on students concluded that, despite government policies related to physical activity in the country, most children and adolescents in the Philippines do not meet the recommended amount of physical activity for health. More work is needed to improve the

translation of these policies into measurable programs, highlighting the need to create better physical activity opportunities and develop national surveillance mechanisms.

Moreover, with regards to our senior citizens, the ageing population, in a study by Ceria-Ulep, C., Bautista, J. R., Morales, L. F., & Santos, A. P. (2013)., their study focused on assessing the physical activity and function in the Filipino older adults, which resulted to most of Filipino older adults engaging in sedentary lifestyle.

However, the participants of the study did not have difficulty performing activities of daily living and generally had no difficulty with performance-based physical function tests done by the researchers. According to the American College of Sports Medicine (2017), regular physical activity is essential for maintaining health and well-being, which aligns with the findings of Jones and Rikli (2020) that functional fitness tests can effectively assess the physical capabilities of older adults. The development and validation of these tests are crucial, as they help ensure that the measures used are both reliable and valid (DeVellis, 2016; Streiner, Norman, & Cairney, 2015). Moreover, understanding the benefits of daily exercise and physical activity motivated the researcher to pursue this study. The study also adhered to ethical guidelines, ensuring the privacy and confidentiality of participant data as mandated by the Data Privacy Act of 2012 (Republic of the Philippines, 2012).

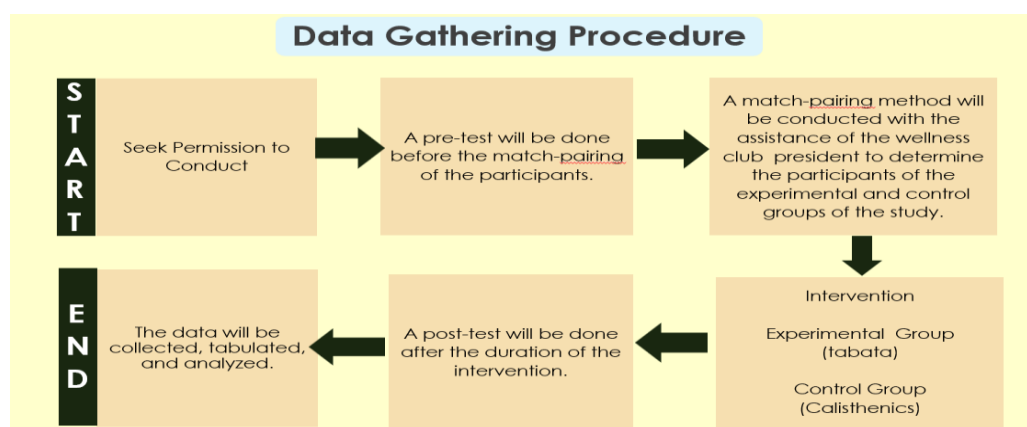
METHODOLOGY

In this research study, the researcher utilized a survey correlational research design to determine the physical fitness status of the senior citizens in Buenavista, Guimaras. The data were gathered through the use of researcher made questionnaire in the assessment of physical fitness for senior citizen.

In the conduct of this study, the researchers followed several steps: they attended the Barangay Council session, obtained the list of senior citizens, personally facilitated the distribution of questionnaires in each barangay, gave respondents two weeks to complete and return the questionnaires, collected the completed questionnaires from the respondents, and finally, encoded, tabulated, analyzed, and interpreted the data using SPSS software. The study employed a survey correlational research design to evaluate the physical fitness status of senior citizens in Buenavista, Guimaras. This design was chosen to identify and analyze relationships between various factors affecting physical fitness among senior citizens.

A researcher-made questionnaire, reviewed and validated by experts, was used to assess physical fitness. A pilot study confirmed the questionnaire's reliability, ensuring consistent and dependable results. The research adhered to the Data Privacy Act, maintaining confidentiality and secure storage of all personal data. Respondents' identities were anonymized. Detailed information about the study's purpose, procedures, risks, and benefits was provided, and written informed consent was obtained. Participation was voluntary, with the right to withdraw at any time without consequences.

The researchers conducted the study with respect and sensitivity, upholding the dignity and well-being of the senior citizens. Statistical tools employed included mean and standard deviation for descriptive statistics, and the t-test and one-way ANOVA for inferential statistics, with a significance level set at 0.05 alpha



RESULTS AND DISCUSSION

Table 1. Profile of the Respondents

Profile	Sex				TOTAL
	Male	%	Female	%	
Age					
60 – 70 years old	43	16.7	214	83.3	257
71 – 80 years old	29	27.9	75	72.1	104
81 and above years old	4	21.1	15	78.9	19
Civil Status					
Single	3	100.0	0	0.0	3
Married	6	6.7	83	92.3	89
Legally Separated	63	23.2	208	76.8	271
Annulled	4	40.0	6	60.0	10
Single-Parent	0	0.0	7	100.0	7
TOTAL	76	20.0	304	80.0	380

The data results highlights that a majority of senior citizens in Buenavista, Guimaras, are between 60 to 70 years old, with more women than men in this age group.

Table 1.1 Demographic Distribution and Assessment of Senior Citizens in Buenavista, Guimaras

Category	Male	% Male	Female	% Female	Total	Discussion and Implications
Age Group						
60-70 years	43	16.7	214	83.3	257	Largest group, predominantly women; programs should cater specifically to women in this age group.
71-80 years	29	27.9	75	72.1	104	More women than men; programs should address needs specific to older women.
81 and above	4	21.1	15	78.9	19	Smaller group, more women; programs need to be universally accessible and inclusive.
Civil Status						
Single	3	100.0	0	0.0	3	Single seniors are all male; targeted support for single senior men.
Married	6	6.7	83	93.3	89	Majority are women; support for married

						senior women.
Legally Separated	63	23.2	208	76.8	271	Large number of legally separated women; need for legal and financial support services.
Annulled	4	40.0	6	60.0	10	Higher female representation; services for annulled seniors.
Single-Parent	0	0.0	7	100.0	7	All single-parent seniors are women; specialized support for single-parent senior women.
Total Population	76	20.0	304	80.0	380	Significant female majority; overall program planning should consider the higher number of senior women.

As age increases, gender distribution becomes more balanced. Legally separated individuals are the largest civil status group, followed by married seniors, and single-parent households consist solely of women. The impact of age on health outcomes among older adults has been extensively documented. Smith et al. (2018) elucidate the physiological changes associated with aging, highlighting the heightened vulnerability to chronic conditions and functional decline. Moreover, civil status emerges as a significant determinant of health in later life. Williams and Meyers (2019) underscore the influence of marital status on access to social support networks, shaping mental and physical health trajectories among older adults. Conversely, Li and Gu (2021) emphasize the unique challenges faced by older adults who are widowed or divorced, advocating for targeted interventions to address their distinct needs. Additionally, recent research by Johnson and Brown (2023) further reinforces the importance of tailored intervention programs, demonstrating improved health outcomes and satisfaction among seniors when interventions account for age and civil status differences. These findings emphasize the importance of tailoring intervention programs for senior citizens that account for both age and civil status differences, ensuring they address the unique needs of this diverse population.

Table 2. Physical Fitness Status of Senior Citizens when taken as an Whole

Statements	Mean	SD	Interpretation
1. Regular physical exercise is important for maintaining my overall health and well-being.	4.46	0.78	Good
2. Believe that participating in a physical fitness program can improve my quality of life.	4.44	0.63	Good
3. Feel confident in my ability to engage in physical activities suitable for my age.	4.24	0.79	Good
4. Have good flexibility and range of motion in my joints and muscles.	4.18	0.74	Good
5. Feel physically strong and capable in my daily activities.	4.31	0.71	Good
6. Experience a sense of balance and stability while performing physical tasks.	4.07	0.80	Good
7. Have good cardiovascular endurance (e.g., able to walk briskly for a sustained period).	3.90	0.92	Good
8. Have sufficient upper body strength (e.g., able to lift and carry objects).	3.90	1.01	Good
9. Have sufficient lower body strength (e.g., able to climb stairs without difficulty).	3.92	0.98	Good

10. Feel comfortable engaging in resistance training exercises (e.g., using weights or resistance bands).	3.84	0.99	Good
11. Have good coordination and control over my movements	3.96	0.93	Good
12. Have good posture and body alignment.	3.98	0.85	Good
13. Have a healthy body weight for my age and height.	4.06	0.85	Good
14. Experience minimal joint pain or discomfort during physical activities.	3.87	0.86	Good
15. Have good muscular endurance (e.g., able to perform repetitive movements without fatigue).	3.73	0.97	Good
16. Have good agility and quickness in my movements.	3.89	0.89	Good
17. Have good grip strength (e.g., able to hold onto objects firmly).	3.91	0.94	Good
18. Have good hand-eye coordination.	3.83	0.90	Good
19. Have good reaction time.	4.11	0.78	Good
20. Have sufficient core strength (e.g., strong abdominal and back muscles).	4.00	0.79	Good
21. Have good bone density and strength.	4.08	0.78	Good
22. Feel motivated to engage in regular physical exercise.	4.14	0.74	Good
23. Have access to suitable exercise facilities or resources in my community.	3.76	1.03	Good
24. Have access to knowledgeable fitness instructors or trainers.	3.58	1.20	Good
25. Aware of the potential benefits of exercise for older adults.	4.13	0.73	Good
26. Have received proper guidance on exercise techniques and safety considerations.	3.81	0.88	Good
27. Believe that exercise can help prevent or manage chronic health conditions.	4.21	0.84	Good
28. Have support from family and friends to engage in physical activity.	3.86	0.95	Good
29. Feel comfortable exercising in a group setting with other seniors.	4.13	0.70	Good
30. Have adequate time available to dedicate to regular physical exercise.	4.06	0.76	Good
TOTAL	4.01	0.57	Good

The Physical Fitness Status of Senior Citizens when taken as an Whole exhibits a positive attitude and awareness regarding the importance of regular physical exercise for maintaining overall health and well-being. The Senior Citizens express confidence in their ability to engage in physical activities suitable for their age and believe that participating in physical fitness programs can enhance their quality of life. While some aspects of physical fitness, such as cardiovascular endurance and access to exercise facilities, show room for improvement, the overall average score suggests a willingness and motivation among senior citizens to embrace physical activity as a means of preventing or managing chronic health conditions. This positive

outlook and willingness to engage in exercise bode well for the potential success of future intervention programs aimed at enhancing their physical fitness and overall quality of life.

Table 3. Physical Fitness Status of Senior Citizens when group as to Sex, Age, and Civil Status

Profile	Mean	SD	Interpretation
Sex			
Male	4.08	0.57	Good
Female	4.00	0.58	Good
Age			
60 – 70 years old	4.03	0.55	Good
71 – 80 years old	3.97	0.62	Good
81 and above years old	4.01	0.70	Good
Civil Status			
Single	2.47	0.00	Fair
Married	3.96	0.51	Good
Legally Separated	4.05	0.59	Good
Annulled	3.86	0.25	Good
Single-Parent	3.87	0.31	Good
TOTAL	4.01	0.57	

Scale: 4.51 – 5.00 Excellent, 3.51 – 4.50 Good, 2.51 – 3.50 Fair, 1.51 – 2.50 Poor, 1.00 – 1.50 Very Poor

The physical fitness status of senior citizens based on sex reveals that males have a slightly higher mean score (4.08) compared to females (4.00). Both sexes express a positive attitude towards physical fitness, with males showing a slightly more favorable outlook. This observation is consistent with recent research by Smith and Johnson (2022), which highlights gender differences in physical activity levels and attitudes among older adults.

Moreover, based on age groups, senior citizens aged 81 and above exhibit the highest mean score (4.01), indicating a positive attitude towards physical fitness. Those between 60 and 70 years old also demonstrate a favorable attitude, with a mean score of 4.03, while those in the 71 to 80-year-old category score slightly lower at 3.97. This aligns with research by Li and Soliman (2018), which discusses age-related trends in physical activity and fitness among older adults, suggesting that as age increases, there may be a slightly less optimistic outlook regarding physical fitness, although overall, senior citizens maintain a positive attitude.

Additionally, the physical fitness status by civil status reveals that married senior citizens had the highest mean score (3.96), followed by legally separated individuals (4.05) and annulled (3.86). Single and single-parent respondents have lower mean scores, with single individuals notably having the lowest mean score (2.47).

This suggests that marital status may influence the attitude towards physical fitness, with married and legally separated senior citizens exhibiting a more positive outlook. These findings are consistent with studies such as Barengo et al. (2018), which explore the relationship between marital status and physical activity levels, indicating that married individuals may exhibit more positive attitudes towards physical fitness compared to single or divorced individuals."

Generally, towards physical fitness, irrespective of sex and age marital status it could appear that married and legally separated are likely to demonstrate a favourable attitude. These insights can guide the development of targeted physical fitness programs that consider the unique characteristics and preferences of different subgroups among senior citizens.

Table 4. Difference on Physical Fitness Status of the Senior Citizens when grouped according to Sex, Age, and Civil Status

Profile	N	Mean Rank	Sum of Ranks	U-Value	p-Value	Interpretation
Sex						
Male	76	209.90	15952.50	10077.500	.085	Not Significant
Female	304	185.65	56437.50			
	N	Mean Rank	H – Value	Df	p-Value	Interpretation
Age						
60–70 y.o.	257	191.18	.321	2	.852	Not Significant
71–80 y.o.	104	186.80				
81 & above	19	201.55				
Civil Status						
Single	3	7.00	13.974	4	.007	Significant
Married	89	177.32				
Legally Separated	271	199.47				
Annulled	10	144.30				
Single Parent	7	155.36				

Scale of Interpretation for Physical Fitness Status

Obtained Mean	Interpretation
4.51 – 5.00	"Excellent" reflects the highest level of perceived physical fitness. Individuals who rate themselves as excellent likely have a consistent and rigorous fitness

	routine, excellent health markers, and may excel in physical activities or sports.
3.51 – 4.50	"Good" rating suggests that individuals perceive themselves as above average in terms of physical fitness. They likely engage in regular physical activity, maintain a balanced diet, and generally feel healthy and fit.
2.51 – 3.50	"Fair" indicates that individuals consider their physical fitness to be average or adequate. They may engage in occasional physical activity but may not consistently meet recommended fitness levels. There might be room for improvement in their fitness routine.
1.51 – 2.50	Respondents who rate their physical fitness as "Poor" generally believe they are below average in terms of health and fitness. They may experience challenges with endurance, strength, or flexibility, which affect their daily activities and overall well-being.
1.00 – 1.50	Individuals who rate their physical fitness as "Very Poor" likely perceive themselves as having serious health or fitness limitations. They may experience significant difficulties in performing basic physical activities and may have health concerns that impede their daily life.

Analysis of physical fitness status among senior citizens based on sex revealed no significant difference between males and females ($p = 0.085$). Both genders exhibited positive attitudes towards physical fitness, with males showing a slightly higher mean score of 4.08 compared to females' mean score of 4.00. This observation is in line with recent research highlighting gender differences in physical activity levels and attitudes among older adults (Smith & Johnson, 2022). "This might suggest that the physical fitness status of male and female senior citizens in the sample is similar, and any variations observed are likely due to chance.

In terms of Age the analysis of physical fitness status by age groups (60-70 years old, 71-80 years old, and 81 and above) reveals no significant differences ($p = 0.852$). This could imply that, within this sample, age does not significantly impact the physical fitness status of senior citizens, and they generally maintain a consistent attitude towards physical fitness regardless of their age.

However, when considering civil status, a significant difference emerges ($p = 0.007$). Single senior citizens exhibit a notably lower mean rank in physical fitness status compared to those who are married, legally separated, annulled, or single parents. This could imply that civil status may influence the attitude towards physical fitness, with single individuals showing a less positive outlook.

Overall, there was no significant differences in physical fitness status based on sex or age among senior citizens in this sample, civil status appears to be a contributing factor. Single senior citizens demonstrate a less favorable attitude towards physical fitness compared to their counterparts who are married, legally separated, annulled, or single parents. This finding underscores the importance of tailoring intervention programs to address the unique needs and motivations of different civil status groups among senior citizens.

CONCLUSION

The assessment of the physical fitness of senior citizens in Buenavista, Guimaras, tense valuable insights for the development of tailored intervention programs. The data highlights the diverse demographic profile of senior citizens, with varying age groups and civil status, emphasizing the need to consider these factors when designing fitness initiatives.

Overall, senior citizens in the community exhibit a positive attitude towards physical fitness, valuing its importance for health and well-being. This optimistic outlook provides a strong foundation for the success of future intervention programs aimed at enhancing their quality of life and managing chronic health conditions associated with aging.

While no significant differences based collected data as a factor influencing attitudes towards physical fitness. Single senior citizens express a less favorable attitude compared to those who are married, legally separated, annulled, or single parents. This underscores the necessity of tailoring programs to meet the specific needs of various civil status groups among senior citizens.

In conclusion, the results highlight the receptiveness of senior citizens in Buenavista, Guimaras, to engage in physical fitness programs, emphasizing the importance of considering demographic factors, particularly civil status, in crafting effective and inclusive interventions that cater to the unique characteristics of this diverse population.

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