ENABLERS, BARRIERS, AND ADHERENCE TO VACCINATION AMONG ELDERLY

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ABSTRACT

Older adults aged 60 years and above are at high risk for infectious diseases such as influenza and pneumonia due to immunosenescence and comorbidities. Despite the availability of vaccination, adherence among older adults is not consistent, particularly across diverse geographic areas. This study aimed to identify enablers and barriers to vaccination and their correlation with adherence among older adults of Tangub City. The research design applied in the current study was a descriptive correlational study to understand the barriers and facilitators in older adults' perception towards vaccination adherence. A total of two hundred and four respondents were selected through a stratified random sampling method. The researchers utilized a researcher-made questionnaire, validated and composed of three parts: Enablers, Barriers, and Adherence to Vaccination, with a 5-point Likert scale validated by expert judgment and pilot-tested with a reliability of (Cronbach's alpha ≥ 0.70). The collected data were analyzed using descriptive statistics and Pearson correlation. Findings showed that trust in healthcare providers, health literacy and education, and perceived vulnerability to disease were significant enablers of vaccine adherence. Meanwhile, misinformation and fear, limited access to healthcare, and cultural or social beliefs served as significant barriers. The majority of respondents showed a generally good level of adherence to vaccination schedules, especially in receiving timely and repeat doses. The study concludes that enhancing health education, healthcare access, and addressing cultural beliefs are vital for improving vaccine adherence among older adults in urban and rural areas.

Keywords: *barriers, elderly, enablers, urban-rural communities, vaccine adherence*

DEDICATION

We, the researchers, humbly dedicate this research paper to Almighty God, whose unwavering guidance and strength have been our foundation throughout this journey. His blessings have carried us through every challenge, allowing us to complete this research.

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The Researchers

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The Researchers

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INTRODUCTION

Background of the Study

Older adults, typically defined as individuals aged 60 years and above, are people who have entered the later stages of life (Morgan et al., 2019). This age group often experiences various physical, cognitive, and emotional changes due to the natural elderly process. Individuals aged 60 years and older are at increased risk of pneumococcal disease, namely invasive pneumococcal disease (IPD) and community-acquired pneumonia (CAP), because of immunosenescence and comorbidities (Van de Garde et al., 2020). As people age, their immune system naturally weakens, making them more susceptible to infections and resulting in longer recovery times from illnesses. Because older adults possess these weaknesses, they face higher risks of hospitalization, disability, and mortality from infectious diseases compared to their younger counterparts (Fang et al.,2020). Preventive care, in the form of vaccination, is thus a priority for promoting elderly health and decreasing morbidity and mortality. It is crucial to provide older individuals with access to necessary vaccines to reduce their vulnerability. This is especially true in local communities with limited access to healthcare. Vaccination then becomes an essential part of preventive care among older adults.

Vaccination is one of the most effective health interventions in public health globally. It saves millions of lives every year from the effects of diseases (Malik et al., 2023). The vaccination action is intended to maintain herd immunity at levels that are too low for disease to be a significant issue and drive infection away, especially among older populations. Among the vaccines recommended for older adults, the influenza and pneumococcal vaccines are particularly important due to the high rates of

severe illness and death associated with these infections in elderly populations (Thomas, 2021). In the Philippines, preventive efforts have been made through Republic Act No. 9994, also known as the Expanded Senior Citizens Act of 2010, which provides free influenza and pneumococcal vaccination to indigent senior citizens. This law, enacted through the Department of Health (DOH), affirms the government's push for preventive healthcare for older adults, as outlined in DOH Memorandum No. 2020-0402, which defines vaccine procurement and delivery to local government units (DOH, 2020). Despite the demonstrated benefits of vaccination, legislative support, coverage rates among older adults remain suboptimal, especially in rural and urban areas (Philippine Statistics Authority, 2023; Boehmer et al., 2022).

One of the primary enablers of vaccination in older adults is trust in healthcare providers. The most powerful enabler recommendation from professionals is that older people are more likely to get the vaccine when they hear about it from a trusted doctor or nurse (Santibanez et al., 2020). Positive provider recommendations have a significant impact, with many older adults citing trust in their healthcare providers as a primary motivator for vaccination. Additionally, social and community support, such as assistance from family members or community organizations, facilitates access by providing transportation, financial support, or simply encouragement to pursue preventive healthcare (Cartier et al.,2020). Family, friends, and healthcare providers play a vital role as vaccine enablers by motivating older adults to pursue vaccinations and by providing practical support in accessing healthcare services (Nikolich-Žugich et al.,
2020).

Health literacy and education, as well as perceived vulnerability to disease, are also key facilitators of vaccination. Older people who are better informed about the risks and benefits of vaccines are more inclined to follow recommended vaccination regimens (Biasio et al., 2020). A person's perception that they are at risk increases the likelihood of taking preventive action, such as receiving the vaccine (Caserotti et al., 2021). Additionally, Public health programs that reduce vaccine costs or make vaccines available in community settings are also effective in increasing vaccination rates among older adults, particularly in underserved populations (Rodrigue, 2023). These factors, including trust, literacy, and perceived vulnerability, combined, enable elderly individuals to make informed choices about their own health and actively participate in vaccination programs.

Despite the promotion of vaccination, several barriers to vaccination in older adults continue to exist. One of the significant challenges is misinformation and fear; older adults are repeatedly exposed to misinformation regarding the safety of vaccines and side effects through social media (Wilson & Wiysonge, 2020). Some also view vaccines as intended for children or that vaccines would worsen their chronic diseases. Access to healthcare is also a major driver of vaccine hesitancy among older adults. The limited coverage of health services is particularly problematic for individuals with mobility issues or those residing in remote areas far from health facilities. Older people may lack transportation or even be physically unable to travel long distances (Vukovic et al., 2020).

In addition, long waiting periods, lack of home visits, and irregular schedules of mobile teams also discourage them from receiving timely vaccinations. These physical and logistical barriers create significant gaps in vaccine coverage. Therefore, the majority of

older persons are unvaccinated even when they are motivated. Cultural and social belief factors also influence decision-making, with some elderly individuals believing that natural treatment is more effective (Williams et al., 2019). Personalized counseling is also not present, further decreasing their information and inducing fear. Empathy-based interventions and effective communication are essential for addressing these psychological and cultural factors.

Adherence to vaccination in older adults involves not only receiving initial doses but also booster shots and adhering to the recommended schedule. Research indicates that adherence tends to be higher among better informed individuals, those with strong support networks, and those with easy access to vaccination services (Amwoma et al., 2023). Regular interaction with healthcare workers, family engagement, and accessibility of vaccine services in neighboring areas play a crucial role in ensuring timely and regular adherence to vaccines (Okoli et al., 2020). Public health workers in both rural and urban barangays play an essential role in ensuring high vaccine adherence through reminders and easy access to vaccines.

Repeated and timely vaccination is crucial in maintaining immunity against infections such as influenza and pneumonia, which are particularly hazardous to the elderly (Williams et al., 2020). Delayed or skipped doses can significantly weaken the vaccine's protective effects, particularly among individuals with weakened immunity. Thus, interventions that ensure regular follow-ups, home visits, and outreach in community settings are vital in maintaining long-term adherence (Boey et al., 2021). Ensuring that

older people understand the necessity of repeated vaccination and making the process as easy as possible are key factors in promoting persistent vaccine adherence in this group.

Although various studies emphasize the importance of enablers and barriers on vaccination behaviors, there is a lack of localized research on how these variables influence elderly vaccine adherence at the community level. Most existing literature tends to generalize conclusions across large populations, considering, in many instances, the complex issues confronting older adults in both rural and urban communities (Cunningham et al., 2021; Riccò et al., 2019). In addition, while it is well established that trust in healthcare providers and access problems are determinants, their associations with actual adherence, especially timelines of vaccination and repeat vaccination, have been underdeveloped. Moreover, there is also limited research comparing how enablers and barriers interact to influence adherence across various socio-cultural contexts. Understanding this relationship is crucial for designing interventions that address both the motivational and logistical challenges faced by elderly individuals.

The purpose of this research is to explore the enablers and barriers that affect adherence to pneumococcal and influenza vaccination among the elderly in selected barangays in Tangub City. More specifically, the research aims to determine how trust in healthcare providers, health literacy, education, and perceived vulnerability to disease. It also aims to measure how misinformation, access to healthcare, and cultural beliefs function as barriers to vaccination. The study will also assess the association between these enablers and barriers and the adherence behavior of older adults. The results will inform

the development of evidence-based intervention strategies to enhance vaccination adherence and health outcomes for older adults in selected barangays.

Theoretical Framework

The theoretical foundation of this study was Nola Pender's Health Promotion Model. It was developed in 1982 and revised in 1996. The HPM focuses on increasing individuals' well-being by identifying factors that motivate or hinder their engagement in health-promoting behaviors. This theory supports the research aimed at explaining how individuals decide to engage in a health action after assessing the threat posed by the disease itself,, alongside vaccine-related concerns among the elderly.

Nola Pender's Health Promotion Model (HPM) emphasizes the importance of individual behaviors, personal experiences, and environmental factors in promoting health and preventing illness. This model identifies factors such as perceived benefits, barriers to action, self-efficacy, interpersonal influences, and situational factors as key determinants of the decision to engage in a specific health behavior (Chen & Hsieh, 2021). It would thus be instrumental in promoting preventive health behaviors, such as adherence to vaccination among older adults.

The Health Promotion Model (HPM) offers a valuable framework for understanding the enablers, barriers, and adherence to vaccination among the elderly population. The model highlights how individual beliefs, behavior-specific thoughts, and the environment act to influence health behaviors. Regarding this study, the constructs of the HPM closely align with the study's variables. The enablers concept goes along with the perceived benefits, and self-efficacy aspects of the HPM, because as trust in the healthcare providers,

health literacy and education, and perceived vulnerability to disease, it becomes more likely to adhere vaccination, and improved quality of life act as direct facilitators of healthy behaviors, in line with Pender's discussion of factors that motivate toward positive action. The barriers align with the perceived barriers and situational influences in the model, which include misinformation and fear, limited healthcare access, and cultural beliefs that may discourage vaccine adherence. Interpersonal influences also play a role, as family and community support can either reinforce or weaken adherence behaviors. Finally, the vaccination adherence can be understood through the interplay of the enablers and barriers mentioned earlier, which are indeed conditioned by the perception of susceptibility to disease and confidence about vaccine efficacy. The HPM offers a framework by which these factors can come together to shape the practice of vaccination among older adults. By applying this model, the study systematically explores how cognitive and environmental factors shape elderly individuals' decisions to follow vaccination schedules.

Several studies have found the applicability of Nola Pender's HPM for health-promoting behavior, especially in preventive health. Studies on the adherence to influenza and pneumococcal vaccination among older adults have utilized the HPM to examine how self-efficacy, trust in healthcare providers, and perceived barriers influence the decision to get vaccinated (Gault et al., 2019). Additionally, a study in community health nursing utilized the HPM to assess vaccination adherence among rural elderly populations and found that educational interventions targeting perceived barriers and benefits influenced an improvement in the adherence rate (Menchaca, 2024). Another study applied the HPM to explore adherence to COVID-19 vaccination among pregnant

women, focusing on how individual characteristics, perceived benefits, barriers, and self-efficacy influence health-promoting behaviors.

These studies highlight the relevance of Pender's HPM in guiding interventions for enhancing vaccination rates, hence becoming a relevant theoretical framework for this study. Participation in health promotion activities is influenced by factors such as one's cognition, experience, family, society, and culture (Hsuan-Hui & Pei-Lin, 2021). This study employs a model that explains how these factors interrelate in the formulation of elderly vaccination adherence.

Conceptual Framework

In this study, elderly individuals aged 60 and above, regardless of their religious affiliation, seek to understand how various factors influence their decisions to receive vaccinations. The framework identifies three main variables: enablers, barriers, and adherence. This will examine the factors that make it easier to get vaccinated, the challenges that prevent vaccination, and whether individuals actually go through with getting their shots. This framework aims to provide a structured approach for investigating how these elements interact and influence vaccination behavior in older adults.

Respondents' Perceived Enablers to Vaccination. The factors that will enable and encourage older adults to receive their vaccinations are known as enablers. It could include factors such as convenient vaccine access, reliable information, or encouragement from family members and healthcare providers (Utami et al., 2022). On the other hand, in the context of this study, enablers refer to individual, interpersonal, and systemic factors that enable older adults to obtain their vaccines and accept them easily (Tong et al., 2024). These

include trust in healthcare providers, health literacy and education, perceived vulnerability to disease, the availability of vaccines, such as vaccination sites close to their homes, financial support for vaccination, and encouragement from family members or community programs. Studies suggest that the enablers are mainly practical in communicating vaccine benefits and reducing health-related concerns (Dutta et al., 2021). When older adults are educated about pneumococcal and influenza vaccines, they are more likely to receive free or reduced-cost vaccinations offered in community-based programs, and outreach efforts targeting older populations have increased vaccine adherence.

Trust in Healthcare Providers: Trust plays a vital role in vaccine acceptance among older adults. It was one of the key facilitating factors that had a positive impact on the behaviors and decision-making of older people towards vaccination. It recognizes that if older people trust the competence, honesty, and intentions of their healthcare providers, they are more likely to follow medical advice, such as adhering to vaccines. By assessing this construct, the study aims to determine whether a higher level of trust serves as an enabler to vaccine uptake in the elderly population. Studies suggest that elderly individuals with strong relationships to their healthcare providers are more likely to adhere to vaccination recommendations (Sapienza & Falcone, 2022). Healthcare providers are the primary source that the elderly rely on for clear clarification, especially regarding vaccines such as pneumococcal and influenza, which protect them from severe illness (Arbaje et al., 2019). It is through trust that older adults can freely discuss and receive reassurance about concerns regarding vaccine safety and effectiveness. This construct will be included to

ensure all aspects of how trust influences vaccination behavior are addressed and support efforts to enhance adherence in older adults.

Health Literacy and Education: In this study, health literacy and education refer to the ability of older people to access, understand, make informed decisions, and utilize health information effectively, enabling them to make educated choices regarding vaccination and overall healthcare. It was also some of the key improvements that can enhance vaccination adherence among older adults (Stormacq et al., 2020). This will equip individuals with the knowledge of how pneumococcal and influenza vaccines can benefit them, as well as the risks involved, so that they can make informed decisions about their health. By assessing this construct, the study aims to understand how it helps or hinders older adults in getting vaccinated. This can guide efforts to better support their needs, build trust, and make vaccination easier and more comfortable for them. According to Mott et al. 2019), older adults with greater health literacy will understand the relevance of vaccination and comply more readily with recommendations. Education helps eliminate myths, reduces fear, and builds confidence in vaccine safety and efficacy. It emphasizes health literacy to promote vaccination adherence and address the challenges faced by older adults in vaccination programs.

Perceived Vulnerability to Disease: Perceived vulnerability to disease appears to be a significant motivator of vaccination compliance among older adults (Doornekamp et al., 2020). The more an older adult perceives a risk to their health from infectious diseases, the greater their recognition of the need for adherence to guidelines regarding vaccination. As Mullen et al. (2019) stated, such a belief motivates preventive health practices, including

vaccination. However, vaccinations in the elderly present their own challenges due to uncontrolled immunosenescence, inflammaging, and comorbid diseases, which will cause a low response to vaccines. (Fulop et al., 2022). This construct highlights the awareness of personal health risks and the drive towards adherence, which is crucial in identifying strategies that can help improve vaccination rates among older adults.

Respondents' Perceived Barriers to Vaccination are factors that hinder or prevent the elderly population from adhering to recommended vaccination schedules (Bach et al., 2019). These can include physical, psychological, social, or environmental obstacles that make vaccination less accessible or less appealing. Fear of side effects, misinformation, or misperceptions of vaccine safety can constitute a significant barrier, particularly to an age group with higher levels of health anxiety (Duradoni et al., 2024). Other barriers could include physical accessibility issues, such as being unable to travel to vaccination sites or the cost of purchasing vaccines. Cultural or religious beliefs may also contribute to vaccine hesitancy or refusal (Senee et al., 2022). Older adults are also less likely to adhere to required immunizations due to limited access to healthcare, whether clinics are understaffed or outreach efforts are insufficient.

Misinformation and Fear: Misinformation and fear are the most significant barriers to vaccination adherence among older adults. The term refers to the presence of false, misleading, or misinterpreted information regarding vaccines, which generates fear, doubt, and resistance to vaccination. Among older people, misinformation often originates from various sources, including word of mouth, social media networks, group beliefs, or even previous adverse experiences with healthcare systems. This study aims to understand how

these concerns affect their decisions. According to Sperber et al. 2019), misinformation, whether spread through media or word of mouth, can create doubts regarding vaccine safety and efficacy. These fears discourage vaccination and hinder public health efforts (Fisk,2021). Including this construct is crucial to understanding how misinformation influences vaccine hesitancy and addressing it through targeted education and communication strategies.

Access to Healthcare: In this study, access to healthcare refers to the ability of elderly individuals to reach and use health services when needed, including vaccination. It is used to describe the physical, financial, and systemic barriers that hinder older people from accessing recommended vaccines. These barriers include restricted availability of vaccine services, excessive travel distances to health facilities, and a lack of transportation to vaccination sites, which are significant obstacles for elderly individuals (Bentz et al., 2019). Furthermore, unawareness of vaccination programs and clinic locations is also a significant barrier to accessing these services. It helps address physical obstacles, allowing vaccine adherence to increase and ensuring older people have fair access to healthcare services.

Cultural and Social Beliefs: Cultural attitudes toward vaccination and the influence of social networks can either discourage or promote the uptake of vaccines. Some elderly individuals may be hesitant due to cultural beliefs or peer pressure (Rosenstock et al., 2021). This construct is being included in the study to appreciate the influence of social and cultural factors and understand how they can be leveraged or addressed to enhance compliance among older adults.

Respondents' level of Adherence to Vaccination. It is a measure of how well older adults adhere to the vaccination schedule recommended for their age group. This applies to both the initial dose of vaccine and any subsequent booster doses. Adherence to vaccines, such as the pneumococcal and influenza shots, can significantly lower the incidence of preventable diseases among older adults (Thomas, 2021). A high adherence level would indicate a population that is aware of the health benefits of vaccines, has access to necessary resources, and feels supported in making vaccination decisions. Regular vaccination campaigns are advised in senior centers and barangays to enhance accessibility. Develop clear, culturally sensitive content to effectively communicate the benefits of vaccines. Educate healthcare workers to address concerns and build trust. Offer home vaccinations for elderly individuals with mobility challenges. Partner with media and community leaders to distribute reminders and reliable information. These actions can reduce barriers, boost enablers, and increase vaccination compliance among elderly individuals. Enablers and barriers of adherence are closely related, and if enablers such as family support and healthcare access are optimized, elderly individuals are more likely to adhere to vaccination guidelines. (Amwoma et al., 2023). Additionally, factors such as educational level, place of residence, confidence in vaccine safety, perception of disease risk, and awareness of the importance of influenza vaccination impact vaccine hesitancy in elderly individuals (Hou et al., 2022). Indeed, if there are barriers to be overcome, such as misinformation or physical challenges, then adherence may be very low (Bach et al., 2019). By exploring how these factors affect elders' decisions to get vaccinated, this study aims to provide insights into improving vaccination rates among the elderly population.

Timeliness of Vaccination: Adherence is not only about receiving vaccines but also about receiving them at the appropriate time. Delayed vaccination or incomplete vaccination schedules can reduce effectiveness (Janusz et al., 2021). To support this, the Department of Health (DOH) mandates that individuals aged 60 years and older be prioritized and encouraged to receive vaccines, particularly influenza and pneumococcal vaccines, under the national immunization program for older adults. It is essential to ensure timely vaccinations for the elderly to prevent outbreaks of disease, reduce hospitalizations, and promote healthy aging among Filipinos. This construct emphasizes the importance of adhering to the recommended vaccination schedule, which ensures complete protection for older adults. It is helpful in identifying barriers to timely vaccination and enhancing strategies for improving adherence among older adults (Bach et al., 2019).

Repeat Vaccination: In many cases, the elderly require booster shots or annual vaccines (e.g., flu and pneumonia vaccines). It measures how older adults adhere to recommended vaccination schedules, which include receiving booster shots and yearly vaccines to maintain ongoing protection against infectious diseases. Maintaining adherence over time is important for continuous protection against infections (Williams et al., 2020). Including this construct, it is evident that sustained vaccine adherence over time is necessary, and the elderly must remain protected from preventable diseases through regular updates to their vaccination schedules (Coll et al., 2020). Aging reduces antibody responses to both influenza virus and vaccines, highlighting the importance of annual influenza vaccination for elderly individuals (Fraska et al., 2020).

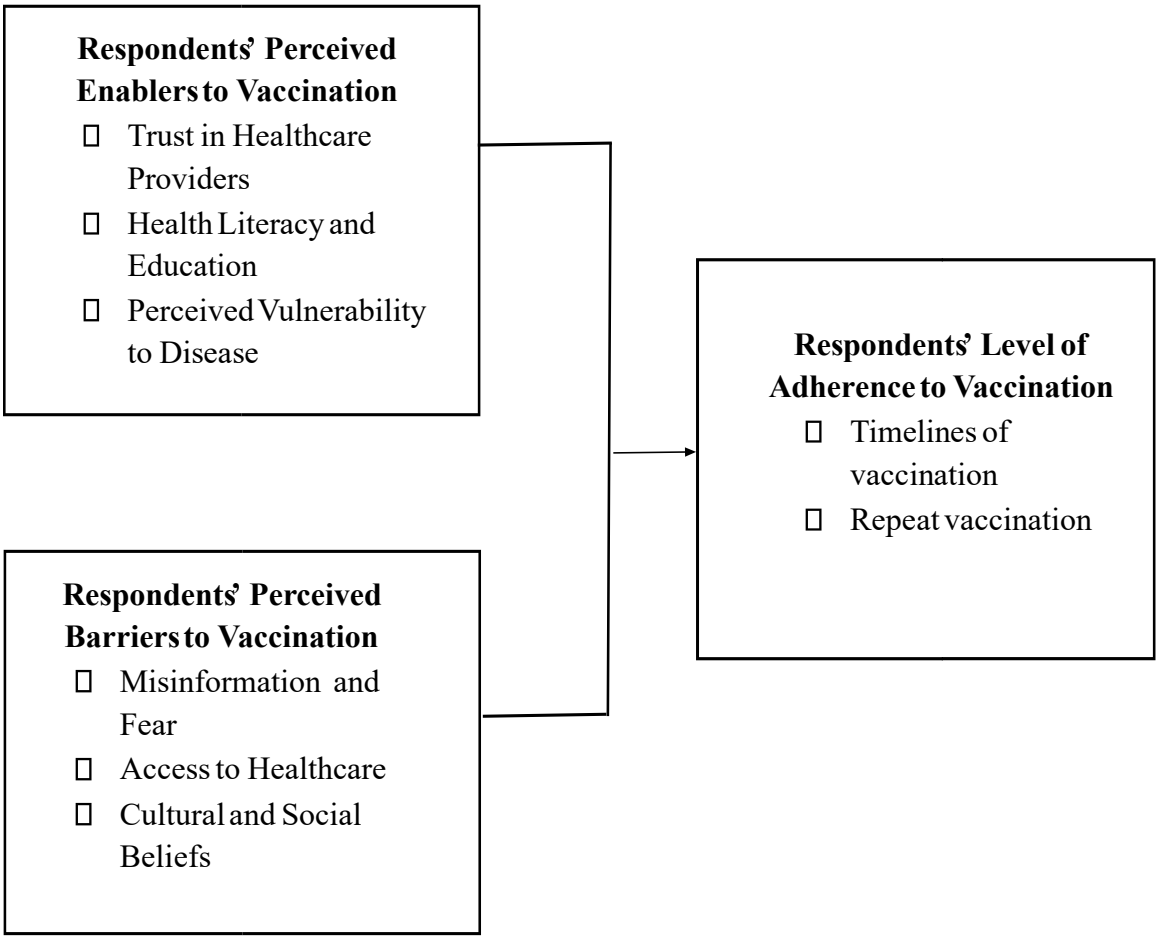

Figure 1: Schematic Diagram of the Study

Objectives of the Study

The study aimed to explore and determine enablers and barriers to vaccination adherence among older adults. By understanding the factors that either supported or hindered vaccine adherence.

The study sought to answer questions such as the following:(1) Identify the respondents' perceived enablers to vaccination in terms of trust in healthcare providers, health literacy and education, and perceived vulnerability to disease. (2) Identify the respondents' perceived barriers to vaccination in terms of misinformation and fear, access to healthcare, and cultural and social beliefs. (3) Assess the respondents' level of adherence to vaccination in terms of the timelines of vaccination and repeat vaccination. (4) Explore the significant relationship between the respondents' perceived enablers and adherence to vaccination. (5) Explore the significant relationship between the respondents' perceived barriers and adherence to vaccination.

It is hypothesized that (Ho1) there is no significant relationship between the respondents' perceived enablers and adherence to vaccination, and that (Ho2) there is no significant relationship between the respondents' barriers and adherence to vaccination.

Significance of the Study

The findings of this study will provide valuable insights into the level of adherence of elderly residents in Tangub City to vaccination programs and identification of barriers and enablers that affect their protection from diseases, as well as management of comorbidities.

Elderly Population. For older adults, this study provides valuable insights into the factors that influence their decision to adhere to vaccination programs. By identifying the enablers and barriers, the study can help improve vaccination uptake and ultimately

enhance the health and well-being of older adults, reducing their vulnerability to vaccine-preventable diseases. It also serves as a basis for designing more accessible and age-friendly health interventions.

Community Health Officers (CHO). This research will assist CHOs in Understanding the unique challenges and motivators for elderly vaccination. The findings will guide the development of tailored interventions and vaccination campaigns that are more effective in reaching and educating the elderly population. Additionally, it will help CHOs identify where they need to focus their efforts to address gaps in awareness or access to vaccines.

Local Government Units (LGU). For LGUs, this study will provide data that can be used to inform local health policies and strategies to increase vaccination coverage among older adults. By understanding the barriers and enablers in the local context, LGUs can allocate resources more efficiently and implement more effective health communication campaigns that resonate with the elderly community.

Department of Health (DOH). This research will support the Department of Health in refining its national vaccination policies by providing insights into the ground-level realities of elderly vaccination practices in both rural and urban communities. The results can be utilized to strengthen the DOH's Elderly Health Program, inform the formulation of age-sensitive health policies, and assess the impact of current vaccine campaigns. It also helps facilitate the DOH's overall mission of preventing disease, promoting health, and ensuring universal access to healthcare among elderly citizens.

Nurses. Nurses, who play a crucial role in patient education and vaccine administration, will benefit from this study's findings by gaining a deeper understanding of

the factors that influence adherence to vaccination among the elderly. This knowledge can guide nurses in providing more personalized care, addressing specific concerns, and promoting vaccine uptake among their elderly patients.

Researchers. This study contributes to the broader body of research on vaccination, particularly in vulnerable populations such as older adults. It will provide a foundation for future studies on vaccination behavior, health intervention strategies, and the intersection of aging and health policy. Additionally, the research may prompt further investigation into the cultural, social, and environmental factors that affect vaccination adherence in older adults.

This study's results will provide practical, actionable insights that can be applied across various sectors to enhance vaccination rates, mitigate health risks, and contribute to improved public health outcomes for the elderly population.

RESEARCH METHODOLOGY

Design

This study used a quantitative, descriptive correlational design to determine the relationships between enablers, barriers, and adherence to vaccination among older adults. This type of design allows researchers to measure how things naturally correlate with the environment without being manipulated. Data were collected statistically and were also quantitatively described, allowing for the determination of the strength and direction of the relationship. This design would consider the enablers, such as trust in healthcare providers and health literacy, as well as the barriers, including access issues and misinformation, as factors affecting vaccination adherence. Such a design is able to ascertain whether the enablers enhance adherence or if barriers deter it. In identifying such relationships, the study aimed to inform ways of improving vaccination rates among the elderly population. During our research, we identified the following key points. An urban area characterized by larger and more densely populated areas, with the presence of various establishments, and where access to facilities and services is greater compared to rural areas, which are less populated and have limited resources.

Environment

The study was conducted in selected rural and urban barangays in Tangub City, Misamis Occidental, Philippines, to examine the enablers, barriers, and adherence to vaccination among older adults. In rural areas, the researchers examined enablers such as community trust and social support, as well as barriers including limited healthcare access and transportation challenges, and how these factors influenced vaccination adherence. In urban areas, the focus was on enablers, such as the availability of healthcare services and

awareness campaigns, as well as on barriers, including misinformation and overcrowded facilities, and their impact on adherence. The comparison of rural and urban contexts revealed how these variables differed and intersected in shaping vaccination behaviors. The dual-setting approach provided in-depth information on how enablers and barriers affected adherence, enabling the development of appropriate strategies tailored to each community's needs.

Respondents of the Study/Unit of Analysis and Sampling Procedure

The research respondents included elderly individuals aged 60 years and above who reside in the community and are willing to participate in the study, regardless of gender, religion, ethnicity, socioeconomic status, or comorbidities. The sampling procedure used in the study will be stratified-random sampling. For every elderly population divided into ten strata: Code A, B, C, D, E, F, G, H, I, and J, from which respondents are randomly selected. The sample size of 204 respondents was calculated using the Raosoft sample size calculator, with a 95% confidence level and a 5% margin of error.

Data Gathering Instruments

The researchers used a researcher-made questionnaire, specifically developed for this study, which consisted of three parts.

A. *Respondents' Perceived Enablers to Vaccination Questionnaire.* This section addresses factors that encourage adherence to vaccination. It contains three constructs, namely: trust in healthcare providers, health literacy and education, and perceived vulnerability to disease. It is a 5-point Likert Scale with the following responses: 5 Strongly Agree; 4 - Agree; 3 – neutral; 2 - Disagree; 1 - Strongly Disagree.

B. *Respondents' Perceived Barriers to Vaccination Questionnaire.* This section addresses challenges that prevent vaccination. It contains three constructs, namely: access to healthcare, misinformation and fear, and cultural and social beliefs. It is a 5-point Likert Scale with the following responses: 5 - Strongly Agree; 4 - Agree; 3 – Neutral; 2 Disagree; 1 - Strongly Disagree.

C. *Respondents' Level of Adherence to Vaccination Questionnaire.* This section focused on measuring how well the elderly population follows vaccination recommendations, as well as a yes/no question on vaccination status, assessing how enablers and barriers affect adherence and health outcomes. It is a 5-point Likert Scale with the following responses: 5 - Strongly Agree; 4 - Agree; 3 – neutral; 2 - Disagree; 1 - Strongly Disagree.

Data Gathering Procedure

A researcher-made questionnaire was used to collect data on enablers, barriers, and adherence to vaccines among aged populations. The researchers requested a research permit from the Dean of the College of Nursing, Midwifery, and Radiologic Technology to conduct the study outside the campus. The researchers will obtain approval from the Barangay Captain of the barangay and the office in charge of the barangay health center to conduct the study in their community. After the permission was granted, the researchers coordinated with the Barangay Health Workers to access the list of elderly individuals residing in their barangay. These are the vaccinated and non-vaccinated elderly individuals. The respondents were informed about the purpose and objectives of the study, and a consent form was duly provided to them, confirming their voluntary participation in the study. It

was ensured that the respondent's responses would be treated with strict confidentiality and their identities would remain anonymous.

The questionnaire was translated into the native language of Tangub City, which is Cebuano/Visayan, to ensure comprehension among the respondents. As a guarantee, the researchers assured the respondents that the data gathered for the study would be used only for that study. The study was entirely voluntary, and the subjects were informed that they were free to withdraw from the study at any time without any repercussions. To gain the respondents' cooperation, the researchers distributed the questionnaire to them individually.

Validity and Reliability of the Instrument

The questionnaire was reviewed and validated by a panel of experts to ensure its relevance to the study's objectives. Pilot testing was conducted among 20 senior citizens who were not part of the study, selected from other urban and rural barangays, to help assess the reliability of the instrument. Cronbach's alpha of 0.7 for each section was used to measure the reliability of the questionnaire: enablers, barriers, and adherence to vaccines. The result showed a Cronbach's alpha of 0.97, which is significantly above the acceptable threshold of 0.7, indicating excellent internal consistency. An acceptable value for Cronbach's alpha indicates that the items demonstrate good internal consistency and reliability. Expert evaluation and pilot testing ensured that the instrument was both valid and reliable in assessing the degree of enablers, barriers, and adherence to vaccines among the elderly population.

Scoring Guidelines

The first, second, and third part of the researcher-made questionnaire was assessed based on the continuum as follows:

The questionnaire was divided into sections to measure the enablers, barriers, and vaccine adherence. The responses were evaluated using the following scoring scales.

A. Respondents' Perceived Enablers to Vaccination Questionnaire. In assessing the enablers that encourage vaccination, the following scale will be used:

Weight	Responses	Continuum	Interpretation
5	Strongly Agree	4.21 - 5.0	Very High
4	Agree	3.41- 4.20	High
3	Neutral	2.61- 3.40	Moderate
2	Disagree	1.81- 2.60	Poor
1	Strongly Disagree	1.00- 1.80	Very Poor

B. Respondents' Perceived Barriers to Vaccination Questionnaire. In assessing the barriers to vaccination, the following scale will be used:

Weight	Responses	Continuum	Interpretation
5	Strongly Agree	4.21 - 5.0	Very High
4	Agree	3.41- 4.20	High
3	Neutral	2.61- 3.40	Moderate
2	Disagree	1.81- 2.60	Poor
1	Strongly Disagree	1.00- 1.80	Very Poor

C. **Respondents' Level of Adherence to Vaccination Questionnaire.** In assessing the level of adherence to vaccination, the following scale will be used:

Weight	Responses	Continuum	Interpretation
5	Strongly Agree	4.21 - 5.0	Very Good
4	Agree	3.41- 4.20	Good
3	Neutral	2.61- 3.40	Moderate
2	Disagree	1.81- 2.60	Poor
1	Strongly Disagree	1.00- 1.80	Very Poor

Mode of Analysis/ Statistical Treatment

The data gathered from the questionnaire were tabulated, analyzed, and interpreted by making use of suitable statistical tools as follows:

Mean and Standard Deviation were calculated to determine the central tendency and variability of the elderly respondents' levels of enablers, barriers, and adherence to vaccination. These statistical tools were used to summarize and describe how the respondents answered the items related to trust in healthcare providers, health literacy and education, perceived vulnerability to disease, misinformation and fear, access to healthcare, cultural and social beliefs, timelines of vaccination, and repeat vaccination, providing a clearer picture of the overall trends and consistency of their experiences. Specifically, the mean and standard deviation measured how older adults perceived these factors in relation to their vaccination behavior, allowing the researchers to identify whether there were consistent patterns or variations in enablers, barriers, and adherence levels among the respondents.

Pearson's r correlation coefficient was used to assess the significant relationships between enablers and barriers and adherence to the vaccine among older adults. This statistical analysis was performed to determine the strength and direction of the relationships between these variables, helping to assess whether a greater presence of enablers or barriers was associated with higher levels of vaccination adherence. The results provided insights into how factors such as trust in healthcare providers, access to vaccines, and personal health beliefs contributed to or hindered older adults' willingness to get vaccinated.

Ethical Consideration

The researchers ensured the protection of human dignity by maximizing benefits and minimizing potential harm to elderly respondents. The study focused on understanding the enablers and barriers to vaccination, as well as adherence among older adults. The researchers took all necessary precautions to prevent physical, emotional, or psychological harm during the study. A safe and respectful research environment was maintained at all times. Responses were kept confidential, and the personal details of respondents were anonymized to protect privacy. Data were archived and destroyed five years after the study was completed to ensure that the welfare of respondents was protected.

To preserve justice, the researchers provided respondents with clear information about the study's purpose, potential risks, and benefits, ensuring their protection. A letter of informed consent was provided, enabling participants to make well-informed decisions about their participation. They were given sufficient time to decide and were assured that their participation was entirely voluntary. Subjects can withdraw from the study at any time

without incurring any negative consequences. Their rights towards privacy, autonomy, and confidentiality were upheld through each phase of the study.

Through good beneficence, researchers strived for fairness during selection and representation. Stratified random sampling was employed, where older people are represented and selected from the different Puroks of selected barangays in Tangub City, without any bias toward a given group. This process should be free of bias, prejudice, or prejudices/discrimination. Therefore, this study has the merits and benefits that could contribute to more effective vaccination strategies and a better healthcare system tailored to elderly populations. This approach reflects their commitment to protecting the dignity, rights, and well-being of all respondents while advancing public health outcomes.

RESULTS AND DISCUSSION

Respondents' Perceived Enablers to Vaccination

Table 1 presents the respondents' perceived enablers to vaccination among the elderly, focusing on three key constructs: trust in Healthcare Providers, Health Literacy and Education, and Perceived Vulnerability to Disease. The overall mean score is 3.89, and the standard deviation is 1.02, indicating that, on average, respondents reported high enablers to vaccination, based on the provided interpretation scale. The mean indicates that the enabling factors generally have positive impacts on older adults' willingness to comply with vaccination. The standard deviation, however, indicates a moderate level of variation in the response, meaning that while most elderly individuals are aware of these enablers, there are some variations, perhaps due to personal experiences or the availability of health resources.

Trust in Healthcare Providers. The trust in healthcare providers had the highest overall mean of 4.06 and a standard deviation of 1.02, falling within the high range. It suggests that most elderly respondents are likely to trust healthcare providers in decision-making regarding vaccinations. The score, however, did not reach the very high score, suggesting that there is trust, but perhaps not absolute or complete, in everyone. Negative past experiences, poor communication, or disagreements on opinions about vaccines might have contributed to the lower scores. The standard deviation of 1.02 suggests a moderate degree of variability, indicating that the responses were quite dispersed; some individuals may have scored very high in trust, while others were less so or even hesitant. This dispersion suggests the need to further enhance provider-patient relationships and improve the transparency of health communication.

Healthcare provider trust is also an essential factor in influencing vaccination adherence among older adults, with evidence repeatedly reporting broadly high but not necessarily absolute levels of trust. For example, recent evidence suggests that although older adults generally report high levels of confidence in their healthcare providers, certain factors,, such as adverse healthcare experiences and communication difficulties,, can moderate the extent of this trust, preventing it from reaching the highest levels (Smith et al., 2022). Additionally, variations in levels of trust are typically associated with vaccine-specificvaccine-specific differences and transparency of information, which highlights the need for differentiated communication strategies to support provider-patient relationships (Johnson & Lee, 2021). The results concur with previously observed moderate variation in trust scores, indicating that increasing dialogue and concerns could further maximize elderly patient vaccination adherence.

Health Literacy and Education. The health literacy and education had a mean of 3.83 and a standard deviation of 1.04, both of which fall in the high range. This suggests that the elderly sample in the study overall has sufficient knowledge and awareness of vaccination, including its benefits and potential side effects. The fact that the score was not in the very high range could be a reflection of knowledge gaps in educational material, aging-related cognitive decline, or exposure to erroneous information. The 1.04 standard deviation suggests a moderate range of variability in responses, indicating that while some elderly respondents are sufficiently well-informed, others may face challenges in processing health information or navigating healthcare systems. This suggests a need for more accessible and targeted health education interventions among elderly groups.

This construct reflects a fairly good understanding of vaccination, that is, its benefits and side effects. Yet, this score falling short of a very high level indicates ongoing issues, including insufficient access to individualized learning materials, age-related cognitive impairment, and the impact of disinformation (Lee & Park, 2023). The moderate level of variability in responses suggests differences within the elderly population, where some members are well-educated, while others struggle to understand health information or access healthcare effectively. These results underscore the need for more targeted and accessible health education interventions specifically designed to meet the unique needs of older adults (Johnson & Martinez, 2020).

Perceived Vulnerability to Disease. The perceived vulnerability to disease had a mean of 3.79 with a standard deviation of 1.01, and is also in the high range. This suggests that older adults tend to perceive themselves as vulnerable to diseases such as the flu or pneumonia, for which they have received vaccinations. However, this is not particularly high, and it could be due to a sense of invincibility in a few, an underestimation of health risks, or a belief in natural cures or past immunity. The standard deviation of 1.01 is indicative of a moderate range of variability. Thus, although most perceive themselves to be vulnerable, others may not perceive themselves as being at high risk, which could have implications for vaccine adherence. This requires targeted health risk communication to create awareness and a sense of urgency among older adults who are less concerned about the issue.

Nola Pender's Health Promotion Model prioritizes and emphasizes the role of individual characteristics, perceived benefits, and interpersonal influences in motivating health behaviors. The high ratings in Table 1 for trusting healthcare providers, health

literacy, and perceived vulnerability are supported by Pender's theory of perceived benefits of action and interpersonal influences, which are preeminently associated with motivation toward health-promoting behaviors, such as vaccination. Elderly who have confidence in health workers and are well-educated are better placed to participate in prevention care due to the fact that they view vaccination as positive and backed by quality relationships. Pender explains that these enablers are positive forces that promote more chances of vaccine adherence, making it important to expand personal knowledge and support systems in promoting healthy aging.

Table 1: Respondents' Perceived Enablers to Vaccination

(n=204)

Enablers to Vaccination	Mean	StDev	I
Trust in Healthcare Providers	4.06	1.02	H
Health Literacy and Education	3.83	1.04	H
Perceived Vulnerability to Disease	3.79	1.01	H
Overall Mean	**3.89**	**1.02**	**H**

Legend: *4.21- 5.00 – Very High (VH)*
3.41- 4.20 – High (H)
2.61- 3.40 – Moderately High (MH)
1.81- 2.60 – Poor (P)
1.00- 1.80 – Very Poor (VP)

Respondents' Barriers to Vaccination

Table 2 presents the perceived barriers to vaccination among older adults, categorized into three constructs: Misinformation and Fear, Access to Healthcare, and Cultural and Social Beliefs. The overall mean score is 3.45, with a standard deviation of 1.07, indicating that respondents perceived their barriers to vaccination at a high level, based on the interpretation scale. This suggests that elderly individuals recognize these factors as meaningful influences on their vaccination decisions. The mean in the high but not the very high category indicates that, although most elderly individuals face challenges, others may have a better support system, access, or understanding of vaccines. The standard deviation of 1.07 indicates moderate to relatively high variability, indicating that the respondents' perceptions of barriers are diversely distributed. This diversity indicates the range of challenges faced by the elderly and warrants context-specific interventions to address individual, social, and structural barriers to vaccination.

Misinformation and Fear. The misinformation and fear had an overall mean score of 3.34 with a standard deviation of 0.96, which falls within the moderately high range on the interpretation scale. This indicates that,, although misinformation and fear do contribute to some degree to the decision-making process regarding vaccination among older respondents, these issues are not prevalent. The slightly less than other barriers may be an indication of partial health campaign effectiveness or the presence of confidence in healthcare information among some participants. The 0.96 standard deviation is indicative of low to moderate variation, indicating that responses were fairly uniform, with most respondents having about the same level of concern regarding misinformation and fear. Yet, the result indicates that fear-based conceptions and misinformation about vaccines continue

to be a moderate barrier that requires ongoing health education and targeted communication.

The moderately high average score and comparatively low variation in worries regarding misinformation and dread among older respondents are consistent with research that high levels of trust in science and perceived susceptibility to disease strongly forecast vaccination attitudes in older individuals (Plohl & Musil, 2021). Despite partial success with public health communication, misinformation remains a persistent stumbling block that requires frequent, focused communication, as adherence to vaccination among older adults is driven by psychosocial determinants such as fear and misinformation (Roberts et al., 2020). These studies highlight the importance of ongoing health education in addressing moderate yet persistent concerns about vaccine misinformation and fear among older adults.

Access to Healthcare. The access to healthcare was measured at a mean of 3.47 and a standard deviation of 1.10, indicating a high rating. This suggests that older respondents are significantly experiencing barriers, including distance to health facilities, transportation issues, unaffordability, and a lack of services. The measure not reaching the "Very High" range suggests that such detriments, although occurring, are not extreme for everyone, perhaps due to government immunization programs or local health campaigns, which reduce the issue for some. The 1.10 standard deviation equates to a moderate to high level of variability in responses; that is, while some older individuals face extreme access issues, others may have comparatively easy access. This variation highlights the unequal distribution of healthcare infrastructure and underscores the need to target high-risk or underserved groups through home-based care and mobile clinics.

Elderly vaccination adherence is often hindered by barriers such as cost issues, a lack of healthcare provider recommendations, and limited access to vaccination services, with these barriers differing considerably by demographic factors, including level of education, rural dwelling, and racial origin (Fuller et al., 2024). Moreover, attitudinal determinants such as self-efficacy and perceived awareness of vaccine-preventable diseases positively affect vaccine adherence, highlighting the need for targeted education and provider interaction to enhance vaccination rates among elderly individuals. Structural barriers, such as inadequate insurance coverage and high costs, continue to be key challenges, particularly for at-risk populations, underscoring the need for policy interventions to narrow these gaps (MacDonald et al., 2022).

Cultural and Social Beliefs. The cultural and social beliefs had a mean of 3.53 and a standard deviation of 1.14, which is also high. This suggests the importance of cultural values, social influences, and religious practices in shaping the attitudes of the elderly towards vaccination. The fact that the score is below the very high level suggests that, while beliefs are significant, they are not necessarily constraining for all participants; some possess neutral or even positive cultural values towards vaccination. The high standard deviation of 1.14 points towards the dispersion of scores. This highlights the cultural diversity among the elderly and underscores the need for health promotion interventions that are culturally sensitive and respectful of individual beliefs, while providing accurate vaccination information.

The role of cultural norms, social attitudes, and misinformation in influencing vaccine adherence among older adults has been well described, with social isolation, fear of adverse events, and misconceptions about vaccine effectiveness playing fundamental

roles in determining vaccination choices (Archbald-Pannone, 2025). These psychological and social determinants differ between demographic groups and underscore the need for culturally adapted, targeted intervention to maximize vaccination among the elderly.

Table 2: Respondents' Perceived Barriers to Vaccination

(n=204)

Barriers to Vaccination	Mean	StDev	I
Misinformation and Fear	3.34	0.96	MH
Access to Healthcare	3.47	1.10	H
Cultural and Social Beliefs	3.53	1.14	H
Overall Mean	**3.45**	**1.07**	**H**

Legend: *4.21- 5.00 – Very High (VH)*; *3.41- 4.20 – High (H)*; *2.61- 3.40 – Moderately High (MH)*; *1.81- 2.60 – Poor (P)*; *1.00- 1.80 – Very Poor (VP)*

Respondents' Adherence to Vaccination

Table 3 presents the vaccination adherence status of elderly respondents based on two primary constructs: timeliness of vaccination and repeat vaccination. The total mean score is 3.58, with a standard deviation of 1.15, which corresponds to a good rating according to the scale used in the study. This suggests that elderly respondents tend to adhere to recommended vaccination schedules and are likely to return for follow-up doses if necessary. But since the mean does not fall in the very good score, it implies that there are still gaps in complete compliance, perhaps due to sporadic forgetfulness, inability to access, or failure to remind. The standard deviation of 1.15 is indicative of a fairly high degree of variability, so while most respondents show satisfactory adherence, some fail to keep up, either putting off or missing their vaccinations. This variability highlights the need

to enhance follow-up mechanisms and individualized health support systems, promoting more regular and timely vaccination behavior among older adults.

Timeliness of Vaccination. The timeliness of vaccination had a mean score of 3.57 and a standard deviation of 1.15, indicating a good level of timeliness. This suggests that most elderly respondents can access their vaccines in the desired time frame, manifesting a generally responsible approach to vaccination. The rating, however, did not extend to the very good category, meaning that while adherence exists, it is not ideal. Delays may be caused by factors such as occasional forgetfulness, unclear scheduling, transportation problems, or failure to follow up from health providers. The high variability is evident in the standard deviation of 1.15, indicating a significant difference in responses. Some elderly people consistently adhere to vaccination schedules, whereas others might miss or delay doses. This deviation highlights the need for more effective reminder systems and improved accessibility to ensure consistent vaccine coverage on schedule.

The variability in timely vaccination among older adults is influenced by several factors, including mobility issues and varying recommendations from healthcare providers, which can lead to delays and omissions (Fuller et al., 2024). Demographic factors, such as lower educational levels, residence in rural areas, and financial issues, have also been identified as significant barriers to vaccine completion, underscoring the need for targeted interventions and improved accessibility to promote the timeliness of vaccination in this subgroup (Eiden et al., 2022).

Repeat Vaccination. The repeat vaccination had a mean score of 3.58 with a standard deviation of 1.15, which is also considered a good result. It indicates that older respondents generally follow up on or receive booster vaccinations when needed, which is

important for achieving long-term protection against diseases. Nevertheless, the fact that the rating does not fall within the very good range suggests that adherence is still not flawless. Reasons may be due to unawareness regarding the booster doses, a lack of communication with healthcare professionals, or anxiety regarding side effects from extra doses. The standard deviation of 1.15 indicates high variability in the responses since numerous elderly individuals do return for follow-up vaccinations, but some don't follow up. This disparity highlights the need for continued education, building trust, and accessible vaccine services to enhance adherence to vaccination.

Older adults' inconsistent adherence to repeat vaccination has been attributed to various factors, including low health literacy, skepticism about healthcare systems, and fear of vaccine side effects, which may destabilize booster dose acceptability despite overall knowledge of their necessity (Nguyen et al., 2023). Additionally, variation in vaccine adherence among older adults highlights the crucial role of customized communication strategies and healthcare provider recommendations in fostering trust and enhancing continuity in vaccine behavior (Garcia & Smith, 2021).

Table 3: Respondents' Level of Adherence to Vaccination

(n=204)

Adherence to Vaccination	**Mean**	**StDev**	**I**
Timelines of vaccination	3.57	1.15	G
Repeat vaccination	3.58	1.15	G
Overall Mean	**3.58**	**1.15**	**G**

Legend: *4.21- 5.00 – Very Good (VG)*; *3.41- 4.20 – Good (G)*; *2.61- 3.40 – Moderately Good (MG)*; *1.81- 2.60 – Poor (P)*; *1.00- 1.80 – Very Poor (VP)*

Significant Relationship Between the Respondents' Perceived Enablers and Adherence to Vaccination Among the Elderly.

Table 4 illustrates the significant relationship between perceived enablers, specifically trust in healthcare providers, health literacy, and education, and perceived vulnerability to disease, as well as adherence to vaccination among the elderly. Findings reveal that. A highly significant relationship exists between perceived enablers and adherence to vaccination among the elderly, with all p-values at 0.00 and strong correlation coefficients (r-values ranging from 0.781 to 0.829). It indicates that elderly individuals who trust their healthcare providers, report having higher health literacy, and perceive themselves as susceptible to the disease are more likely to be adherent to timely and repeated vaccinations. Strong associations, such as trust in healthcare providers and timely vaccination ($r = 0.799$), underscore the influence of healthcare providers in promoting vaccine uptake.

As reflected in the table, Trust in Healthcare Providers had a significant positive correlation with both timeliness for vaccination ($r = 0.799$) and repeat vaccination ($r = 0.795$). This implies that trust in health professionals, being informed about vaccination, and the perception of susceptibility to diseases might encourage the uptake of the recommended vaccination schedules among elderly individuals. According to Larson et al. (2022), healthcare provider recommendations are one of the most effective cues to action for elderly individuals, particularly when communication is clear, compassionate, and culturally relevant. When trust is established, elderly patients are more inclined to follow through with medical advice, reducing vaccine hesitancy and improving public health outcomes Dubé et al., 2021). According to the Health Belief Model, people are more likely

to engage in preventive health behaviors if they perceive their personal health as being at risk and believe that the intervention is effective.

Additionally, there was a strong correlation between timeliness and repeat vaccination, as well as health literacy education ($r = 0.829$, $r = 0.807$). This suggests that older adults who are aware of the benefits, side effects, and vaccination schedules are much more likely to get vaccinated and finish the recommended dosages. The strong correlation between vaccine uptake and health literacy supports earlier findings by Figueiredo et al. (2020), which highlighted that vaccine acceptance rises when justification for the vaccine's benefits and necessity is communicated.

Health Literacy and Education were closely associated with timely vaccination ($r = 0.829$) and repeat vaccination ($r = 0.807$). Accordingly, older adults who are well-informed about the advantages, risks, and timing of vaccinations are far more likely to receive them on time and complete all recommended doses. The robust correlation between vaccination adherence and health literacy validates earlier research by Figueiredo et al. (2020), who stressed that vaccine acceptance would improve when individuals understand the reasoning and benefits of immunization. Similarly, Karafillakis et al. (2022) observed that consistent, positive communication from health workers improves community confidence in vaccines. As Dubé et al. (2021) pointed out, elderly individuals frequently encounter barriers of digital and health literacy, which prevent them from accessing credible information, thereby posing strong justification for targeted educational campaigns. In addition, there was a strong correlation between perceived vulnerability to disease and both timely ($r = 0.791$) and repeat ($r = 0.781$) vaccination. This suggests that elderly individuals are more likely to prioritize vaccination when they perceive a risk to their health. This viewpoint aligns with

the Health Belief Model (HBM), which posits that individuals are more likely to take preventive measures if they perceive their health as being at risk. Rajkumar (2023) provides evidence to support this assumption, demonstrating that older adults who recognize their increased susceptibility to infectious diseases are more likely to adhere to vaccination schedules. Hence, it is essential to understand how healthcare messages can not only inform but also be personally meaningful for older adults MacDonald, N. E., 2021).

Overall, elderly individuals seek means of protecting themselves and subsequently prioritize vaccination when they perceive a risk to their health. This notion aligns with the Health Belief Model (HBM), which posits that individuals take action to promote their health if they perceive themselves as susceptible to a particular condition and believe it has serious consequences. In support of this assumption, Rajkumar (2023) demonstrates that elderly individuals who acknowledge their heightened vulnerability to infectious diseases tend to comply better with vaccination schedules. MacDonald (2021) argues that the successful tailoring of health communication to convey perceived susceptibility meaningfully has the potential to substantially influence health behavior among the elderly population.

Table 4: Significant Relationship Between Perceived Enablers and Adherence to Vaccination Among the Elderly

Variables	r-value	p-value	Remarks
Trust in Healthcare Providers and:			
Timelines of vaccination	0.799	0.00**	Reject Null Hypothesis
Repeat vaccination	0.795	0.00**	Reject Null Hypothesis
Health Literacy and Education:			
Timelines of vaccination	0.829	0.00**	Reject Null Hypothesis
Repeat vaccination	0.807	0.00**	Reject Null Hypothesis
Perceived Vulnerability to Disease and:			
Timelines of vaccination:	0.791	0.00**	Reject Null Hypothesis
Repeat vaccination	0.781	0.00**	Reject Null Hypothesis

Ho1: There is no significant relationship between perceived enablers and adherence to vaccination among the elderly.

*Legend: 0.00-0.01** Highly Significant, 0.02-0.05* Significant, above 0.05 Not Significant*

Significant Relationship Between the Respondents' Barriers and Adherence to Vaccination Among the Elderly

Table 5 showed the significant relationship between barriers to vaccination, specifically misinformation and fear, access to healthcare, cultural and social beliefs, and adherence to vaccination among the elderly, especially with respect to timeliness and repeat vaccination. The study revealed that all three barrier domains showed a high level of significance in their relationships with both aspects of vaccination adherence, with p-values of 0.00 across the constructs, which suggests that the elderly people could feel the need to adhere to vaccination schedules for the sake of increased

caution and alertness, prompted by the barriers. The findings suggest that greater exposure to misinformation, fear, lack of access to health resources, and cultural and social reasons do not necessarily lead to lower adherence to vaccination, but rather may prompt more thoughtful and hesitant action in the face of health protection through vaccination. This is consistent with the notion that perceived threats or risks may prompt health-protective behavior. According to the Health Belief Model, perceived severity and perceived susceptibility to illness can motivate health actions (Rosenstock, 1974).

Access to Healthcare was primarily associated with timelines of vaccination ($r = 0.893$) and repeat vaccination ($r = 0.906$), indicating that logistical and systems barriers are key to the elderly's adherence behaviors. Matters related to transportation affect the elderly more so than other age groups (Gonzales et al., 2022). Furthermore, economic constraints also determine access to vaccines (Lorini et al., 2018). Insufficient accessibility of service also worsens these issues (Nguyen et al., 2020). Similarly, cultural and social beliefs were found to be strongly correlated with vaccination adherence ($r = 0.892$ for both outcomes). Beliefs rooted in tradition can either support or deter vaccination efforts. This mistrust of modern medicine is well documented in elderly populations (Schmid et al., 2017). Community-level influences, including those of peers and families, are also strong determinants of the decision to vaccinate (Larson et al., 2023). Adapting health promotion interventions to these cultural contexts is imperative for overcoming such barriers (Martinez & Chu, 2021). This is consistent with evidence that culturally sensitive approaches to vaccination increase overall vaccine uptake.

Misinformation and fear showed a significant relationship with adherence ($r = 0.691$ for timelines of vaccination and $r = 0.685$ for repeat vaccination), although slightly lower

than the other variables. Spreading myths and conspiracy theories adversely affects vaccine confidence. The elderly are particularly at risk because they often experience difficulties with digital literacy (Nguyen et al., 2020). Public health messaging should be directed towards targeted and kind messaging for this age group (Wilson & Wiysonge, 2020). This supports previous work, which suggests that addressing misinformation is crucial for increasing vaccination rates (Larson et al., 2023).

Overall, as long as barriers exist, the perception of vulnerability among the elderly increases, leading to a more reasoned and cautious approach to vaccination. Instead of discouraging adherence, these barriers could serve as cues to action for protective performance. Therefore, rather than solely removing these barriers, health interventions need to address and utilize them when designing interventions, for example, through improved risk communication, addressing misinformation, and incorporating cultural sensitivity that emphasizes the value of vaccination.

The gaps could be closed, and confidence in vaccine trust can be established through interprofessional teamwork among all healthcare providers, community leaders, and the media (Martinez & Chu, 2021). Wilson and Wiysonge (2020) emphasize the importance of building trust through community engagement. All of these combined strategies can Significantly improve adherence among elderly individuals.

Table 5: Significant Relationship Between Perceived Barriers to Vaccination and Adherence to Vaccination Among the Elderly

Variables	r-value	p-value	Remarks
Misinformation and Fear: Timelines of vaccination	0.691	0.00**	Reject Null Hypothesis
Repeat vaccination	0.685	0.00**	Reject Null Hypothesis
Access to Healthcare and Timelines of Vaccination	0.893	0.00**	Reject Null Hypothesis
Repeat vaccination	0.906	0.00**	Reject Null Hypothesis
Cultural and Social Beliefs and Timelines of vaccination,	0.892	0.00**	Reject Null Hypothesis
Repeat vaccination	0.892	0.00**	Reject Null Hypothesis

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Based on the findings, the researchers were able to conclude the following:

1. The enabling environment plays a crucial role in shaping the attitudes of elderly people toward vaccination. Enablers such as trust in healthcare providers, health literacy, and education, as well as perceived vulnerability to disease, were all scored high, with an overall mean of 3.89 and a standard deviation of 1.02. This indicates that the elderly are typically enabled to adopt good vaccination practices. Although the enablers were not scored very highly, their presence remains essential. Strengthening these through communication, education, and trust-building activities can improve vaccine adherence among the elderly.
2. Understanding the barriers encountered by the elderly is crucial in effective vaccination strategies. Barriers such as misinformation and fear, lack of access to healthcare, and cultural and social beliefs were scored at a high level, having an overall mean of 3.45 and a standard deviation of 1.07, but not on the highest level. Even though the elderly are impacted by these barriers, the effect is highly variable among respondents. Indeed, older adults are better helped to overcome barriers, but others fail. Overcoming access and cultural barriers through effective communication and accessible services is key to preventing missed or delayed vaccinations.
3. Vaccination compliance in the elderly indicates both their functional capacity and willingness to complete health advice. The findings indicated a good level with an overall mean of 3.58 and a standard deviation of 1.15, with timeliness of vaccination and repeat vaccination constructs scoring similarly. These results suggest that the majority are willing to be vaccinated in a timely manner and receive follow-up doses.

Achieving consistent adherence takes more than upfront acceptance; it takes system support, education, and community outreach for routine adherence.

4. There is a significant relationship between the elderly's perceived enablers and their adherence to vaccination schedules. The elderly are more likely to receive timely and repeated vaccinations when they trust healthcare providers, have adequate health knowledge, and recognize their vulnerability to illness, justifying the need to improve vaccine adherence. In addition, there was a strong correlation between perceived vulnerability to disease and both timely ($r = 0.791$) and repeat ($r = 0.781$) vaccination. These findings highlight the necessity of elderly specific risk communication, health education, and trust-building methods to significantly increase adherence to vaccination.
5. There is a significant relationship between the elderly's perceived barriers and their adherence to vaccination schedules. All three categories of barriers showed a high level of significance ($p = 0.00$), suggesting that barriers may prompt cautious, reflective behavior rather than reducing compliance, and act as cues to protective action. This is further supported by Verger and Dubé (2020), who emphasized that increasing vaccination adherence in older adults requires not only accessible services but also the removal of socio-cultural and economic obstacles through inclusive, elder-sensitive health programs.

Recommendations

Based on the findings of this study, the researchers made the following recommendations:

1. Healthcare providers and Health educators are encouraged to enhance health education campaigns aimed at the elderly population, emphasizing the significance, safety, and benefits of vaccines. The campaigns should be prepared in a simple, easy-to-read language and in the local dialect to facilitate easy access among the elderly, especially those with limited literacy. Health educational materials should be culturally sensitive and appropriate for their age, addressing the concerns around misinformation and fear, which were scored as moderate barriers to vaccine adherence. Influential health care providers and local leaders must engage actively in the dissemination of standardized, evidence-based health information to foster confidence and trust in vaccines among theelderly.
2. Barangay health workers and public health authorities may focus on making vaccination services more accessible and convenient for elderly residents, particularly those living in rural areas or facing mobility issues. To address the barrier of limited healthcare access, health centers could offer home-based vaccination services and create special vaccination schedules just for senior citizens. Providing transportation assistance, cutting down wait times, and establishing vaccination sites closer to where elderly people live can really help increase vaccination rates and ensure timely doses.

3. Social and cultural factors must be taken into consideration in planning successful public health interventions because beliefs and traditions have been found to be barriers to vaccination compliance. To promote vaccine acceptance, the involvement

of family members, religious leaders, and elder community members is encouraged in advocacy. Health messages need to be incorporated into prevailing cultural practices and communal events to enhance acceptability and applicability. An approach based on the family, with caregivers trained and involved, can go a long way in helping older persons to makehealth-related decisions.

4. Local government units are encouraged to give policy assistance and allocate funds specifically for elderly vaccination programs. This involves budgeting for educational materials, transportation services, staff training, and outreach public health activities. Policies need to advocate sustainable vaccination services by guaranteeing continuous funding and assistance for elderly-friendly healthcare services. Offering incentives in the form of food packs, medical check-ups, or other minor perks in vaccination drives may also assist in drumming up participation, particularly among low-income elderly residents.

5. Nursing educators and nursing students are encouraged to incorporate elderly-centered vaccination education into their studies, specifically focusing on the practical barriers that influence vaccine adherence. Nursing students need to be prepared in culturally sensitive communication, geriatric care, and community health practices that facilitate vaccinations. Community immersion activities need to expose students to various elderly populations in rural and urban settings, where they can learn to develop the competencies required to enhance vaccine adherence and address particular issues in elderly care.

6. Future researchers are encouraged to investigate other contextual and behavioral variables that could affect vaccine adherence in elderly populations, especially in other barangays or parts of the country with different socio-cultural settings. Qualitative data collection using focus group discussions or in-depth interviews is suggested to have a better understanding of older persons' beliefs, experiences, and challenges. In addition, future studies can assess the efficacy of particular health communication measures or interventions to enhance adherence to vaccination in comparable urban or ruralenvironment.

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APPENDIX A – Research Questionnaire

Enablers, Barriers, and Adherence to Vaccination Among Elderly

Survey Questionnaire

A. Respondents' Perceived Enablers to Vaccination

Direction: For each statement in the survey, please indicate how much you agree or disagree with the statement by putting a check in the box (√) on the right side on each statement. There are no wrong or right answers. Your answers will be kept strictly confidential and you will not be identified.

Scale: 5 – Strongly Agree (SA)
4 – Agree (A)
3 – Neutral (N)
2 – Disagree (D)
1 – Strongly Disagree (SD)

(Direksyon: Sa matag pamahayag sa surbey, palihug ibutang ang (√) tsek sa kahon sa tuo nga bahin sa matag pamahayag aron ipakita kung unsa ka ka uyon o dili uyon niini. Walay sayop o husto nga tubag. Ang imong mga tubag pagatipigan nga hilabihan ka kompidensyal ug dili ka mailhan.)

Eskala:
5 – Dako kaayong pag-uyon (SA)
4 – Pag-uyon (A)
3 – Walay pabor o supak (N)
2 – Dili uyon (D)
1 – Dako kaayong dili uyon (SD)

A. Statements on Respondents' Perceived Enablers to Vaccination	**SA (5)**	**A (4)**	**N (3)**	**D (2)**	**SD (1)**
Trust in Healthcare Provider					
1. I trust my healthcare provider knowledge about pneumococcal and influenza vaccines more than the information I see on social media. *(Mas saligan nako ang kaalam sa akong healthcare provider bahin pneumococcal og influenza nga bakuna kaysa sa akong makita sa social media.)*					

2. I feel assured when my healthcare provider explains the benefits of getting vaccinated for pneumococcal and influenza. *(Nabati nako nga kasaligan kung ang akonghealthcare provider magpahibalo sa mga benepisyo sa pagpabakunabatok sa pneumococcal og influenza.)*					
3. I appreciate the way my healthcare provideraddresses my questions about pneumococcal and influenza vaccines. *(Gapasalamat ko kung motubag ang akong healthcare provider sa akong mga pangutana bahin sa bakuna batok sa pneumococcal og influenza.)*					
4. I am more likely to get vaccinated for pneumococcal and influenza when my healthcare provider personally recommends it to me. *(Mas dako ang posibilidad nga magpabakuna ko batok sa pneumococcal og influenza kung personal nga irekomenda kini sa akong healthcare provider.)*					
5. I feel comfortable discussing my doubts about pneumococcal and influenza vaccination with my healthcare provider. *(Komportable ko maghisgot sa akong mga duha-duha bahin sa pneumococcal og influenza nga bakuna sa akong healthcare provider.)*					
Health Literacy and Education					
6. I understand why getting vaccinated for pneumococcal and influenza are important for my health.					

(Nasabtan nako nga importante ang pagpabakun batok sa pnemococcal og influenza para sa kahimsog sa akong lawas.)					
7. I ask questions when I do not understand information about pneumococcal and influenza vaccines. *(Mangutana ko kung wala ko kasabot sa impormasyon bahin sa pneumococcal og influenza nga bakuna.)*					
8. I am aware of the benefits and potential side effects of the pneumococcal and influenza vaccines recommended for me. *(Nahibalo ko sa mga sangputanan kung dili ko magpabakuna batok sa pneumococcal og influenza.)*					
9. I am aware of the consequences of not getting vaccinated against pneumococcal and influenza vaccines.					
10. I have enough information to know why I need pneumococcal and influenza vaccines. *(Aduna koy igong kasayuran kung nganong kinahanglan ko magpabakuna batok sa pneumococcal og influenza.)*					
Perceived Vulnerability to Disease					
11. I understand that my age increases the chances of serious illness without pneumococcal and influenza vaccines. *(Nasabtan nako nga ang akong edad nagpadako sa posibilidad nga mas seryoso ang sakit nga akong makuha kung wala koy bakuna batok sa pneumococcal og influenza.)*					

12. I believe I am at risk of developing severe pneumonia if I do not get vaccinated for pneumococcal vaccine. *(Mutuo ko nga risgo ko nga makakuha og nagka-grabe na pulmonya kung dili ko magpabakuna batok sa pneumococcal og influenza.)*					
13. I feel that my lifestyle or daily activities could expose me to preventable diseases. *(Nabati nako nga ang akong lifestyle ug adlaw-adlaw nga kalihukan makapahimulos sa akong pagkahimugso sa mga sakit.)*					
14. I think my immune system alone is not enough to protect me from certain diseases. *(Nagtuo ko nga dili igo ang akong immune system aron maprotektahan ko batok sa pipila ka mga sakit.)*					
15. I think pneumococcal and influenza vaccines are important for staying healthy as I grow older. *(Nagtuo ko nga importante ang pagpabakuna batok sa pneumococcal og influenza aron magpabilin akong maayong panglawas samtang magkatigulang.*					

B. Respondents' Perceived Barriers to Vaccination

Direction: For each statement in the survey, please indicate how much you agree or disagree with the statement by putting a check in the box (√) on the right side on each statement. There are no wrong or right answers. Your answers will be kept strictly confidential and you will not be identified.

Scale: 5 – Strongly Agree (SA)
4 – Agree (A)
3 – Neutral (N)
2 – Disagree (D)
1 – Strongly Disagree (SD)

(Direksyon: Sa matag pamahayag sa surbey, palihug ibutang ang (√) tsek sa kahon sa tuo nga bahin sa matag pamahayag aron ipakita kung unsa ka ka uyon o dili uyon niini. Walay sayop o husto nga tubag. Ang imong mga tubag pagatipigan nga hilabihan ka kompidensyal ug dili ka mailhan.)

Eskala:
5 – Dako kaayong pag-uyon (SA)
4 – Pag-uyon (A)
3 – Walay pabor o supak (N)
2 – Dili uyon (D)
1 – Dako kaayong dili uyon (SD)

B. Statements on Respondents' Perceived Barriers toVaccination	**SA (5)**	**A (4)**	**N (3)**	**D (2)**	**SD (1)**
Access to Healthcare					
1. I feel nervous about going to the health center alone because I am afraid of getting lost or confused. *(Makulbaan ko moadto sa health center nga ako ray isa kay basin mawala ko o maglibog.)*					
2. I don't have money for transportation to the health center. *(Wala koy kwarta para pamasahe paingon sa health center.)*					

3. I have difficulty scheduling an appointment for vaccination. *(Lisod para nako ang pagschedule og appointment para sa bakuna.)*					
4. I believe the health center is too far from my home. *(Layo ra kaayo ang health center gikan sa akong balay.)*					
5. Ifind it difficult to get vaccinated because I no longerhave the strength to visit the health center on my own. *(Lisod para nako nga magpabakuna kay wala nakoy kusog nga makalakaw pa paingon sa health center.)*					
Misinformation and Fear					
6. I am worried that pneumococcal and influenza vaccines are not safe for me. *(Nahadlok ko nga basin makadaot para nako ang pneumococcal og influenza nga bakuna.)*					
7. I have heard things that make me doubt the effectiveness of pneumococcal and influenza vaccines. *(Nakadungog ko ug mga butang nga nakapaduda nako sa kaepektibo sa mga pneumococcal og influenza* nga *bakuna.)*					
8. I am afraid of the side effects that might come after pneumococcal and influenza vaccination. *(Nahadlok ko sa mga epekto nga mahitabo sa akong lawas human sa pagpabakuna batok sa pneumococcal og influenza.)*					

9. I feel confident about getting vaccinated for pneumococcal and influenza vaccines regardless of others' opinions. *(Kompyansa ko magpabakuna batok sa pneumococcal og influenza bisan unsay isulti sa uban.)*					
10. I've been told that pneumococcal and influenza vaccines are not safe for older adults. *(Naay nakaingun nako nga dili mayo ang pagpa bakuna batok sa pneumococcal og influenza para sa mga tigulang.)*					
Cultural and Social Beliefs					
11. I believe that some cultural practices that do not support getting vaccinations. *(Mutuo ko nga ang pipila ka praktis sa kultura dili mosuporta sa pagpabakuna.)*					
12. I think some people I know do not trust pneumococcal and influenza vaccines because of their beliefs. *(Nagtuo ko nga ang uban nakong kaila dili mosalig sa pneumococcal og influenza bakuna tungod sa ilang mgapagtuo og tradisyon.)*					
13. I believe that social pressure makes it hard for me to decide to get vaccinated. *(Nabati nako nga tungod sa social pressure, lisod para nako magdesisyon nga magpabakuna.)*					
14. I struggle to get vaccinated because my family prefers herbal medicine over modern treatments.					

(Naglisod ko og pagpabakuna kay mas pabor ang akong pamilya sa herbal nga tambal kaysa moderno nga tambal.)					
15. I worry that getting vaccinated might go against my beliefs or traditions. *(Nabalaka ko nga basin makontra sa among tradisyon og pagtuo ang pagpabakuna.)*					

C. Respondents' Level of Adherence to Vaccination

Direction: For each statement in the survey, please indicate how much you agree or disagree with the statement by putting a check in the box (√) on the right side on each statement. There are no wrong or right answers. Your answers will be kept strictly confidential and you will not be identified.

Scale: 5 – Strongly Agree (SA)
4 – Agree (A)
3 – Neutral (N)
2 – Disagree (D)
1 – Strongly Disagree (SD)

(Direksyon: Sa matag pamahayag sa surbey, palihug ibutang ang (√) tsek sa kahon sa tuo nga bahin sa matag pamahayag aron ipakita kung unsa ka ka uyon o dili uyon niini. Walay sayop o husto nga tubag. Ang imong mga tubag pagatipigan nga hilabihan ka kompidensyal ug dili ka mailhan.)

Eskala:
5 – Dako kaayong pag-uyon (SA)
4 – Pag-uyon (A)
3 – Walay pabor o supak (N)
2 – Dili uyon (D)
1 – Dako kaayong dili uyon (SD)

C. Statements on Respondents' Level of Adherence toVaccination	**SA (5)**	**A (4)**	**N (3)**	**D (2)**	**SD (1)**
Timeliness of Vaccination					

1. I follow the vaccination schedule recommended by my healthcare provider. *(Mosunod ko sa schedule sa pagpabakuna nga girekomenda sa akong healthcare provider.)*					
2. I remember to get my regular pneumococcal and influenza vaccines when it's time. *(Muhinumdom ko sa pagpakuha sa akong regular nga mga bakuna sama sa pneumococcal og influenza sa saktong oras..)*					
3. I prioritize getting my vaccinations for pneumococcal and influenza even if I am busy or have other responsibilities. *(Giprayoridad nako ang pagpabakuna batok sa pneumococcal og influenza bisan busy ko o aduna koy ubang responsibilidad..)*					
4. I take vaccination seriously because I have seen how pneumonia and flu affect older adults like me. *(Giseriyoso nako ang pagpabakuna tungod kay nakita nako unsa ka grabe ang epekto sa flu ug pneumonia sa mga katigulangan.)*					
5. I feel confident that the pneumococcal and influenza vaccines I take are safe and effective. *(Nakasiguro ko nga sakto ug epektibo ang pneumococcal og influenza nga bakuna nga akong nakuha.)*					
6. I seek assistance from my family or community health workers to ensure I receive my vaccinations on time. *(Mangayo ko og tabang sa akong pamilya o mga health worker sa komunidad aron*					

masiguro nga makadawat ko sa akong bakuna sa saktong oras.)					
7. I get vaccinated on time so I won't have to spend money on medicines and hospital bills. *(Magpabakuna ko sa saktong oras aron malikayan nako ang gasto sa tambal ug ospital.)*					
Repeat Vaccination					
8. I understand the importance of getting booster shots to maintain my immunity. *(Nasabtan nako ang importansya sa booster shots aron mapadayon ang akong immunity sa mga sakit.)*					
Timeliness of Vaccination					
9. I make it a priority to get booster shots whenever they are due. *(Giprayoridad nako ang pagpakuha og booster shots kung ung kini na ang takdang oras.)*					
10. I make sure to get the influenza and pneumococcal vaccines every year, even if I feel healthy. *(Gisiguro nako nga makakuha ko sa pneumococcal og influenza nga bakuna matag tuig bisan tan-aw nako nga himsog ko.)*					
11. I receive all the recommended pneumococcal and influenza vaccines and booster shots to protect myself from infections.					

(Nagadawat ko sa tanan girekomenda nga pneumococcal og influenza nga bakuna ug booster aron maprotektahan ang akong kaugalingon.)					
12. I know that keeping up with repeat vaccines is as important as initial doses. *(Nasabtan nako nga importante ang padayon nga pagpabakuna parehas sa unang dosis.)*					
13. I believe that booster shots help keep me safe from serious illnesses. *(Mutuo ko nga ang booster shots makatabang paglikay sa seryosong mga sakit.)*					
14. I plan ahead to get my booster vaccines on time. *(Nagplano ko daan aron mahibalik ko sa pagpabakunaog booster sa tukmang panahon.)*					
15. I believe getting repeat vaccines helps me avoid hospital visits due to infections. *(Nagtuo ko nga ang pagpabakuna og balik, makatabang nako nga malikayan ang pag-adto sa ospital tungod sa mga impeksyon.)*					

APPENDIX B - Sample of Filled Out Questionnaire

Misamis University
Ozamiz City
College of Nursing & School of Midwifery & Radiologic Technology
Nos.: (088) 521-0367, 521-0431 / Telefax No.: (088)521-2917
E-mail Address: mu@mu.edu.ph

I have read the foregoing Informed Consent Form, or it has been read to me. I had the opportunity to ask questions, which were subsequently answered fully. I consent voluntarily to be a respondent of this study.

(Akong nabasa ang nauna nga Informed Consent Form, o gibasa kini kanako. Natagaan ako og higayon nga makapangutana nga natubag sa hingpit. Ako mosugot nga boluntaryo nga mahimong respondent sa niining pagtuon.)

Print Name of Respondent (Ngalan sa Partisipante): [redacted]

Signature of Respondent (Pirma sa Partisipante): [redacted]

Date: [MM/DD/YYYY] 03-16-2025

If Illiterate (Kung dili makasulat ug makabasa)

If the respondent is illiterate, a witness who is literate will sign. The respondent will choose him/her and who is without connection with the researcher or the research group to attest this undertaking. The respondent will affix his thumb print.

[Kung ang participant kay dili makabasa o makasulat, mopirma ang usa ka makabasa ug makasulat nga testigo. Ang respondent ang mopili kaniya nga walay koneksyon sa nagtuon o sa iyang grupo para mopamatuod sa gimbuhaton. Ang respondent mobutang sa iyang tamla (thumb print)].

_____

Name and Signature of the Witness

(Ngalan ug Pirma sa Testigo)

Enablers, Barriers, and Adherence to Vaccination Among Elderly

Survey Questionnaire

Part 1. Enablers to Vaccination

Direction: For each statement in the survey, please indicate how much you agree or disagree with the statement by putting a check in the box (√) on the right side on each statement. There are no wrong or right answers. Your answers will be kept strictly confidential and you will not be identified.

Scale: 5 – Strongly Agree (SA)
4 – Agree (A)
3 – Neutral (N)
2 – Disagree (D)
1 – Strongly Disagree (SD)

(Direksyon: Sa matag pamahayag sa surbey, palihug ibutang ang (√) tsek sa kahon sa tuo nga bahin sa matag pamahayag aron ipakita kung unsa ka ka uyon o dili uyon niini. Walay sayop o husto nga tubag. Ang imong mga tubag pagatipigan nga hilabihan ka kompidensyal ug dili ka mailhan.)

Eskala:
5 – Dako kaayong pag-uyon (SA)
4 – Pag-uyon (A)
3 – Walay pabor o supak (N)
2 – Dili uyon (D)
1 – Dako kaayong dili uyon (SD)

A. Statements on Enablers to Vaccination	SA (5)	A (4)	N (3)	D (2)	SD (1)
Trust in Healthcare Provider					
1. I trust my healthcare provider knowledge about vaccines more than information I see on social media. *(Mas saligan nako ang kaalam sa akong healthcare provider bahin sa bakuna kaysa sa akong makita sa social media.)*	√				
2. I feel assured when my healthcare provider explains the benefits of getting vaccinated. *(Nabati nako nga kasaligan kung ang akong healthcare provider magpahibalo sa mga benepisyo sa pagpabakuna.)*	√				
3. I appreciate the way my healthcare provider addresses my questions about vaccines. *(Gapasalamat ko kung motubag ang akong healthcare provider sa akong mga pangutana bahin sa bakuna.)*	√				

A. Statements on Enablers to Vaccination	SA (5)	A (4)	N (3)	D (2)	SD (1)
4. I am more likely to get vaccinated when my healthcare provider personally recommends it to me. *(Mas dako ang posibilidad nga magpabakuna ko kung personal nga irekomenda kini sa akong healthcare provider.)*	✓				
5. I feel comfortable discussing my doubts about vaccination with my healthcare provider. *(Komportable ko maghisgot sa akong mga duha-duha bahin sa bakuna sa akong healthcare provider.)*	✓				
Health Literacy and Education					
6. I understand why getting vaccinated (such as flu, pneumonia) is important for my health. *(Nasabtan nako nga importante ang pagpabakuna (sama sa flu ug pneumonia) para sa kahimsog sa akong lawas.)*	✓				
7. I ask questions when I do not understand information about vaccines. *(Mangutana ko kung wala ko kasabot sa impormasyon bahin sa bakuna.)*	✓				
8. I am aware of the benefits and potential side effects of the vaccines recommended for me. *(Nahibalo ko sa mga sangputanan kung dili ko magpabakuna batok sa flu ug pneumococcal.)*	✓				
9. I am aware of the consequences of not getting vaccinated against pneumococcal and influenza infections. *(Nahibalo ko sa mga risgo kung dili ko magpabakuna.)*	✓				
10. I have enough information to know why I need vaccines. *(Aduna koy igong kasayuran kung nganong kinahanglan ko magpabakuna.)*		✓			
Perceived Vulnerability to Disease					
11. I understand that my age increases the chances of serious illness without vaccines. *(Nasabtan nako nga ang akong edad nagpadako sa posibilidad nga mas seryoso ang sakit nga akong makuha kung wala koy bakuna.)*		✓			
12. I believe I am at risk of developing severe pneumonia if I do not get vaccinated.	✓				

C. Statements on Adherence to Vaccination	SA (5)	A (4)	N (3)	D (2)	SD (1)
Timeliness of Vaccination					
(Nasabtan nako nga importante ang padayon nga pagpabakuna parehas sa unang dosis.)		✓			
13. I believe that booster shots help keep me safe from serious illnesses. *(Mutuo ko nga ang booster shots makatabang paglikay sa seryosong mga sakit.)*		✓			
14. I plan ahead to get my booster vaccines on time. *(Nagplano ko daan aron mahibalik ko sa pagpabakunaog booster sa tukmang panahon.)*	✓				
15. I believe getting repeat vaccines helps me avoid hospital visits due to infections. *(Nagtuo ko nga ang pagpabakuna og balik, makatabang nako nga malikayan ang pag-adto sa ospital tungod sa mga impeksyon.)*	✓				

Part 2. Barriers to Vaccination

Direction: For each statement in the survey, please indicate how much you agree or disagree with the statement by putting a check in the box (√) on the right side on each statement. There are no wrong or right answers. Your answers will be kept strictly confidential and you will not be identified.

Scale: 5 – Strongly Agree (SA)
4 – Agree (A)
3 – Neutral (N)
2 – Disagree (D)
1 – Strongly Disagree (SD)

(Direksyon: Sa matag pamahayag sa surbey, palihug ibutang ang (√) tsek sa kahon sa tuo nga bahin sa matag pamahayag aron ipakita kung unsa ka ka uyon o dili uyon niini. Walay sayop o husto nga tubag. Ang imong mga tubag pagatipigan nga hilabihan ka kompidensyal ug dili ka mailhan.)

Eskala:
5 – Dako kaayong pag-uyon (SA)
4 – Pag-uyon (A)
3 – Walay pabor o supak (N)
2 – Dili uyon (D)
1 – Dako kaayong dili uyon (SD)

B. Statements on Barriers to Vaccination	SA (5)	A (4)	N (3)	D (2)	SD (1)
Access to Healthcare					
1. I feel nervous about going to the health center alone because I am afraid of getting lost or confused. *(Makulbaan ko moadto sa health center nga ako ray isa kay basin mawala ko o maglibog.)*	√				
2. I don't have money for transportation to the health center. *(Wala koy kwarta para pamasahe paingon sa health center.)*	√				
3. I have difficulty scheduling an appointment for vaccination. *(Lisod para nako ang pagschedule og appointment para sa bakuna.)*		√			
4. I believe the health center is too far from my home. *(Layo ra kaayo ang health center gikan sa akong balay.)*		√			
5. I find it difficult to get vaccinated because I no longer have the strength to visit the health center on my own. *(Lisod para nako nga magpabakuna kay wala nakoy kusog nga makalakaw pa paingon sa health center.)*		√			

B. Statements on Barriers to Vaccination	SA (5)	A (4)	N (3)	D (2)	SD (1)
Misinformation and Fear					
6. I am worried that vaccines might not be safe for me. *(Nahadlok ko nga basin makadaot para nako ang bakuna.)*	✓				
7. I have heard things that make me doubt the effectiveness of vaccines. *(Nakadungog ko ug mga butang nga nakapaduda nako sa kaepektibo sa mga bakuna.)*	✓				
8. I am afraid of the side effects that might come after vaccination. *(Nahadlok ko sa mga epekto nga mahitabo sa akong lawas human sa pagpabakuna.)*	✓				
9. I feel nervous about getting vaccinated due to what I hear from others. *(Nahadlok ko magpabakuna tungod sa akong nadungog gekan sa uban.)*	✓				
10. I've been told that vaccines are not safe for older adults. *(Naay nakaingun nako nga dili mayo ang pagpa bakuna para sa mga tigulang.)*	✓				
Cultural and Social Beliefs					
11. I believe that some cultural practices do not support getting vaccinated. *(Mutuo ko nga ang pipila ka praktis sa kultura dili mosuporta sa pagpabakuna.)*	✓				
12. I think some people I know do not trust vaccines because of their beliefs. *(Nagtuo ko nga ang uban nakong kaila dili mosalig sa bakuna tungod sa ilang mga pagtuo og tradisyon.)*	✓				
13. I believe that social pressure makes it hard for me to decide to get vaccinated. *(Nabati nako nga tungod sa social pressure, lisod para nako magdesisyon nga magpabakuna.)*	✓				
14. I struggle to get vaccinated because my family prefers herbal medicine over modern treatments. *(Naglisod ko og pagpabakuna kay mas pabor ang akong pamilya sa herbal nga tambal kaysa moderno nga tambal.)*		✓			
15. I worry that getting vaccinated might go against my beliefs		✓			

B. Statements on Barriers to Vaccination	SA (5)	A (4)	N (3)	D (2)	SD (1)
or traditions. *(Nabalaka ko nga basin makontra sa among tradisyon og pagtuo ang pagpabakuna.)*		✓			

Part 3. Adherence to Vaccination

Direction: For each statement in the survey, please indicate how much you agree or disagree with the statement by putting a check in the box (√) on the right side on each statement. There are no wrong or right answers. Your answers will be kept strictly confidential and you will not be identified.

Scale: 5 – Strongly Agree (SA)
4 – Agree (A)
3 – Neutral (N)
2 – Disagree (D)
1 – Strongly Disagree (SD)

(Direksyon: Sa matag pamahayag sa surbey, palihug ibutang ang (√) tsek sa kahon sa tuo nga bahin sa matag pamahayag aron ipakita kung unsa ka ka uyon o dili uyon niini. Walay sayop o husto nga tubag. Ang imong mga tubag pagatipigan nga hilabihan ka kompidensyal ug dili ka mailhan)

Eskala:
5 – Dako kaayong pag-uyon (SA)
4 – Pag-uyon (A)
3 – Walay pabor o supak (N)
2 – Dili uyon (D)
1 – Dako kaayong dili uyon (SD)

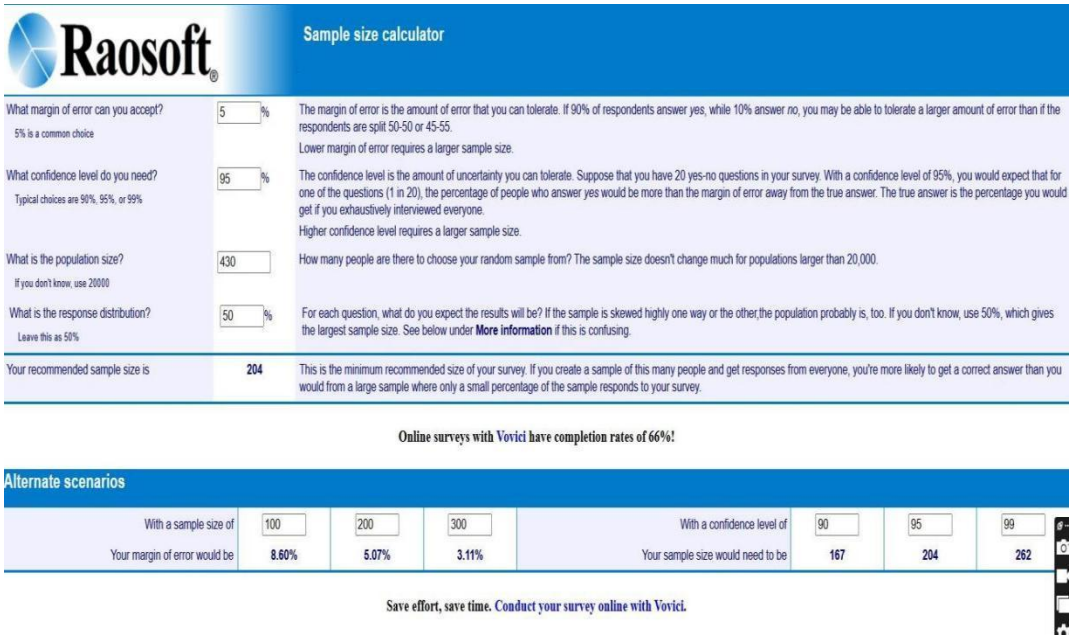
C. Statements on Adherence to Vaccination	SA (5)	A (4)	N (3)	D (2)	SD (1)
Timeliness of Vaccination					
1. I follow the vaccination schedule recommended by my healthcare provider. *(Mosunod ko sa schedule sa pagpabakuna nga gi-rekomenda sa akong healthcare provider.)*		✓			
2. I remember to get my regular vaccines (such as flu, pneumonia) when it's time. *(Muhinumdom ko sa pagpakuha sa akong regular nga mga bakuna (sama sa flu ug pneumonia) sa saktong oras.)*		✓			
3. I prioritize getting my vaccinations even if I am busy or have other responsibilities. *(Giprayoridad nako ang pagpabakuna bisan busy ko o aduna koy ubang responsibilidad.)*		✓			

C. Statements on Adherence to Vaccination	SA (5)	A (4)	N (3)	D (2)	SD (1)
Timeliness of Vaccination					
4. I take vaccination seriously because I have seen how pneumonia and flu affect older adults like me. *(Giseriyoso nako ang pagpabakuna tungod kay nakita nako unsa ka grabe ang epekto sa flu ug pneumonia sa mga katigulangan.)*		✓			
5. I feel confident that the vaccines (such as flu, pneumonia) I take are safe and effective. *(Nakasiguro ko nga sakto ug epektibo ang mga bakuna (sama sa flu ug pneumonia) nga akong nakuha.)*		✓			
6. I seek assistance from my family or community health workers to ensure I receive my vaccinations on time. *(Mangayo ko og tabang sa akong pamilya o mga health worker sa komunidad aron masiguro nga makadawat ko sa akong bakuna sa saktong oras.)*	✓				
7. I get vaccinated on time so I won't have to spend money on medicines and hospital bills. *(Magpabakuna ko sa saktong oras aron malikayan nako ang gasto sa tambal ug ospital.)*		✓			
Repeat Vaccination					
8. I understand the importance of getting booster shots to maintain my immunity. *(Nasabtan nako ang importansya sa booster shots aron mapadayon ang akong immunity sa mga sakit.)*		✓			
9. I make it a priority to get booster shots whenever they are due. *(Giprayoridad nako ang pagpakuha og booster shots kung ung kini na ang takdang oras.)*		✓			
10. I make sure to get the flu and pneumococcal vaccine every year, even if I feel healthy. *(Gisiguro nako nga makakuha ko sa flu ug pneumococcal vaccine matag tuig bisan tan-aw nako nga himsog ko.)*	✓				
11. I receive all the recommended vaccines and booster shots to protect myself from infections. *(Nagadawat ko sa tanan girekomenda nga mga bakuna ug booster aron maprotektahan ang akong kaugalingon.)*	✓				
12. I know that keeping up with repeat vaccines is as important as initial doses.		✓			

C. Statements on Adherence to Vaccination	SA (5)	A (4)	N (3)	D (2)	SD (1)
Timeliness of Vaccination					
4. I take vaccination seriously because I have seen how pneumonia and flu affect older adults like me. *(Giseriyoso nako ang pagpabakuna tungod kay nakita nako unsa ka grabe ang epekto sa flu ug pneumonia sa mga katigulangan.)*		✓			
5. I feel confident that the vaccines (such as flu, pneumonia) I take are safe and effective. *(Nakasiguro ko nga sakto ug epektibo ang mga bakuna (sama sa flu ug pneumonia) nga akong nakuha.)*		✓			
6. I seek assistance from my family or community health workers to ensure I receive my vaccinations on time. *(Mangayo ko og tabang sa akong pamilya o mga health worker sa komunidad aron masiguro nga makadawat ko sa akong bakuna sa saktong oras.)*	✓				
7. I get vaccinated on time so I won't have to spend money on medicines and hospital bills. *(Magpabakuna ko sa saktong oras aron malikayan nako ang gasto sa tambal ug ospital.)*		✓			
Repeat Vaccination					
8. I understand the importance of getting booster shots to maintain my immunity. *(Nasabtan nako ang importansya sa booster shots aron mapadayon ang akong immunity sa mga sakit.)*		✓			
9. I make it a priority to get booster shots whenever they are due. *(Giprayoridad nako ang pagpakuha og booster shots kung ung kini na ang takdang oras.)*		✓			
10. I make sure to get the flu and pneumococcal vaccine every year, even if I feel healthy. *(Gisiguro nako nga makakuha ko sa flu ug pneumococcal vaccine matag tuig bisan tan-aw nako nga himsog ko.)*	✓				
11. I receive all the recommended vaccines and booster shots to protect myself from infections. *(Nagadawat ko sa tanan girekomenda nga mga bakuna ug booster aron maprotektahan ang akong kaugalingon.)*	✓				
12. I know that keeping up with repeat vaccines is as important as initial doses.		✓			

C. Statements on Adherence to Vaccination	SA (5)	A (4)	N (3)	D (2)	SD (1)
Timeliness of Vaccination					
(Nasabtan nako nga importante ang padayon nga pagpabakuna parehas sa unang dosis.)		✓			
13. I believe that booster shots help keep me safe from serious illnesses. *(Mutuo ko nga ang booster shots makatabang paglikay sa seryosong mga sakit.)*		✓			
14. I plan ahead to get my booster vaccines on time. *(Nagplano ko'daan aron mahibalik ko sa pagpabakunaog booster sa tukmang panahon.)*	✓				
15. I believe getting repeat vaccines helps me avoid hospital visits due to infections. *(Nagtuo ko nga ang pagpabakuna og balik, makatabang nako nga malikayan ang pag-adto sa ospital tungod sa mga impeksyon.)*	✓				

APPENDIX C - Sampling Computation



CODE	NO. OF ELDERLY	PERCENTAGE	NO. OF RESPONDENTS
A	63	14.65%	30
B	80	18.60%	38
C	55	12.79%	26
D	38	8.84%	18
E	59	13.72%	28
F	44	10.23%	22
G	22	5.12%	10
H	26	6.05%	12
I	24	5.58%	11
J	19	4.42%	9
TOTAL	**430**	**100%**	**204**

APPENDIX D - Informed Consent Form

Misamis University
Ozamiz City
MISAMIS UNIVERSITY RESEARCH CENTER
Phone: +6388 521 0367 | Fax: +6388 521 2917
Email: research@mu.edu.ph

INFORMED CONSENT FORM

(PORMA SA NASABTAN NGA PAGTUGOT)

Researcher/Investigator: **Lyka Ariana B. Fermin, Heart M. Fernandez, Abygail A. Hamac, Christine G. Lucresia, Michailah Gale T. Navales**

Course: Bachelor of Science in Nursing

College: College of Nursing, Midwifery, and Radiologic Technology

Email / Contact Number: lykaarianafermin13@gmail.com or 09123736575

Thesis Title: **Enablers, Barriers, and Adherence to Vaccination Among Elderly**

Part I. INFORMATON	**SHEET**
Introduction *(Pasiuna)*	Good day! We are **Lyka Ariana B. Fermin, Heart M. Fernandez, Abygail A. Hamac, Christine G. Lucresia, Michailah Gale T. Navales,** the principal researcher/investigator of the study entitled " Enablers, Barriers, and Adherence to Vaccination Among Elderly." We are students under the program, Bachelor of Science in Nursing at Misamis University in Ozamiz City. We are to conduct the research with parents who have a child/children vaccinated as our respondent. In this vein, I am respectfully seeking your voluntary participation, being qualified to give your informed consent to take part in this study. Before you decide whether to participate or not in this study, please read the succeeding information about the study and feel free to ask questions anytime should there be anything you do not understand or want to clarify. If you agree to answer the questionnaire, you will be asked to affix your name and signature

	on this form for which you will be given a copy. *(Maayong adlaw! Kami **si*** **Lyka Ariana B. Fermin, Heart M. Fernandez, Abygail A. Hamac, Christine G. Lucresia, Michailah Gale T. Navales***, ang nagpahigayon sa pagtuon kabahin sa* *"*Enablers, Barriers, and Adherence to Vaccination Among Elderly *". Kami usa ka estudyante sa Misamis University sa Ozamis City. Kami nagapili kanimo isip partisipante nga maoy mutubag sa gikinahagnglang impormasyon niining gihimong pagtuon. Kami matinahurong naghangyo sa inyong bulontaryo nga pag-apil niini nga pagtuon. Gikinahanglan nga ikaw naa sa saktong edad ug naay kakayahan nga mohatag sa pagtugot aron makaapil niini nga pagtuon. Sa dili pa ka mohukom sa pag-apil niini nga pagtubag sa kwestyunaryo, palihug sa pagbasa sa mga impormasyon sa ubos ug gawasnon ka nga makapangutana kon adunay wala nimo nasabtan o gusto nimong iklaro. Kung motugot ka sa pagahimoon nga interview, papirmahon ka niini nga porma ug tagaan usab ka ug imong kaugalingong kopya.)*
Purpose *(Katuyuan)*	This study aims to examine the relationship between enablers and barriers to vaccination in terms of accessibility, perceived benefits, and the adherence of elderly individuals to recommended immunization schedules. Additionally, it seeks to assess how factors like vaccine availability, awareness programs, and healthcare system efficiency influence vaccine uptake among the elderly within the community and healthcare facility. This research will address gaps in understanding the relationship between enablers and barriers to vaccination, such as accessibility and perceived benefits, and how these factors influence the adherence of elderly individuals to immunization schedules. By exploring the impact of vaccine availability, awareness initiatives, and the efficiency of healthcare services, the study aims to enhance strategies for improving vaccine uptake among the elderly, ultimately contributing to better health outcomes and more effective public health interventions. *(Ang pagtuon nga kini nagtinguha sa pagsusi sa relasyon sa mga nakapasiugda ug babag sa pagpabakuna, ilabi na sa aspeto sa*

	aksesibilidad, gituohang benepisyo, ug pagsunod sa mga elderly sa girekomendang iskedyul sa pagbakuna. Dugang pa, gitumong usab niini nga mahibal-an kung giunsa sa mga butang sama sa pagkabutang sa bakuna, mga programa sa pagpahibalo, ug kahusayan sa sistema sa panglawas ang ilang impluwensya sa pagpabakuna sa mga tigulang sulod sa komunidad ug mga pasilidad sa panglawas. *Ang maong panukiduki motubag sa kakulangan sa kasayuran kabahin sa relasyon sa mga nakapasiugda ug babag sa pagpabakuna, sama sa aksesibilidad ug gituohang benepisyo, ug kung giunsa niini mapadako o mapugngan ang pagsunod sa mga tigulang sa iskedyul sa immunisasyon. Pinaagi sa pagsusi sa epekto sa pagkabutang sa bakuna, mga inisyatibo sa pagpahibalo, ug kahusayan sa serbisyo medikal, ang tuyo sa pagtuon mao ang pagpasiugda og mas epektibong pamaagi aron mapaayo ang pagpabakuna sa mga tigulang, nga mokontribyut sa mas maayong kahimtang sa panglawas ug mas epektibong mga interbensyon sa pampublikong kahimsog.)*
Type of Research Intervention *(Matang sa Interbensyon sa Pagtuon)*	This study will be conducted through the use of questionnaires. The gathering of data will be conducted in person. *(Kining pagtuon pagabuhaton pinaagi sa kwestyunaryo. Personal ang pagkuha sa datos.)*

Selection of Participants *(Pagpili sa mga Partisipante)*	The selection of the respondents is based on the following inclusion criteria: The respondents includes elderly individual aged 60 years old and above who are residents in the community and are willing to participate in the study regardless of gender, religion, ethnicity, socioeconomic status, or comorbidity and are selected using Raosoft with a 95% level of confidence and a 5% margin of error. The participants will be selected with the following criteria: Elderly individuals having / have not received influenza and pneumococcal vaccinations. (*Ang pagpili sa mga respondante gibase sa mosunod nga inclusion criteria: Ang mga tinubag naglakip sa mga tigulang nga 60 anyos pataas nga residente sa komunidad ug andam nga motambong o moapil sa maong pagtuon, bisan pa sa ilang gender, relihiyon, etnisidad, kahimtang sa kinabuhi, o mga kasakit nga gilantaw nga kauban (comorbidities). Ang mga partisipante gipili gamit ang Raosoft nga adunay 95% nga lebel sa kasaligan (confidence level) ug 5% nga margin of error. Ang mga partisipante pilion base sa mosunod nga criteria: mga tigulang nga nakadawat o wala pa makadawat og influenza ug pneumococcal nga mga bakuna.)*
Voluntary Participation *(Boluntaryo nga Partisipasyon)*	*Your participation has to be voluntary and will not affect your situation or status in any way, including your relationship with the researcher. Thus, you are free to decide if you will take part or not. If you decide to participate, you are free not to answer any question(s) if you choose not to, and you are free to withdraw or terminate participation at any stage of the study, without the need to give any reason. You will not be penalized in case of termination of participation.* *(Boluntaryo ang imong pag-apil ug kini dili makaapekto sa imong sitwasyon o estado apil na imong relasyon sa nagtuon. Gawasnon ka nga modesisyon kung kung moapil ka niini nga pagtoon o dili. Kung mo-desisyon ka nga moapil, gawasnon ka nga dili motubag sa bisan asa nga pangutana nga dili nimo gusto nga tubagon.)*

Procedure *(Pamaagi)*	*The respondents will be given ample time to read the items in the questionnaires. The retrieval of the answered questionnaire will be according to the schedule agreed upon. The researcher will personally retrieve the questionnaires. Tallying of the research data will follow.* *Aside from answering the questionnaires, you may be asked to provide a demographic profile as deemed necessary for the study. The personal information which includes name, age, (etc.), which will be utilized in the discussion of the findings of the study. The information and data provided by you as a respondent will be utilized for this study alone and will be treated with utmost confidentiality.* *(Ang mga partisipante pagahatagan og igong panahon sa pag-apil sa pag tubag sa kwestyunaryo. Ang pag tubag sa kwestyunaryo pwedeng himoon kausa nga higayon o sa makadaghan depende sa panginanghalanon. Ang mga impormasyon ug datos nga nakuha gikan kanimo isip ka partisipante gamiton lamang niining research og hatagan og tumang pag-amping nga dili mabutyag.).*
Duration *(Gidugayon)*	The gathering of data through the survey will last for 10-15 minutes. *(Ang pagkuha sa datos pinaagi sa interview mokabat ngadto sa 10 minutos hangtod 15 minutos.)*

Risks and Discomforts *(Risgo ug Kahasol)*	The respondents will be protected from physical, social, or economic risks. In case the items in the survey instrument are too personal and make you feel uncomfortable, you may decline to answer any or all questions and may terminate your involvement at any time you choose. *(Ang mga partisipante ginaprotektahan sa pisikal, sosyal o ekonomikanhong risgo. Kung pananglitan adunay mga pangutana nga personal ra kaayo o kung dili ka komportable, mamahimong dili ka motubag o mobalibad sa pagtubag sa bisan asa o sa tanang mga pangutana ug moatras sa pag-apil sa bisan unsang panahon nga imong gusto.)*
Benefits *(Kaayohan)*	This study will allow you to share valuable insights and deepen understanding of the factors that influence vaccination adherence among the elderly. Therefore, your responses are highly appreciated and considered important in shaping nursing practices and public health strategies. *(Ang maong pagtuon magahatag kanimo og kahigayonan nga ipaambit ang mahal nga kasayuran ug mosanong sa pagsabot sa mga butang nga nakaimpluwensya sa pagsunod sa mga tigulang sa pagbakuna. Busa, ang imong mga tubag dako og bili ug giisip nga importante sa pagpalambo sa praktis sa pag-nars ug mga estratehiya sa pampublikong kahimsog.)*
Reimbursements *(Hulip nga bayad)*	There will be no monetary expenses or costs on your part as a respondent, nor any monetary compensation for your participation in this study. *(Wala kay magasto sa imong pag-apil niini nga pagtuon ug dili usab ka bayaran ug kwarta sa imong pag-apil niini nga pagtuon.)*

Confidentiality of Data *(Pagamping sa Datos)*	Only the researcher will have access to the information and responses of the participants. The personal identifying information of the respondents will only be used for research analysis and will be treated with the utmost confidentiality. During the study, all data will be kept in a locked, secure filing cabinet, of which will be discarded 6 months after the publication of the results. *(Ang nagtuon lamang ang makakita sa mga impormasyon ug tubag sa respondents. Ang mga datos nga makuha i-analisa ug hatagan og tumang pag-amping aron dili ibutyag. Sa panahon sa pagtuon, ipahimutang sa usa ka selyadong filing cabinet ang tanang datos nga pagagub-on human sa 6 kabulan gikan sa pag-publish sa resulta.)*
Sharing of Findings *(Pagpaambit sa Nakaplagan)*	The results of this study will be presented during the thesis/dissertation final defense of the researcher. Also, the research findings may be shared through publications and conferences with the assurance that the identities of the respondents will remain confidential. A printed copy of the completed study will be provided to the participants. *(Ang mga resulta niini nga pagtuon ipresenta sa panahon sa final defense sa thesis/ dissertation sa nagtuon. Ang mga nakaplagan sa pagtuon posible nga ipaambit pinaagi sa mga publications ug conferences nga adunay kapanigurohan nga dili mabutyag ang pagkatawo sa mga partisipante. Pagahatagan og isa ka giimprinta nga kopya sa kumpleto nga pagtuon ang mga partisipante.)*
Rights to Refuse or Withdraw *(Katungod sa Pagpalibabad o Pag-undang)*	You are free to withdraw or terminate participation at any stage of the study, without the need to give any reason. You will not be penalized in case of termination of participation. *(Gawasnon ka nga moatras or moundang sa pag-apil sa bisan asa nga punto sa pagtuon nga dili na magkinahanglan pa ug rason. Dili ka ipamulta sa pag-atras o pag-undang.)*

Who to Contact (Kinsa ang Kontakon)	Should there be any queries as a respondent, you can contact the researcher through the following details: *(Kung adunay mga pangutana, mamhimo nga mokontak pinaagi aning mga detalye:)* Name of the Researcher/s (Ngalan sa Nagtuon): **Lyka Ariana B. Fermin, Heart M. Fernandez, Abygail A. Hamac, Christine G. Lucresia, Michailah Gale T. Navales** Cellphone Number/s: 09123736575 e-mail ad: lykaarianafermin13@gmail.com STATEMENT BY THE RESEARCHER (PAGPADAYAG SA NAGTUON) We will read the Information sheet to the potential respondents. To the best of our ability, we make sure that the respondents will understand the questionnaire and that possible follow-up questions may be undertaken. *(Among pagabasahon ang mga nasulat niining Information Sheet ngadto sa potensyal nga partisipante. Kutob sa akong mahimo siguroon nako nga masabtan sa partisipante ang mga pangutana sa interview ug ang possible nga follow-up nga interviews.)* We can assure that the respondent will be given an opportunity to ask questions about the study, and all the questions raised will be answered fully. We can likewise assure that the respondent will not be coerced into giving consent that must be free and voluntary. *(Among gisiguro nga ang partisipante mahatagan og panahon sa pagpangutana kabahin niiining pagtuon og ang tanang pangutana nga iyang gihatag matubag sa hingpit. Siguroon ko usab ang maong partisipante dili mapugos sa paghatag sa pagtugot nga*

	kinahanglan nga gawasnon og boluntaryo.) A copy of this Informed Consent Form will be provided to the respondent. (Ang kopya sa niining Informed Consent Form ihatag ngadto sa respondent.) Print Name of Researchers (Ngalan sa Nagtuon): Lyka Ariana B.Fermin, Heart M. Fernandez, Abygail A. Hamac, Christine G. Lucresia, Michailah Gale T. Navales

This research entitled "Enablers, Barriers, and Adherence to Vaccination Among Elderly" with the aim of gathering information and data pertaining to examine the relationship between enablers and barriers to vaccination in terms of accessibility, perceived benefits, and the adherence of elderly individuals to recommended immunization schedules. Additionally, it seeks to assess how factors like vaccine availability, awareness programs, and healthcare system efficiency influence vaccine uptake among the elderly within the community and healthcare facility. Since the study involves answering a questionnaire about the enablers and barriers to vaccination, such as accessibility, perceived benefits, and healthcare system efficiency, I am chosen as one of the respondents to help provide insights into the factors affecting vaccine adherence among the elderly.

(Ang kini nga panukiduki nga giulohan og "Enablers, Barriers, and Adherence to Vaccination Among Elderly" nagtumong sa pagtipig og impormasyon ug datos aron masusi ang kalambigitan tali sa mga nakapasiugda ug babag sa pagpabakuna sa aspeto sa aksesibilidad, gituohang benepisyo, ug ang pagsunod sa mga tigulang sa girekomendang iskedyul sa immunisasyon. Dugang pa, gitumong usab sa pagtuon ang pagtimbang-timbang kung giunsa sa mga butang sama sa pagkabutang sa bakuna, mga programa sa pagpahibalo, ug kahusayan sa sistema sa panglawas ang ilang epekto sa pagpabakuna sa mga tigulang sulod sa komunidad ug pasilidad sa panglawas. Tungod kay ang maong pagtuon naglakip sa pagtubag sa usa ka questionnaire bahin sa mga nakapasiugda ug babag sa pagpabakuna—sama sa aksesibilidad, gituohang benepisyo, ug kahusayan sa serbisyo sa panglawas—napili ako isip usa sa mga tinubag aron makatampo sa pagsabot sa mga hinungdan nga nakaapekto sa pagsunod sa pagpabakuna sa mga tigulang).

I have read the foregoing Informed Consent Form, or it has been read to me. I had the opportunity to ask questions, which were subsequently answered fully. I consent voluntarily to be a respondent of this study.

(Akong nabasa ang nauna nga Informed Consent Form, o gibasa kini kanako.

Natagaan ako og higayon nga makapangutana nga natubag sa hingpit. Ako mosugot

nga boluntaryo nga mahimong respondent sa niining pagtuon.)

Print Name of Respondent (Ngalan sa Partisipante): _____

Signature of Respondent (Pirma sa Partisipante): _____

Date:
[MM/DD/YYYY]_____

If Illiterate (Kung dili makasulat ug makabasa)

If the respondent is illiterate, a witness who is literate will sign. The respondent will choose him/ her and who is without connection with the researcher or the research group to attest this undertaking. The respondent will affix his thumb print.

[Kung ang participant kay dili makabasa o makasulat, mopirma ang usa ka makabasa ug makasulat nga testigo. Ang respondent ang mopili kaniya nga walay koneksyon sa nagtuon o sa iyang grupo para mopamatuod sa gimbuhaton. Ang respondent mobutang sa iyang tamla (thumb print)].

_____

Name and Signature of the Witness

(Ngalan ug Pirma sa Testigo)

APPENDIX E - Approved Letters of Consent

Letter for the Dean:

MISAMIS UNIVERSITY
Ozamiz City 7200, Philippines

College of Nursing, Midwifery, and Radiologic Technology
Tel No. +63 88 521-0367 / Telefax No. +63 88 521-2917
E-mail Address: mu@mu.edu.ph

CERTIFIED: ISO 21001:2018 Risk Management – Det Norske Veritas, The Netherlands
ACCREDITED: Philippine Association of Colleges and Universities Commission On Accreditation (PACUCOA)

DR. SAMMY B. TAGHOY
Dean, College of Nursing, Midwifery, and Radiologic Technology
Misamis University

Dear Dr. Taghoy,

Good day!

We, the undersigned are third year students from Misamis University, Ozamiz City, taking Bachelor of Science in Nursing. As part of our academic requirements, we are currently conducting a research study entitled "Enablers, Barriers and Adherence to Vaccination Among Elderly." This study aims to examine the relationship between enablers and barriers to vaccination in terms of accessibility, perceived benefits, and the adherence of elderly individuals to recommended immunization schedules. Additionally, it seeks to assess how factors like vaccine availability, awareness programs, and healthcare system efficiency influence vaccine uptake among the elderly within the community and healthcare facility.

In line with this, we respectfully seek approval from your esteemed office to conduct our research in Tangub City, Misamis Occidental, specifically in Barangay Maquilao and Barangay San Vicente.

Please be assured that all information obtained will be treated with the utmost confidentiality and used solely for academic purposes.

We appreciate your time and consideration of our request.

Thank you, and May the Lord bless you!

Sincerely yours,

ABYGAIL HAMAC

LYKA ARIANA B. FERMIN

HEART M. FERNANDEZ

CHRISTINE G. LUCRESIA

MICHAILAH GALE T. NAVALES

Noted by:

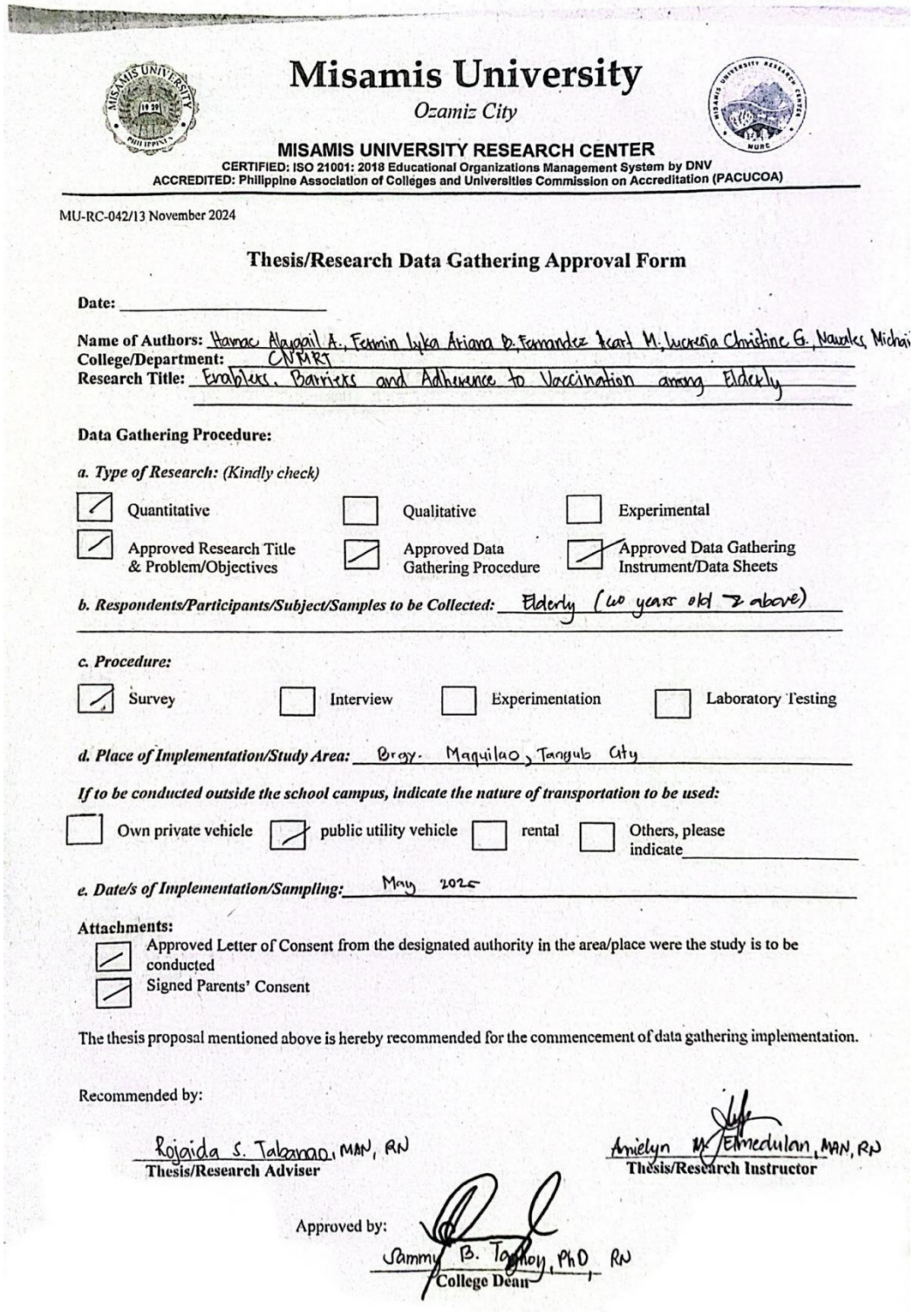
ROJAIDA S TABANAO MAN, RN
Research Adviser

Approved by:

SAMMY B. TAGHOY, PhD, RN
College Dean

APPENDIX E – Cont'd

Approval Form:



Misamis University

Ozamiz City

MISAMIS UNIVERSITY RESEARCH CENTER

CERTIFIED: ISO 21001: 2018 Educational Organizations Management System by DNV
ACCREDITED: Philippine Association of Colleges and Universities Commission on Accreditation (PACUCOA)

MU-RC-042/13 November 2024

Thesis/Research Data Gathering Approval Form

Date: _____

Name of Authors: Hamac Alyssail A., Fermin Lyka Ariana B. Fernandez Jean M. Lucresia Christine G. Nawales, Michai
College/Department: CNMRT
Research Title: Enablers, Barriers and Adherence to Vaccination among Elderly

Data Gathering Procedure:

a. Type of Research: (Kindly check)

- [x] Quantitative
- [ ] Qualitative
- [ ] Experimental
- [x] Approved Research Title & Problem/Objectives
- [x] Approved Data Gathering Procedure
- [x] Approved Data Gathering Instrument/Data Sheets

b. Respondents/Participants/Subject/Samples to be Collected: Elderly (60 years old & above)

c. Procedure:

- [x] Survey
- [ ] Interview
- [ ] Experimentation
- [ ] Laboratory Testing

d. Place of Implementation/Study Area: Brgy. Maquilao, Tangub City

If to be conducted outside the school campus, indicate the nature of transportation to be used:

- [ ] Own private vehicle
- [x] public utility vehicle
- [ ] rental
- [ ] Others, please indicate _____

e. Date/s of Implementation/Sampling: May 2025

Attachments:

- [x] Approved Letter of Consent from the designated authority in the area/place were the study is to be conducted
- [x] Signed Parents' Consent

The thesis proposal mentioned above is hereby recommended for the commencement of data gathering implementation.

Recommended by:

Rojaida S. Tabanao, MAN, RN
Thesis/Research Adviser

Anielyn M. Etmedulan, MAN, RN
Thesis/Research Instructor

Approved by:

Sammy B. Tagnoy, PhD, RN
College Dean

APPENDIX E –Cont'd

Letter for the Barangay:

MISAMIS UNIVERSITY
Ozamiz City 7200, Philippines

College of Nursing, Midwifery, and Radiologic Technology
Tel No. +63 88 521-0367 / Telefax No. +63 88 521-2917
E-mail Address: mu@mu.edu.ph

CERTIFIED: ISO 21001:2018 Risk Management – Det Norske Veritas, The Netherlands
ACCREDITED: Philippine Association of Colleges and Universities Commission On Accreditation (PACUCOA)

April 04, 2025

HON. JUAN L. SOLATORIO
Barangay Captain
Barangay Maquilao
Tangub City, Misamis Occidental

Dear Hon. Solatorio,

Greetings of Peace!

We, the undersigned are third year students from Misamis University, Ozamiz City, taking Bachelor of Science in Nursing. As part of our academic requirements, we are currently conducting a research study entitled "Enablers, Barriers and Adherence to Vaccination Among Elderly." This study aims to examine the relationship between enablers and barriers to vaccination in terms of accessibility, perceived benefits, and the adherence of elderly individuals to recommended immunization schedules. Additionally, it seeks to assess how factors like vaccine availability, awareness programs, and healthcare system efficiency influence vaccine uptake among the elderly within the community and healthcare facility.

In line with this, we respectfully seek approval from your esteemed office to conduct our research in your barangay, Barangay Maquilao, covering Purok 1, 2, 3, 4, 5, and 6.

Please be assured that all information obtained will be treated with the utmost confidentiality and used solely for academic purposes.

We are hoping that this request may merit a favorable response. Keep safe and more power!

Asenso Tangub!

Sincerely yours,

ABYGAIL LAMAC

LYKA ARIANE B. FERMIN

HEART M. FERNANDEZ

CHRISTINE G. LUCRESIA

MICHAILAH GALE T. NAVALES

Noted by:

ROJAIDA S TABANAO MAN, RN
Research Adviser

SAMMY B. TAGHOY, PhD, RN
College Dean

Approved by:

HON. JUAN L. SOLATORIO
Brgy. Captain of Barangay Maquilao

MISAMIS UNIVERSITY
Ozamiz City 7200, Philippines

College of Nursing, Midwifery, and Radiologic Technology
Tel No. +63 88 521-0367 / Telefax No. +63 88 521-2917
E-mail Address: mu@mu.edu.ph

CERTIFIED: ISO 21001:2018 Risk Management – Det Norske Veritas, The Netherlands
ACCREDITED: Philippine Association of Colleges and Universities Commission On Accreditation (PACUCOA)

May 06, 2025

HON. JACINTO H. PETILUNA
Barangay Captain
Barangay San Vicente
Tangub City, Misamis Occidental

Dear Hon. Petiluna,

Greetings of Peace!

We, the undersigned are third year students from Misamis University, Ozamiz City, taking Bachelor of Science in Nursing. As part of our academic requirements, we are currently conducting a research study entitled "Enablers, Barriers and Adherence to Vaccination Among Elderly." This study aims to examine the relationship between enablers and barriers to vaccination in terms of accessibility, perceived benefits, and the adherence of elderly individuals to recommended immunization schedules. Additionally, it seeks to assess how factors like vaccine availability, awareness programs, and healthcare system efficiency influence vaccine uptake among the elderly within the community and healthcare facility.

In line with this, we respectfully seek approval from your esteemed office to conduct our research in your barangay, Barangay San Vicente.

Please be assured that all information obtained will be treated with the utmost confidentiality and used solely for academic purposes.

We are hoping that this request may merit a favorable response. Keep safe and more power!

Asenso Tangub!

Sincerely yours,

ABYGAIL HAMAC

LYKA ARIANA B. FERMIN

HEART M. FERNANDEZ

CHRISTINE G. LUCRESIA

MICHAILAH GALE T. NAVALES

Noted by:

ROJAIDA S TABANAO MAN, RN
Research Adviser

SAMMY B. TAGHOY, PhD, RN
College Dean

Approved by:

HON. JACINTO H. PETILUNA
Brgy. Captain of Barangay San Vicente

APPENDIX F –Statistical Computations

Final Results:

Respondents' Enablers to Vaccination

Table 1
Respondents' Enablers to Vaccination
(n=204)

Enablers to Vaccination	Mean	StDev	I
Trust in Healthcare Providers	4.06	1.02	H
Health Literacy and Education	3.83	1.04	H
Perceived Vulnerability to Disease	3.79	1.01	H
Overall Mean	**3.89**	**1.02**	**H**

Legend: *4.21- 5.00 – Very High (VH)* *1.81- 2.60 – Poor (P)*
3.41- 4.20 – High (H) *1.00- 1.80 – Very Poor (VP)*
2.61- 3.40 – Moderately High (MH)

Respondents' Barriers to Vaccination

Table 2
Respondents' Barriers to Vaccination
(n=204)

Barriers to Vaccination	Mean	StDev	I
Misinformation and Fear	3.34	0.96	MH
Access to Healthcare	3.47	1.10	H
Cultural and Social Beliefs	3.53	1.14	H
Overall Mean	**3.45**	**1.07**	**H**

Legend: *4.21- 5.00 – Very High (VH)* *1.81- 2.60 – Poor (P)*
3.41- 4.20 – High (H) *1.00- 1.80 – Very Poor (VP)*
2.61- 3.40 – Moderately High (MH)

Respondents' Adherence to Vaccination

Table 3:
Respondents' Adherence to Vaccination
(n=204)

Adherence to Vaccination	Mean	StDev	I
Timelines of vaccination	3.57	1.15	G
Repeat vaccination	3.58	1.15	G
Overall Mean	**3.58**	**1.15**	**G**

Legend: *4.21- 5.00 – Very Good (VG)* *1.81- 2.60 – Poor (P)*
3.41- 4.20 – Good (G) *1.00- 1.80 – Very Poor (VP)*
2.61- 3.40 – Moderately Good (MG)

Significant Relationship Between Perceived Enablers and Adherence to Vaccination Among Elderly.

Table 4: Significant Relationship Between Perceived Enablers and Adherence to Vaccination Among Elderly.

Variables	r-value	p-value	Remarks
Trust in Healthcare Providers and:			
Timelines of vaccination	0.799	0.00**	Reject Null Hypothesis
Repeat vaccination	0.795	0.00**	Reject Null Hypothesis
Health Literacy and Education and:			
Timelines of vaccination	0.829	0.00**	Reject Null Hypothesis
Repeat vaccination	0.807	0.00**	Reject Null Hypothesis
Perceived Vulnerability to Disease and:			
Timelines of vaccination	0.791	0.00**	Reject Null Hypothesis
Repeat vaccination	0.781	0.00**	Reject Null Hypothesis

Ho1: There is no significant relationship between perceived enablers and adherence to vaccination among elderly.

*Legend: 0.00-0.01** Highly Significant, 0.02-0.05* Significant, above 0.05 Not Significant*

Significant Relationship Between Barriers to Vaccination and Adherence to Vaccination Among Elderly.

Table 5: Significant Relationship Between Barriers to Vaccination and Adherence to Vaccination Among Elderly.

Variables	r-value	p-value	Remarks
Misinformation and Fear and:			
Timelines of vaccination	0.691	0.00**	Reject Null Hypothesis
Repeat vaccination	0.685	0.00**	Reject Null Hypothesis
Access to Healthcare and:			
Timelines of vaccination	0.893	0.00**	Reject Null Hypothesis
Repeat vaccination	0.906	0.00**	Reject Null Hypothesis
Cultural and Social Beliefs and:			
Timelines of vaccination	0.892	0.00**	Reject Null Hypothesis
Repeat vaccination	0.892	0.00**	Reject Null Hypothesis

Ho2: There is no significant relationship between barriers to vaccination and adherence to vaccination among elderly.

*Legend: 0.00-0.01** Highly Significant, 0.02-0.05* Significant, above 0.05 Not Significant*

APPENDIX F – Cont'd

Pilot Testing Results:

Enablers to Vaccination

- Trust in Healthcare Providers

Cronbach's alpha = 0.9049

Omitted Item Statistics

Omitted Variable	Adj. Total Mean	Adj. Total StDev	Item-Adj. Total Corr	Squared Multiple Corr	Cronbach's Alpha
TH1	14.900	3.024	0.7241	0.6589	0.8953
TH2	15.050	2.892	0.7198	0.6873	0.8925
TH3	15.100	2.864	0.8235	0.7901	0.8721
TH4	15.250	2.731	0.7362	0.7768	0.8955
TH5	15.300	2.736	0.8588	0.8736	0.8617

- Health Literacy and Education

Cronbach's alpha = 0.9611

Omitted Item Statistics

Omitted Variable	Adj. Total Mean	Adj. Total StDev	Item-Adj. Total Corr	Squared Multiple Corr	Cronbach's Alpha
HL1	13.300	3.975	0.8171	0.8183	0.9642
HL2	13.250	3.972	0.9255	0.9091	0.9466
HL3	13.400	3.899	0.9192	0.8990	0.9469
HL4	13.450	3.980	0.8917	0.8959	0.9517
HL5	13.400	3.912	0.9036	0.8795	0.9496

- Perceived Vulnerability to Disease

Cronbach's alpha = 0.9173

Omitted Item Statistics

Omitted Variable	Adj. Total Mean	Adj. Total StDev	Item-Adj. Total Corr	Squared Multiple Corr	Cronbach's Alpha
PV1	12.900	3.905	0.7025	0.6271	0.9151
PV2	13.050	3.913	0.6581	0.5678	0.9230
PV3	13.700	3.686	0.8359	0.7959	0.8887
PV4	13.600	3.676	0.8527	0.9066	0.8853
PV5	13.550	3.486	0.9033	0.9421	0.8741

Barriers to Vaccination

- Misinformation and Fear

Cronbach's alpha = 0.9423

Omitted Item Statistics

Omitted Variable	Adj. Total Mean	Adj. Total StDev	Item-Adj. Total Corr	Squared Multiple Corr	Cronbach's Alpha
M1	13.550	3.967	0.7607	0.5882	0.9437
M2	13.650	3.631	0.8529	0.7915	0.9292
M3	13.750	3.712	0.8341	0.7246	0.9312
M4	13.400	3.691	0.9181	0.8694	0.9150
M5	13.450	3.818	0.8817	0.7981	0.9234

- Access to Healthcare

Cronbach's alpha = 0.9688

Omitted Item Statistics

Omitted Variable	Adj. Total Mean	Adj. Total StDev	Item-Adj. Total Corr	Squared Multiple Corr	Cronbach's Alpha
A1	12.850	4.308	0.8763	0.8580	0.9667
A2	12.950	4.298	0.9202	0.9055	0.9597
A3	12.850	4.234	0.9564	0.9386	0.9538
A4	12.800	4.275	0.9471	0.9579	0.9555
A5	12.750	4.351	0.8520	0.8949	0.9703

- Cultural and Social Beliefs

Cronbach's alpha = 0.9812

Omitted Item Statistics

Omitted Variable	Adj. Total Mean	Adj. Total StDev	Item-Adj. Total Corr	Squared Multiple Corr	Cronbach's Alpha
C1	13.550	3.706	0.9819	0.9806	0.9708
C2	13.600	3.662	0.9780	0.9719	0.9717
C3	13.600	3.747	0.9347	0.9096	0.9780
C4	13.650	3.951	0.8925	0.8207	0.9856
C5	13.600	3.733	0.9524	0.9517	0.9753

Adherence to Vaccination

- Timelines of vaccination

Cronbach's alpha = 0.9832

Omitted Item Statistics

Omitted Variable	Adj. Total Mean	Adj. Total StDev	Item-Adj. Total Corr	Squared Multiple Corr	Cronbach's Alpha
TV1	18.950	6.645	0.9567	0.9351	0.9795
TV2	19.150	6.831	0.9343	0.8905	0.9805
TV3	19.100	6.656	0.9613	0.9383	0.9790
TV4	19.000	6.759	0.9399	0.9123	0.9802
TV5	18.900	6.797	0.9115	0.9107	0.9821
TV6	18.600	6.962	0.9660	0.9710	0.9798
TV7	18.600	6.992	0.9316	0.9402	0.9817

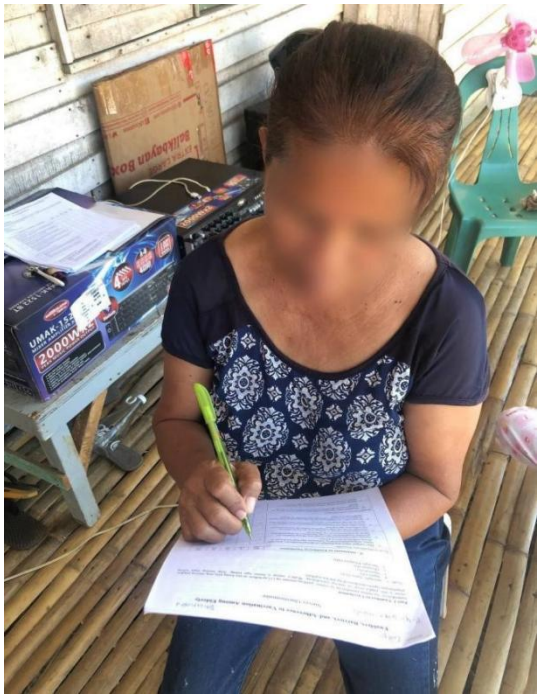
- Repeat vaccination

Cronbach's alpha = 0.9803

Omitted Item Statistics

Omitted Variable	Adj. Total Mean	Adj. Total StDev	Item-Adj. Total Corr	Squared Multiple Corr	Cronbach's Alpha
RV1	23.150	7.184	0.8714	0.8991	0.9798
RV2	23.150	7.013	0.9557	0.9877	0.9756
RV3	23.200	6.978	0.9594	0.9848	0.9755
RV4	23.150	7.013	0.9557	0.9348	0.9756
RV5	23.000	7.101	0.9337	0.9381	0.9767
RV6	23.050	7.215	0.9203	0.9611	0.9776
RV7	23.100	7.144	0.9023	0.9648	0.9783
RV8	23.000	7.356	0.8675	0.8905	0.9805

APPENDIX G –Documentations (Photos)



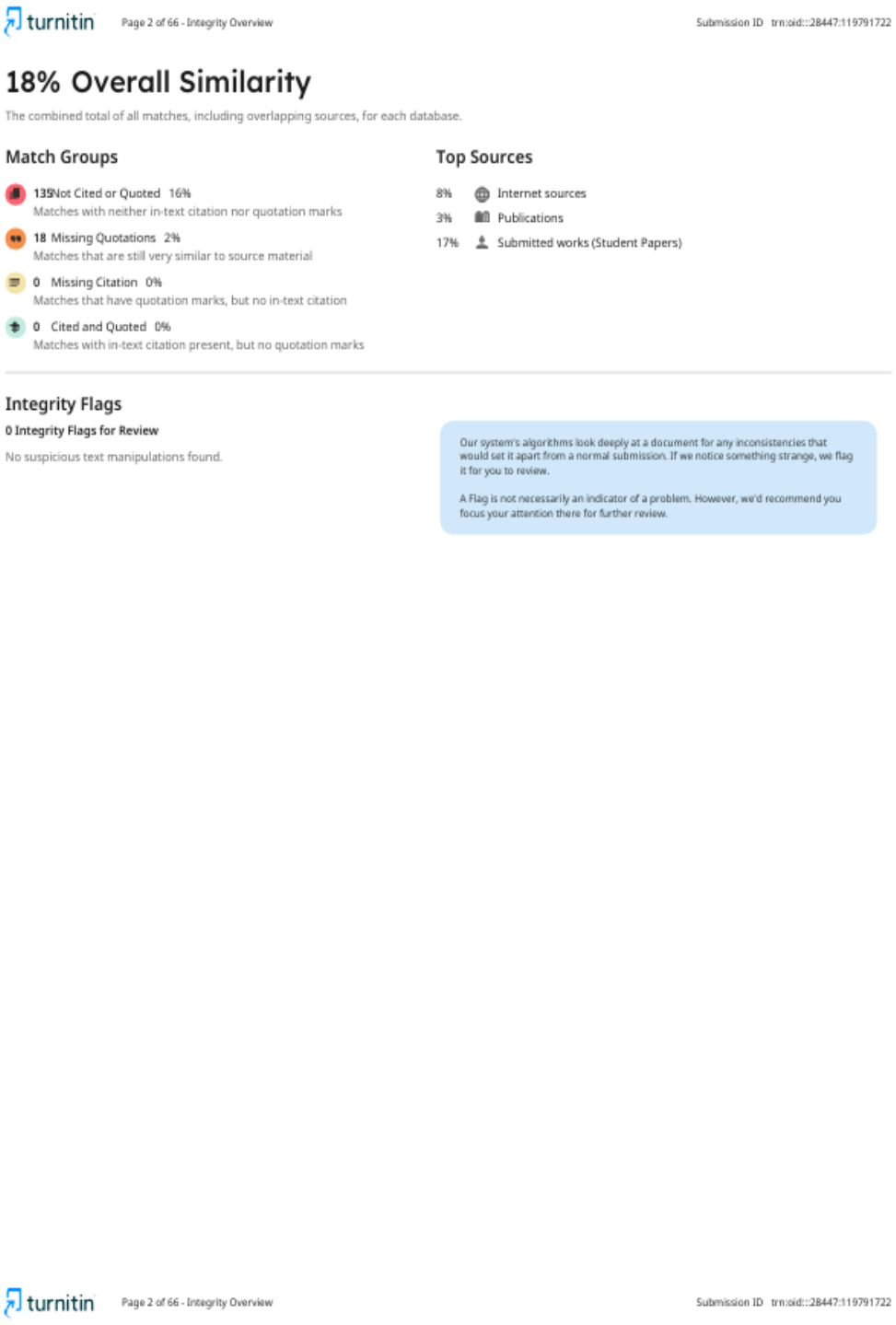
APPENDIX G - Cont'd

APPENDIX G - Cont'd

APPENDIX G - Cont'd

APPENDIX G - Cont'd

APPENDIX H – Grammarly Report, and Turnitin Results



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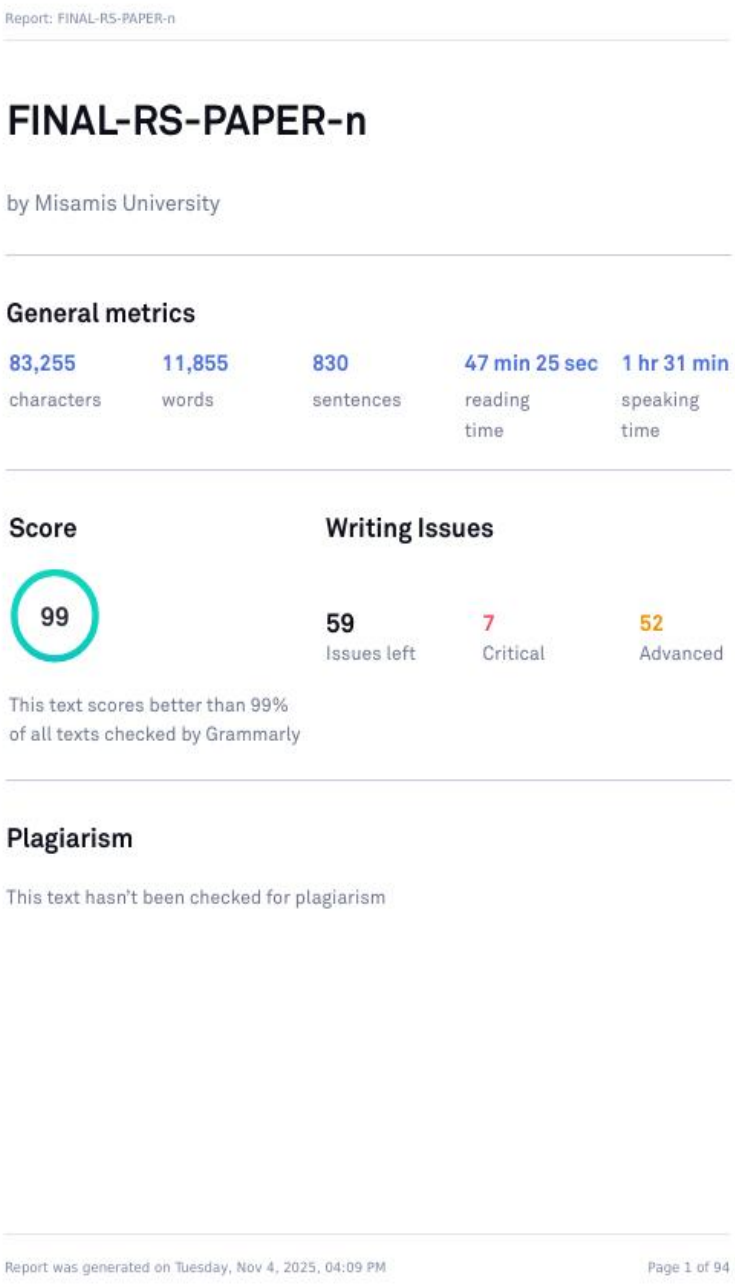
APPENDIX H – Cont'd



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