

COMMUNITY AWARENESS OF WARNING SIGN, RISK FACTORS AND TREATMENT OF TUBERCULOSIS IN SELECTED BARANGAY IN DAVAO DE ORO

Lovelene Joy L. Mejarito

ABSTRACT

This study investigates the demographic profile, health risk factors, community awareness, and treatment levels among a sample population. Data were collected from 360 respondents using structured surveys. Findings reveal that the majority of respondents are aged 30 years or older, with a significant proportion being 51 years or older. Females represent a higher percentage of respondents compared to males. Marriage is the predominant marital status, with a notable portion reporting unemployment. Most respondents earn a monthly income of less than 5,000 PHP, and a substantial majority are self-employed or students. Health risk factors, smoking and alcohol consumption are prevalent among respondents. A considerable number have a history of tuberculosis, heart failure, HIV, diabetes, and chronic failure. Healthcare utilization is moderately common, with COPD reported in a significant proportion of respondents. Community treatment levels are generally high, particularly in tuberculosis treatment availability and effectiveness. However, adherence to a bland diet during tuberculosis treatment is rated as moderate. Chi-square tests reveal significant differences between demographic factors (age, gender, marital status, socioeconomic status, education, and occupation) and various health-related variables.

Keywords: *Community Awareness of Warning Sign, Risk Factors, Treatment, Tuberculosis, Davao de Oro*

INTRODUCTION

Tuberculosis (TB) remains a majority public health biggest challenges globally, particularly in developing countries where socio-economic factors often exacerbate the burden of the disease. In the Philippines, TB continues to be a significant health concern despite numerous efforts by the government and various organizations to curb its spread and impact. The municipality of Montevista, located in the province of Davao de Oro, is no exception. Within Montevista, Barangay Poblacion stands as a perilous zone for understanding the local dynamics of TB awareness, risk factors, and treatment adherence.

The importance of community awareness in the fight against TB cannot be exaggerated. Awareness of the warning signs of TB can lead to prompt diagnosis

and treatment, which is pivotal for preventing the spread of the disease. Moreover, understanding the risk factors associated with TB—such as close contact with infected individuals, compromised immune systems, and socio-economic determinants—can help in the development of targeted interventions aimed at those most vulnerable.

To ensure good outcomes, it is also crucial to understand the different treatment options and the significance of adhering to TB medication regimens. Disregarding treatment guidelines not only compromises the health of the person but also fosters the emergence of drug-resistant tuberculosis strains, which provide a more formidable obstacle to public health initiatives.

This study aims to evaluate the degree of community awareness of the warning signs, risk factors, and treatment of tuberculosis. This study examines community views and current knowledge to find possibilities and gaps for improved public health education and intervention techniques.

These study findings offer insightful information, campaigns, and the development of additional programs especially intended to fulfill the needs of Barangay Poblacion, which can benefit greatly from a greater understanding of community awareness levels. Ultimately, this research contributes to the broader goal of reducing the incidence and impact of TB in Montevista and similar communities.

Statement of the Problem

This study determined the relationship among the community in Barangay, Población, Montevista, Davao de Oro on warning sign, risk factor and treatment for Tuberculosis. Specifically, it answer, the following questions:

1. What is the demographic data of the respondents in terms of;
 - 1.1 age
 - 1.2 sex
 - 1.3 marital status
 - 1.4 socio – economic status
 - 1.5 education
 - 1.6 occupational class
2. What is the level of Community Awareness about Tuberculosis in terms of:
 - 2.1 warning signs;
 - 2.2 risk factors; and
 - 2.3 treatment
2. Is there a significant difference in the level of community awareness in the warning signs, risk factor and treatment of tuberculosis when analyzed according to profile?

FRAMEWORK

This study is anchored on Environmentalist theory, developed by Florence Nightingale, this theory emphasizes the importance of environmental factors in disease prevention. Nightingale's theory emphasizes the importance of basic sanitation, ventilation, personal hygiene, and handwashing in preventing diseases like tuberculosis (Almeida, 2020). This theory emphasizes the interaction of the individual, the nurse, and the environment, emphasizing their respective roles in health promotion (Medeiros, Enders, & Lira, 2015). Another theory is the Dorothea Orem's Theory of Self-Care Deficit, this theory focuses on an individual's ability to perform self-care activities. In the case of tuberculosis, this theory emphasizes the importance of nursing intervention when a person's self-care abilities are insufficient to meet their needs. Nurses play an important role in educating patients on preventive measures such as hand hygiene, respiratory etiquette, and staying away from people who have respiratory symptoms (Almeida, 2020).

Finally, The Callista Roy's adaptation model sheds light explains on how individuals, families, and communities respond to stimuli, including health challenges such as tuberculosis. This model emphasizes the importance of managing focal stimuli like respiratory symptoms, contextual stimuli like comorbidities, and residual stimuli in order to promote adaptation and coping (Coura, 2020). By integrating these theories, the study provides a comprehensive framework for understanding and treating tuberculosis in a variety of healthcare settings.

METHOD

Research Design

A quantitative descriptive-comparative research design was used to address the study's problems and achieve its purpose. The researcher considers two variables that are not manipulated and establishes a formal procedure to conclude that one is better than the other. Descriptive design was used to receive information concerning the current status of the described phenomena (Shuttleworth, 2018). It involves analyzing and interpreting the data gathered. Descriptive design ranges from a cross-sectional survey (at one or multiple points in time) to comparative design (comparing two groups) to correlations (relationship between two variables). Comparative design is differences in variables that occur naturally between two or more cases, subjects, and units of the study. A researcher who utilizes a comparative design mostly poses a hypothesis about the differences in a variable between or among two or more units. This study engaged a cross-sectional descriptive design using a self-report questionnaire.

Research Respondents

The respondent of this study was limited to 360 residents of Barangay Población, Montevista, Davao de Oro, and must be eighteen (18) years of age and above who have participated which were selected using the purposive sampling technique. This technique is a form of non-probability sampling in which decisions concerning the individuals to be included in the sample are taken by the researcher, based upon a variety of criteria which may include specialist knowledge of the research issue, or capacity and willingness to participate in the research (Oliver, 2006).

Research Instruments

Sets of survey questionnaires were used to gather data from the respondents. This questionnaire assessed community awareness about Tuberculosis in terms of the warning signs and risk factors. Part one of the questionnaire included the individual (living in the community) demographic information, such as age, gender, marital status, socio-economic status, education, and occupational class. Part two was the information about Tuberculosis. This study asked what the respondent knew about Tuberculosis and how the respondent believes it should be prevented. Further, it assessed awareness about Tuberculosis in terms of warning signs, risk factors, and preventive methods. It contained 18 statements Likert scale questions.

Statistical tools

The following statistical tools were used in the study:

Mean and Standard Deviation was used to determine the level of infectious prevention and control.

Descriptive Statistics was used to measure of central tendency and measures of variability of the demographic profile.

One-way ANOVA was used to compare means across multiple groups and determine if at least one of the group means significantly differs from the others.

RESULTS AND DISCUSSION

Demographic Profile

Table 1 shows the distribution of respondents in terms of age, sex, marital, education, validity and occupation. Out from a total of 360 respondents, the findings indicate that age 51 and above have the largest representation between ages ($f=91$, 25.3%), while ages 18-20 have the lowest ($f=57$, 15.8%). This indicates that ages 51 above make up the majority of the total respondents. This finding coincide with the study of Dillman et al., (2020) that age differences in response behaviors found that older adults tend to respond more frequently than younger cohorts. Factors such as increased availability of time, a stronger sense of civic duty, and familiarity with traditional survey methodologies may all contribute to higher participation among older people.

In terms of gender. The findings from a total of 360 respondents show that females have the highest gender representation ($f=232$, 64.4%), while males have the lowest ($f=128$, 35.6%). This indicates that females account for the majority of total respondents. This suggests that societal norms and cultural expectations about gender roles and responsibilities can influence research participation rates. Women may be more accustomed to caregiving and communication activities, which may translate into a greater willingness to respond to survey requests (Tourangeau & Plewes, 2018). However, the gender disparity observed in survey samples raises concerns about the generalizability and representativeness of study findings, especially in research areas where gender differences are significant. furthermore, studies on health behaviors, attitudes toward gender equality, or consumer product preferences may produce biased results if one gender is significantly underrepresented (Fan & Yan 2019).

In the aspect of marital status. The results show that, among the 360 respondents, married people are most represented ($f=207$, 57.5%), while separated people are least represented ($f=8$, 2.2%). This suggests that married people account for the majority of all responders.

In terms of socio-economic. The results show that, among the 360 respondents, below 5k are most represented ($f=204$, 56.7%), while 15001 and above are least represented ($f=25$, 6.9%). This suggests that below 5k account for the majority of all respondents. These findings support the study of Groves et al., (2019) that married individuals may exhibit higher levels of stability, social integration, and a sense of responsibility, which could increase their likelihood of participating. furthermore, also in the study of Fan et al., (2020) that marital status may influence individuals' perceptions of relevance and interest, with married individuals potentially viewing participation as more pertinent to their lives due to shared responsibilities and decision-making processes within the household.

In the aspect of education. The results show that, among the 360 respondents college/bachelor's degree are most represented ($f=153$, 42.5%),

while master/doctor's degree are least represented (f=3, 8%). This suggests that college/bachelor's degree account for the majority of all responders.

In terms of occupation the distribution of the respondents. The results show that, among the 360 respondents. self-employed are most represented (f=126, 35%), while unable to work are least represented (f=6, 1.7%). This suggests that unemployed account for the majority of all responders. These findings are consistent with the study of Smith and Jones (2019) that unemployment and its effects on various demographic groups. Unemployment has been extensively studied in terms of its impact on people's mental health, socioeconomic status, and overall well-being. Furthermore, Brown and White (2020) emphasize the role of systemic barriers such as limited access to education and training opportunities, discrimination, and economic inequality in perpetuating unemployment among certain demographic groups.

Table 1 Demographic Profile of Respondents

		Frequency	Percent
Age	18-22	57	15.8
	23-29	62	17.2
	30-40	78	21.7
	41-50	72	20.0
	51 above	91	25.3
Sex	Male	128	35.6
	Female	232	64.4
Marital	Single	128	35.6
	Married	207	57.5
	Widow	17	4.7
	Separated	8	2.2
Education	Elem. Grad.	37	10.3
	HS Undergrad.	57	15.8
	HS Grad.	88	24.4
	College/Bachelor's Degree	153	42.5
	Master/Doctor's Degree	3	.8
	Vocational	22	6.1
Socio Economic	Below 5k	204	56.7
	5001 - 10k	92	25.6
	10001 - 15k	39	10.8
	15001 and above	25	6.9
Occupation	Student	61	16.9
	Self employed	126	35.0
	Employed	82	22.8
	Unemployed	85	23.6
	Unable to work	6	1.7
	Total	360	100.0

Level of Community Awareness about Warning Signs of Tuberculosis

Table 2.1 shows the level of awareness in terms of warning signs of the community about tuberculosis. The level of awareness of the community contains 8 warning signs of tuberculosis. In terms of cough, out from a total of 360 respondents, the findings indicate that present of cough symptoms have the largest representation between cough symptoms ($f=293$, .81.4%), while absent of cough symptoms have the lowest ($f=67$, 18.6%). This indicates that present of cough symptoms make up the majority of the total respondents. These findings are consistent with study of Patel and Smith (2017) discovered that cough is one of the most common respiratory symptoms reported by patients seeking medical attention for respiratory issues. Furthermore, cough severity and duration have been identified as key indicators of disease severity and prognosis in respiratory illnesses (Jones et al., 2020).

In the aspect of hemoptysis, out from a total of 360 respondents, the findings indicate that present of hemoptysis symptoms have the largest representation between hemoptysis symptoms ($f=321$, .89.2%), while absent of cough symptoms have the lowest ($f=39$, 10.8%). This indicates that present of hemoptysis symptoms make up the majority of the total respondents. The results supports in the study of Patel et al. (2019) discovered that hemoptysis is a common presenting symptom in patients with pulmonary diseases that necessitates prompt evaluation and management to determine the underlying cause and avoid potential complications. Furthermore, the high prevalence of hemoptysis symptoms among respondents highlights the need for a thorough clinical evaluation and diagnostic workup in people who present with respiratory symptoms. Early detection and management of hemoptysis can result in faster intervention and better patient outcomes (Brown & Williams, 2020).

In the aspect of chest pain, out from a total of 360 respondents, the findings indicate that present of chest pain symptoms have the largest representation between chest pain symptoms ($f=211$, .58.6%), while absent of cough symptoms have the lowest ($f=149$, 41.4%). This indicates that present of hemoptysis symptoms make up the majority of the total respondents.

In terms of cough 2 months, out from a total of 360 respondents, the findings indicate that present of cough in 2 months have the largest representation between symptoms ($f=314$, 87.2%), while absent of cough in 2 months have the lowest ($f=46$, 12.8%). This indicates that present of cough in 2 months symptoms make up the majority of the total respondents.

The results coincides with the study of Irwin et al., (2018) that cough is one of the most common symptoms associated with a wide range of respiratory conditions, including acute respiratory infections, asthma, chronic obstructive pulmonary disease (COPD), and pulmonary fibrosis (Smith & Johnson, 2019). Furthermore, Research of Kardos et al., (2020) that cough is frequently the primary complaint among patients seeking medical attention for respiratory

ailments, emphasizing its clinical importance in the assessment of respiratory health.

In terms of fever, out from a total of 360 respondents, the findings indicate that present of fever have the largest representation between symptoms ($f=252$, 70%), while absent of fever have the lowest ($f=108$, 30%). This indicates that present of fever symptoms make up the majority of the total respondents.

In terms of Loss of appetite, out from a total of 360 respondents, the findings indicate that present of loss of appetite have the largest representation between symptoms ($f=199$, 55.3%), while absent of fever have the lowest ($f=161$, 44.7%). This indicates that present of Loss of appetite make up the majority of the total respondents. The findings are consistent with Ryan et al.'s (2019) study, which found that loss of appetite is a common concern among patients and can have a significant impact on their nutritional status, quality of life, and overall outlook. Furthermore, the prevalence of loss of appetite as a reported symptom emphasizes its clinical importance as a marker of underlying health problems. Loss of appetite has been linked to inflammation, metabolic abnormalities, hormonal imbalances, and psychological factors (Lamers et al., 2018). Furthermore, loss of appetite may indicate serious illnesses such as cancer, chronic infections, or autoimmune disorders, necessitating a thorough evaluation and management by healthcare professionals (Champiat et al., 2016).

In terms of weight loss, out from a total of 360 respondents, the findings indicate that present of weight loss have the largest representation between symptoms ($f=231$, 34.2%), while absent of fever have the lowest ($f=129$, 35.8%). This indicates that present of weight loss make up the majority of the total respondents. The last is in the aspect of backpain, out from a total of 360 respondents, the findings indicate that present of backpain have the largest representation between symptoms ($f=276$, 76.7%), while absent of backpain have the lowest ($f=84$, 23.3%). This indicates that present of back pain make up the majority of the total respondents. This finding supports the study of Vos et al., (2017) that musculoskeletal disorders, which are among the leading causes of disability worldwide back pain, in particular, is a common complaint affecting individuals of all ages and can result from various factors such as poor posture, muscle strain, ligament sprain, spinal disc degeneration, and underlying medical conditions (Hartvigsen et al., 2018). Furthermore, back pain is often associated with comorbidities such as depression, anxiety, sleep disturbances, and decreased physical activity levels.

Table 2.1 Level of Community Awareness about Warning Signs of Tuberculosis

		Frequency	Percent
Cough	absent	67	18.6
	present	293	81.4
Hemoptysis	absent	39	10.8
	present	321	89.2
Chest pain	absent	149	41.4
	present	211	58.6
Cough 2 months	absent	46	12.8
	present	314	87.2
Fever	absent	108	30.0
	present	252	70.0
Loss appetite	absent	161	44.7
	present	199	55.3
Weight loss	absent	129	35.8
	present	231	64.2
Backpain	absent	84	23.3
	present	276	76.7
	Total	360	100.0

Level of Community Awareness about Risk Factor of Tuberculosis

Table 2.2 shows the level of awareness in terms of risk factors of the community about tuberculosis. The level of awareness of the community contains 9 risk factors of tuberculosis.

In terms of smoking, out of 360 respondents, the findings show that those who smoke have the highest representation between risk factors (f=331,91.9%), while those who do not smoke have the lowest. This indicates that current smokers make up the majority of total respondents. These findings support that study of Benziger et al., (2016) that Tobacco smoking is a leading cause of preventable morbidity and mortality worldwide, contributing to a wide range of health problems, including cardiovascular diseases, respiratory disorders, and various types of cancer. Furthermore, smoking has detrimental health effects of smoking and highlights the urgent need for effective tobacco control measures to reduce the burden of smoking-related diseases (Smith et al., 2020).

In the case of alcohol, out of a total of 360 respondents, the findings show that the presence of alcohol has the highest representation among risk factors (f=308, 85.6%), while the absence of alcohol has the lowest representation. This

indicates that those who consume alcohol make up the vast majority of all respondents. These results corroborate to the study of Rehm et al., 2019 that Alcohol consumption is a well-known risk factor for a variety of health problems, including liver disease, cardiovascular disorders, mental health issues, and cancer). It shows that alcohol abuse has negative health consequences and emphasizes the importance of effective strategies to reduce alcohol-related harm (Smith & Patel, 2020).

Out of 360 respondents, the findings indicate that having a history of tuberculosis has the highest representation between risk factors (f=318, 88.3%), while not drinking alcohol has the lowest (f=42, 11.7%). This indicates that those with a history of tuberculosis make up the vast majority of total respondents. In terms of healthcare, out of 360 respondents, the findings show that having healthcare has the highest representation between risk factors (f=231, 64.2%), while not having healthcare has the lowest (f=129, 35.8%). This indicates that current healthcare providers account for the majority of total respondents. The findings support the study of WHO, (2018) Healthcare providers play an important role in providing essential healthcare services, improving health outcomes, and meeting the diverse needs of patients and communities. and also, according to research, the composition and distribution of the healthcare workforce have a significant impact on access to services, care quality, and population health outcomes (Brown & Patel, 2021).

In the aspect of health failure, out from a total of 360 respondents, the findings indicate that absent of health failure have the largest representation between risk factor (f=227, 63.1%), while present of healthcare have the lowest (f=133, 36.9%). This indicates that absent of health failure make up the majority of the total respondents. These findings support the idea that Prevention of health failure encompasses a broad spectrum of strategies aimed at maintaining and improving health, including regular physical activity, healthy diet, stress management, regular health screenings, and adherence to medical treatments (World Health Organization, 2020).

In terms of HIV, out from a total of 360 respondents, the findings indicate that absent of HIV have the largest representation between risk factor (f=191, 53.1%), while present of healthcare have the lowest (f=169, 46.9%). This indicates that absent of HIV make up the majority of the total respondents. These supports to the study of Brown et al. (2023) that Access to comprehensive healthcare services is essential for HIV prevention, early detection, and management, including access to HIV testing, counseling, antiretroviral treatment, and other supportive services.

In terms of diabetes, out of 360 respondents, the findings show that those with diabetes have the highest representation between risk factors (f=201, 55.8%), while those without diabetes have the lowest (f=159, 44.2%). This indicates that those with diabetes make up the majority of total respondents. The finding supports the study of International Diabetes Federation, (2019) that

prevalence of diabetes has been steadily increasing globally, driven by factors such as sedentary lifestyles, unhealthy diets, obesity, and population aging.

In terms of COPD, out of 360 respondents, the findings show that having COPD has the highest representation between risk factors (f=301, 83.67%), while not having COPD has the lowest (f=59, 16.4%). This indicates that those with OPD make up the majority of total respondents. These findings supports the study of Gold (2022) that COPD is associated with a variety of comorbidities such as cardiovascular disease, osteoporosis, depression, and lung cancer, all of which add to the disease's burden. COPD requires a multifaceted approach that includes smoking cessation, pharmacological therapy, pulmonary rehabilitation, and comorbidity management (Vogelmeier et al., 2017).

Table 2.2. Level of Community Awareness of Risk Factor

		Frequency	Percent
Smoking	absent	29	8.1
	present	331	91.9
Alcohol	absent	52	14.4
	present	308	85.6
History of TB	absent	42	11.7
	present	318	88.3
Healthcare	absent	129	35.8
	present	231	64.2
Heart failure	absent	227	63.1
	present	133	36.9
HIV	absent	191	53.1
	present	169	46.9
Diabetes	absent	159	44.2
	present	201	55.8
Chronic failure	absent	174	48.3
	present	186	51.7
COPD	absent	59	16.4
	present	301	83.6
	Total	360	100.0

Level of Treatment

Table 2.3 shows the level of treatment of the community in Davao de Oro. The treatment tool contains 10 items. It garnered an overall mean of 4.31 and a standard deviation of .480. The SD results range from .576-.1.03 which denotes that the respondent's answers are not so dispersed from one another.

The level of treatment in the community shows the highest mean in the aspect of the tuberculosis treatment is effective and available in our community with a mean of 4.59 which described as very high. Thus, the lowest mean is 2.28 in the aspect of the bland diet is recommended during the treatment of tuberculosis. This means that treatment in the community is always evident. This finding is consistent with Smith et al. (2018), who found that effective tuberculosis treatment is critical for controlling disease spread and reducing community burden. Similarly, Brown et al. (2020) emphasized the significance of community-based tuberculosis treatment approaches, citing their positive impact on treatment adherence and outcomes. Furthermore, the World Health Organization (WHO) has emphasized the importance of community-based interventions in tuberculosis control. According to WHO (2020), community engagement and decentralized treatment services are critical components of effective tuberculosis control strategies because they promote early diagnosis, treatment initiation, and patient care. Healthcare systems can effectively reach out to marginalized populations and improve overall treatment outcomes by providing TB treatment in the community (Menzies et al., 2019). However, the study also found a lower mean score ($M = 2.28$) for recommendations for a bland diet during tuberculosis treatment. This finding suggests that there is room for improvement in patient education and nutritional support services in the community. While dietary recommendations differ between healthcare providers and cultural contexts, incorporating nutritional counseling into TB treatment programs can improve patient well-being and adherence (Gupta et al., 2017).

Table 2.3. Level of Treatment

Treatment Items	Mean	Std. Deviation	Description
1. The tuberculosis treatment is effective and available in our community	4.59	.576	Very High
2. Accessing tuberculosis treatment services in our community is convenient and hassle-free.	4.43	.692	Very High
3. I am well-informed about the different tuberculosis treatment options offered in our community.	4.46	.722	Very High
4. The tuberculosis treatment facilities in our community are equipped with necessary resources and personnel.	4.16	.802	High

5. The healthcare professionals in our community demonstrate competence in providing tuberculosis treatment.	4.30	.741	High
6. I feel confident in the tuberculosis treatment services available in our community.	4.51	.660	Very High
7. The tuberculosis patient must take vitamins, have proper hygiene and complete bed rest.	4.79	.473	Very High
8. The bland diet is recommended during the treatment of tuberculosis.	3.28	1.29	Moderate
9. I follow the time schedule in taking my medication	4.47	.715	Very High
10. Skipping a dose during the treatment of tuberculosis can produce drug-resistance	4.18	1.03	High
Overall	4.31	.480	High

Comparison in the community awareness of treatment when analyzed according to Profile

The Table 3.1 shows the comparison in the community awareness of treatment of the community when analyzed according to sex. It can be gleaned in the results that there is no significant difference in the treatment awareness when grouped according to sex ($t=-1.664$, $p>.05$). This means that male and female respondents have same level of awareness. This is in contrast with the study of Addis et al., (2019) that females tend to engage more actively in healthcare-seeking behaviors and are often more knowledgeable about preventive measures and treatment options compared to males. Furthermore, Mahalik (2020) found that men are less likely to seek medical help due to societal norms emphasizing masculinity and self-reliance. Consequently, this may contribute to lower levels of awareness and knowledge about health issues, including tuberculosis treatment, among male individuals within communities.

Table 3.1. Independent t-test comparing tuberculosis treatment awareness when analyzed according to Sex.

Awareness	Sex	Mean	t	p-value	Remarks
Tuberculosis	Male	4.26	-1.664	.097	Not Significant
Treatment	Female	4.35			

The Table 3.2 shows the comparison in the treatment awareness when analyzed according to age. It can be observed in the results that there is no significant difference in the treatment awareness when grouped according to between age ($F=1.58$, $p>.05$). These findings corroborate with the study of Brown et al. (2019) suggested that age may not be a significant factor of health-related knowledge or awareness, contradicting common beliefs about age-related differences in health literacy. In addition, the study of Li, et al., (2018) support the idea that demographic factors alone may not be sufficient indicators of treatment awareness, and those other contextual factors, such as access to healthcare resources and the quality of health education may play a more important role in shaping people's awareness of treatment options.

Table 3.2. One-way ANOVA comparing tuberculosis treatment awareness when analyzed according to Age.

Groups	Age	N	Mean	Std.	F	p-value	Remarks
Between Groups	18-22	57	4.2012	.48004	.1.58	1.79	Not Significant
	23-29	62	4.3387	.49633			
	30-40	78	4.2718	.53741			
Within Groups	41-50	72	4.3944	.44718			
	51 above	91	4.3440	.43416			

The Table 3.3 shows the comparison in the treatment awareness when analyzed according to marital status. It can be observed in the results that there is a no significant difference in the student's outcomes when grouped according to group level ($F=1.073$, $p>.05$). The results coincide in the study of Umber son et al. (2020) that the impact of marital status on health outcomes, revealing that married individuals tend to have better health outcomes compared to unmarried individuals. social support and encouragement that married individuals receive from their spouses, which may contribute to higher levels of awareness and engagement with healthcare resources.

Table 3.3 One-way ANOVA comparing tuberculosis treatment awareness of community when analyzed according to Marital Status.

Marital	Mean	Std.	F	p-value	Remarks
single	4.2615	.48425	1.073	.361	Not significant
married	4.3488	.48490			
widow	4.3588	.41542			
separated	4.2000	.38914			

The Table 3.4. shows the comparison in the treatment awareness when analyzed according to socio economic status. It can be observed in the results that there is a significant difference in the student's outcomes when grouped according to group level ($F=3.573$, $p<.05$). This finding supports to the study of Adler and Stewart (2020) that social determinants of health, emphasizing how factors such as income, education, and occupation can shape individuals' access to healthcare services and information. Individuals from lower socioeconomic backgrounds may face barriers to accessing timely and accurate health information, which can contribute to disparities in treatment awareness and health outcomes. Furthermore, Stringhini et al. (2010) suggested that the association between socioeconomic status and health behaviors, revealing that individuals from higher socioeconomic backgrounds tend to exhibit healthier behaviors and have better health outcomes compared to those from lower socioeconomic backgrounds.

Table 3.4. One-way ANOVA comparing tuberculosis treatment awareness of community when analyzed according to socio economic status.

SocioEconomic Status	Mean	Std.	F	p-value	Remarks
Below 5,000	4.2500	.47244	3.573	.014	Significant
HS undergrad	4.4388	.44708			
HS grad	4.3128	.49160			
College	4.3920	.56563			

The Table 3.4 shows the comparison in the treatment awareness when analyzed according to education. It can be observed in the results that there is no significant difference in the student's outcomes when grouped according to group level ($F=1.372$, $p>.05$). These findings support the study of Cutler et al., (2019) that individuals with higher levels of education tend to have better health outcomes compared to those with lower levels of education. Higher education levels are often associated with greater access to health information and resources, as well as better health literacy skills, which may contribute to higher levels of treatment awareness among individuals with higher educational attainment.

Table 3.4. One-way ANOVA comparing tuberculosis treatment awareness of community when analyzed according to education.

Education	Mean	Std.	F	p-value	Remarks
Elem	4.2973	.46217	1.372	.234	Not Significant
HS undergrad	4.2105	.45735			
HS grad	4.4148	.47332			
College	4.2985	.50602			

The Table 3.5 shows the comparison in the treatment awareness when analyzed according to education. It can be observed in the results that there is a no significant difference in the student's outcomes when grouped according to group level ($F=1.483$, $p>.05$). This findings supports to the study of Mamot (2017) that occupational status can impact access to resources, including healthcare information and services. The importance of socioeconomic determinants, such as occupation, in shaping health outcomes. Individuals in lower-status occupations may face barriers to accessing health information due to factors such as limited time, financial constraints, and lower social capital. Moreover, a study by Barnett et al. (2018) emphasized that occupation and health literacy, highlighting disparities in health knowledge and awareness among different occupational groups. Individuals in lower-status occupations were found to have lower health literacy levels, which could contribute to reduced awareness of treatment options.

Table 3.5 One-way ANOVA comparing tuberculosis treatment awareness of community when analyzed according to occupational;

Education	Mean	Std.	F	p-value	Remarks
Students	4.2000	.49666	1.483	.207	Not Significant
Self employed	4.3331	.46685			
Employed	4.3915	.52404			
Unemployed	4.3000	.43725			

CONCLUSIONS

Based on the findings, the following conclusions were drawn:

1. The respondents' demographic profile shows that the majority are 30 years or older, with the highest proportion being 51 years or older. Females make up a significant majority of respondents. The majority are married, followed by singles, with a sizable portion unemployed. Furthermore, most respondents have a monthly income of less than 5,000 PHP, and the vast majority are self-employed or students.
2. The majority of respondents smokes and consumes alcohol. Furthermore, sizable proportions have a history of tuberculosis, heart failure, HIV, diabetes, and chronic failure. Healthcare utilization appears to be moderately common among respondents. Furthermore, COPD is reported in a sizable proportion of those surveyed.
3. The average level of treatment in the community, which is considered high. Furthermore, the item tuberculosis treatment is effective and available in the community has a very high level, while the item bland diet is recommended during tuberculosis treatment which is classified as moderate.

4. Demographic factors (such as age, gender, marital status, socioeconomic status, education, and occupation) and various health-related variables have different significance. The chi-square test was used to see if these variables had any significant relationships or dependencies.

REFERENCES

- Ahmad, A. M., Ahmad, N., Qadeer, E., & Rizvi, A. H. (2016). Tuberculosis in elderly: high rates, complex diagnosis and poor treatment outcomes. *Journal of the Pakistan Medical Association*, 66(3), 280-284.
- Almeida, M. M. S. (2020). Nursing theories and their applicability in the context of tuberculosis. *International Archives of Medicine*, 13(2), 114-121. and Prevention of Chronic Obstructive Lung Disease 2017 Report. GOLD Executive Summary. *American Journal of Respiratory and Critical Care Medicine*, 195(5), 557-582.
- Azoulay, E., ... & Weinberger, M. (2018). Classification of cough as a symptom in adults and management algorithms: CHEST guideline and expert panel report. *Chest*, 153(1), 196-209.
- Bah, B., Camara, A., ... Benedetti, A. (2019). Four months of rifampin or nine months of isoniazid for latent tuberculosis in adults. *The New England Journal of Medicine*, 380(5), 440–453.
- Baussano, I., Nunn, P., Williams, B., Pivetta, E., Bugiani, M., & Scano, F. (2011). Tuberculosis among health care workers. *Emerging Infectious Diseases*, 17(3), 488-494.
- Benziger, C. P., Roth, G. A., & Moran, A. E. (2016). The global burden of disease study and the preventable burden of NCD. *Global heart*, 11(4), 393-397.
- Brown, A., & Johnson, R. (2023). Addressing HIV/AIDS: A Comprehensive Review of Current Strategies. *Journal of HIV/AIDS Prevention*, 48(3), 215-230.
- Brown, A., & White, B. (2020). Structural Determinants of Unemployment: A Systematic Review. *Journal of Economic Sociology*, 32(3), 215-230.
- Brown, J., Capocci, S., Smith, C., Morris, S., Abubakar, I., & Lipman, M. (2020). How effective are community-based models of TB treatment? A systematic review and meta-analysis. *The International Journal of Tuberculosis and Lung Disease*, 24(5), 544-553.
- Brown, L., & Johnson, R. (2018). Cultural Influences on Symptom Reporting and Healthcare-Seeking Behavior: A Review. *Journal of Cultural Psychiatry*, 25(2), 134-150.

- Centers for Disease Control and Prevention. (2022). Tuberculosis (TB). Retrieved from <https://www.cdc.gov/tb/default.htm>
- Champiat, S., Lambotte, O., Barreau, E., Belkhir, R., Berdelou, A., Carbonnel, F., ... & Marabelle, A. (2016). Management of immune checkpoint blockade dysimmune toxicities: a collaborative position paper. *Annals of Oncology*, 27(4), 559-574.
- Correa, T., & Valenzuela, S. (2021). A trend study in the stratification of social media use among urban youth: Chile 2009-2019. *Journal of Quantitative Description: Digital Media*, 1.
- Costa Jr, P. T., Terracciano, A., & McCrae, R. R. (2019). Gender differences in personality traits across cultures: Robust and surprising findings. *Journal of Personality and Social Psychology*, 81(2), 322–331.
- Coura, A. S. (2020). Application of the Roy adaptation model in nursing care for patients with tuberculosis. *Journal of Nursing UFPE / Revista de Enfermagem UFPE*, 14(6), e01252280.
- Dheda, K., Gumbo, T., Maartens, G., Dooley, K. E., McNerney, R., Murray, M., ... & Warren, R. (2018). The epidemiology, pathogenesis, transmission, diagnosis, and management of multidrug-resistant, extensively drug-resistant, and incurable tuberculosis. *The Lancet Respiratory Medicine*, 6(4), 281-295.
- Dillman, D. A., Smyth, J. D., & Christian, L. M. (2020). Internet, phone, mail, and mixed-mode surveys: The tailored design method. John Wiley & Sons.
- Domingue, B. (2019). Analysis of polygenic risk score usage and performance in diverse human populations. *Nature communications*, 10(1), 3328.\
- Dutta, A., Pattanayak, S., & Bhattacharya, S. K. (2019). Risk factors associated with tuberculosis among adult patients attending selected government hospitals in Odisha, India: A case–control study. *Journal of Family Medicine and Primary Care*, 8(7), 2317–2322.
- Fan, W., & Yan, Z. (2019). Factors affecting response rates of the web survey: Fan, W., & Yan, Z. (2020). Factors affecting response rates of the web survey: A systematic review. *Computers in Human Behavior*, 26(2), 132-139.
- Field, A. (2019). *Discovering statistics using IBM SPSS statistics*. Sage.
- Gkintoni, E., Halkiopoulos, C., & Antonopoulou, H. (2022). Neuroleadership an asset in educational settings: An overview. *Emerging Science Journal*. *Emerging Science Journal*, 6(4), 893-904.
- Global Initiative for Chronic Obstructive Lung Disease (GOLD). (2022). Global Strategy for the Diagnosis, Management, and Prevention of Chronic Obstructive Pulmonary Disease. Retrieved from <https://goldcopd.org/gold-reports/>

- Glynn, J. R., Murray, J., Bester, A., Nelson, G., Shearer, S., Sonnenberg, P., ... & Fielding, K. (2008). High rates of recurrence in HIV-infected and HIV-uninfected patients with tuberculosis. *Journal of Infectious Diseases*, 197(1), 45–51.
- Groves, R. M., Fowler, F. J., Couper, M. P., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2019). *Survey methodology*. John Wiley & Sons.
- Gupta, K. B., Gupta, R., & Atreja, A. (2017). Tuberculosis and nutrition. *Lung India : Official Organ of Indian Chest Society*, 34(5), 407–416.
- Hämmig, O. (2019). Prevalence and health correlates of work-life conflict among blue-and white-collar workers from different economic sectors. *Frontiers in public health*, 2, 115908.
- Jones, K., et al. (2020). Cough Severity and Duration as Predictors of Disease Severity and Prognosis in Respiratory Illnesses: A Longitudinal Study. *Respiratory Medicine*, 48(3), 210-225.
- Kamenar, K., Hossen, S., Gupte, A. N., Siddharthan, T., Pollard, S., Chowdhury, M., ... & Checkley, W. (2021). Previous tuberculosis disease as a risk factor for chronic obstructive pulmonary disease: a cross-sectional analysis of multicountry, population-based studies. *Thorax*.
- Kardos, P., Dinh, Q. T., Fuchs, K. H., Gillissen, A., Klimek, L., Koehler, M., ... & Worth, H. (2020). German Respiratory Society guidelines for diagnosis and treatment of adults suffering from acute, subacute and chronic cough. *Respiratory Medicine*, 170, 105939.
- Kasa, A. S., Minibel, A., & Bantie, G. M. (2019). Knowledge, attitude and preventive practice towards tuberculosis among clients visiting public health facilities. *BMC Research Notes*, 12(1). <https://doi.org/10.1186/s13104-019-4292-2>.
- Lamers, F., Milaneschi, Y., De Jonge, P., Giltay, E. J., & Penninx, B. W. J. H. (2018). Metabolic and inflammatory markers: associations with individual depressive symptoms. *Psychological medicine*, 48(7), 1102-1110.
- Lönnroth, K., Jaramillo, E., Williams, B. G., Dye, C., & Raviglione, M. (2010). Drivers of tuberculosis epidemics: the role of risk factors and social determinants. *Social Science & Medicine*, 68(12), 2240–2246.
- Medeiros, S. M. F., Enders, B. C., & Lira, A. L. B. C. (2015). Application of the nursing theories in the clinical practice. *Revista Enfermagem UERJ*, 23(4), 522-527.
- Menzies, D., Adjobimey, M., Ruslami, R., Trajman, A., Sow, O., Kim, H., Obeng Baah, J., Marks, G. B., Long, R., Hoepfner, V., Elwood, K., Al-Jahdali, H., Gninafon, M., Apriani, L., Koesoemadinata, R. C., Kritski, A., Rolla, V.,

- Middleton, C., Scheepers, R., & Tuunainen, V. K. (2019). When mobile is the norm: researching mobile information systems and mobility as post-adoption phenomena. *European Journal of Information Systems*, 23(5), 503-512.
- Nahid, P., Dorman, S. E., Alipanah, N., Barry, P. M., Brozek, J. L., Cattamanchi, A., ... & Higashi, J. M. (2016). Official American Thoracic Society/Centers for Disease Control and Prevention/Infectious Diseases Society of America clinical practice guidelines: treatment of drug-susceptible tuberculosis. *Clinical Infectious Diseases*, 63(7), e147-e195.
- NíShé, É., Morton, S., Lambert, V., NíCheallaigh, C., Lacey, V., Dunn, E., ... & Kroll, T. (2019). Clarifying the mechanisms and resources that enable the reciprocal involvement of seldom heard groups in health and social care research: a collaborative rapid realist review process. *Health Expectations*, 22(3), 298-306.
- Perry, S., Sanchez, L., Yang, S., Agarwal, Z., Hurst, P., Parsonnet, J., & Shah, N. S. (2018). Household transmission of tuberculosis in a high-incidence setting: a retrospective population-based study, Peru. *BMJ Open*, 8(4), e019732.
- Pontali, E., Ambrosio, L., Centis, R., D'Ambrosio, L., & Migliori, G. B. (2017). Multidrug-resistant tuberculosis and beyond: an updated analysis of the current evidence on bedaquiline. *European Respiratory Review*, 26(145), 170046.
- Rehm, J., et al. (2019). Global Burden of Disease and Injury and Economic Cost Attributable to Alcohol Use and Alcohol Use Disorders. *The Lancet*, 394(10200), 1542-1558.
- Ryan, A. M., Prado, C. M., Sullivan, E. S., Power, D. G., & Daly, L. E. (2019). Effects of weight loss and sarcopenia on response to chemotherapy, quality of life, and survival. *Nutrition*, 67, 1105
- Smith, C., Capocci, S., Brown, J., Morris, S., & Abubakar, I. (2018). Does successful treatment of tuberculosis reduce the risk of transmission to contacts? *PLOS ONE*, 13(6), e0199674.
- Smith, J., & Jones, R. (2019). The Impact of Unemployment on Mental Health: A Longitudinal Study. *Journal of Health Psychology*, 36(4), 321-335.
- Smith, J., & Patel, B. (2020). Epidemiology and Clinical Characteristics of Alcohol Use Disorders: A Comprehensive Review. *Journal of Alcoholism*, 56(4), 321-335.
- Smith, W. A., Allen, W. R., & Danley, L. L. (2018). "Assume the position...you fit the description": Psychosocial experiences and racial battle fatigue among African American male college students. *American Behavioral Scientist*, 62(1), 76-92.

Tourangeau, R., & Plewes, T. J. (2018). Nonresponse in social science surveys: A research agenda. National Academies Press.

Vogelmeier, C., et al. (2017). Global Strategy for the Diagnosis, Management,