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Health Perception and Management of Household Members of Patients with Pulmonary Tuberculosis

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ABSTRACT

Reducing and controlling incident rate of Pulmonary Tuberculosis was the goal of the Department of Health thus coming up with a program called Direct Observed Treatment Short-course (DOTS). This study would like to know the health perception and management of household members on patient with pulmonary tuberculosis. The participant involved in this study are the household members of patient diagnosed with pulmonary tuberculosis from the month of January to March with highest rate with in the poblacion barangays of Echague Isabela. The researcher used a survey questionnaire and was given to 30 household members of patients with Pulmonary Tuberculosis wherein they have evaluated their health Perception and Management on Pulmonary Tuberculosis. The Health Perception and management of household members were acquired using the likert scale that was created by the researcher wherein the highest is 5 which is equivalent to ALWAYS and 1 or NEVER was the lowest. The researcher used a equivalent to ALWAYS and 1 or NEVER was the lowest. The researcher used a descriptive survey design to collect information from the respondents. The researcher used SPSS for the tabulation and determining the frequency and percentage, t-value and f-value is used to determine the difference of respondents profile and Pearson's r- correlation is used to determine the relationship between the health perception and health management. Results revealed that the Health Perception of the Respondent shown that they are in average knowledge about TB. The health management of the respondents shown that they are knowledgeable but not enough.

Keywords: health perception; health management; pulmonary tuberculosis

INTRODUCTION

National TB Statistics, Tuberculosis (TB) reported in 2016 that the 9th leading cause of death worldwide was the 10.4 million new cases of TB disease.⁽¹⁾ The transmission of Tuberculosis is due to inhalation of infectious droplet. Household members of patient with Pulmonary Tuberculosis are particularly high risk for tuberculosis because of their close contact with the patient.^{(2),(3)} The belief and attitudes of the patient and family members can affect the compliance and Health seeking behavior of TB patient. Nowadays through the news, social media information can help the household members, the Tb patient and every individual to become knowledgeable on TB mainly on the transmission of the disease. Once every individual become knowledgeable the occurrence and the transmission of the disease will decrease.

The national Tuberculosis TB Control Program of Department of Health (DOH), significant progress has been achieved since the Philippines adopted the Directly Observed Treatment Short-course (DOTS) strategy in 1996 and at the end of 2002-2003, all public health centers are enabled to deliver DOTS services. Because of the Government's efforts to continuously improve health care delivery, there have been progressive increases in the detection and treatment success, thus it is required that every individual should be aware of different diseases so that one can prevent the transmission of communicable diseases.⁽⁴⁾

Tuberculosis remains a major public health issue in many developing nations and is the leading cause of death worldwide in people living with HIV/AIDS. The current global estimate is that over 8.8 million tuberculosis cases emerge each year, and nearly 1.5 million people die from TB yearly: 98% of these cases and deaths occur in developing countries^(1,10). Tuberculosis is considered as a social disease, with many socio-cultural factors contributing to the disease burden⁽²⁾.

Pulmonary tuberculosis is an infectious disease caused by Mycobacterium tuberculosis and most often manifests in the lungs. Mycobacterial is transmitted through droplets in the air so that a patient with pulmonary tuberculosis is the cause of pulmonary tuberculosis transmission in the population in the vicinity. Clinical symptoms may include coughing continuously and phlegm for 3 weeks or more, sputum mixed with blood (hemoptysis), shortness of breath and pain in the chest, weak body, loss of appetite and weight loss, discomfort (malaise), night sweats without activities and fever chills more than one month^{(3), (18)}.

Transmission of pulmonary tuberculosis and the development of the majority driven by social factors such as adverse environmental conditions including occupant density and ventilation state homes that do not meet health requirements Transmission of pulmonary tuberculosis and the development of the majority driven by social factors such as adverse environmental conditions including occupant density and ventilation state homes that do not meet health requirements ⁽⁴⁾.

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According to WHO⁽⁵⁾⁽⁶⁾, tuberculosis remains a major public health issue in many developing nations and is the leading cause of death worldwide in people living with HIV/AIDS. The current global estimate is that over 8.8 million tuberculosis cases emerge each year, and nearly 1.5 million people die from TB yearly: 98% of these cases and deaths occur in developing countries. Tuberculosis is considered as a social disease, with many socio-cultural factors contributing to the disease burden.

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According to Dye et al⁽⁸⁾, transmission of pulmonary tuberculosis and the development of the majority driven by social factors such as adverse environmental conditions including occupant density and ventilation state homes that do not meet health requirements Transmission of pulmonary tuberculosis and the development of the majority driven by social factors such as adverse environmental conditions including occupant density and ventilation state homes that do not meet health requirements.

Early diagnosis and appropriate treatment for the vast majority of people who developed pulmonary tuberculosis is the epidemiological basis of global tuberculosis control efforts^{(5), (9)}. According to the International Standards for tuberculosis care, all person with otherwise unexplained productive cough lasting 2-3 weeks or more should be evaluated for tuberculosis.

Tuberculosis (TB) is one of the main causes of death in developing countries. Awareness and perception of risk of TB could influence early detection, diagnosis and care seeking at treatment centers. The study found that there were association between multiple sources of information, and higher perceptions of risk of TB among adults aged 18-49 years.⁽¹⁰⁾

Ye et al.⁽¹¹⁾ shared that higher percentage of households experiencing catastrophic health expenditure and medical impoverishment correlates to increase health care need. While the higher socio-economic status households had similar levels of catastrophic health expenditure as compared with the lowest. Johari et al⁽¹²⁾, found out that there is a direct relationship that was found between adopting a healthy behavior and scores of knowledge, perceived susceptibility, and perceived benefit. Although the results of this study can be the basis of educational interventions, any generalizations should be performed cautiously.

Baylor College of Medicine, Houston, TX 77030, also informed that the primary prevention for TB include case management and contact investigation, environmental control and vaccination. Secondary

prevention is achieved by chemotherapy. The home hygiene practices was identified to have the potential link between laundry and risk of disease transmission in homes.

Lee, Oh. ⁽¹³⁾ said that health perception, resistance and sensitivity indicate health belief, perceived disability, and they also showed significant effects on life satisfaction.

TB treatment delivery through community health workers (CHW) does not only improve access and service utilization but also contributed to capacity building and improving the routine TB recording and reporting systems. Community-based intervention coupled with the DOTS strategy seem to be an effective approach, however there is a need to evaluate various community-based integrated delivery models for relative effectiveness.

The Philippines is one of the highest tuberculosis (TB) burden countries in the world with nationwide coverage of directly observed treatment, short-course (DOTS) achieved in 2003. This study reports on the National TB Control Programme (NTP) surveillance data for the period 2003 to 2011. During this period, the number of TB symptomatic examined increased by 82% with 94% completing the required three diagnostic sputum microscopy examinations. Of the 1 379 390 cases diagnosed and given TB treatment, 98.9% were pulmonary TB cases. Of these, 54.9% were new smear-positive cases, 39.3% new smear-negative cases and 4.7% were cases previously treated. From 2008 to 2011, 50 030 TB cases were reported by non-NTP providers. Annual treatment success rates were over 85% with an average of 90%; the annual cure rates had an eight-year average of 82.1%. These surveillance data represent NTP priorities-the large proportion of smear-positive cases reflected the country's priority to treat highly infectious cases to cut the chain of transmission. The performance trend suggests that the Philippines is likely to achieve Millennium Development Goals and Stop TB targets before 2015.⁽¹⁴⁾

METHODS

To achieve the objective of this study, the researcher uses the descriptive survey design to collect information from the respondents regarding their perceptions about health and health management to their patients who were diagnosed with pulmonary tuberculosis.

This study was conducted at Poblacion Barangays in Echague, Isabela with highest rate TB cases. The Barangays included are S Pabian, Gucab, and Tuguegarao.

The respondents of the study are the 30 house hold members of patients who were diagnosed with pulmonary tuberculosis. The 30 household members were the individuals staying in the same house of patient diagnosed with Pulmonary tuberculosis from January to March and they are 18 years old and above.

To achieve the objective of the study, the researcher formulated a questionnaire. The questionnaire had 3 parts; the first part was the general and demographic question. The second part was the health perception; the third pat was the health management. The purpose of this questionnaire was to gather information from the respondents.

Scale	Range	Quality Description
5	4.50 - 5.00	Always
4	3.50 - 4.49	Often
3	2.50 - 3.49	Sometimes
2	1.50 - 2.49	Rarely
1	1.00 - 1.49	Never

Mean and qualitative description

The following were done in conducting research study:

- 1. The researchers first identify the barangay within the poblacion barangays of Echague with highest rate of patients diagnosed with pulmonary tuberculosis for the month of January to March, 2018.
- 2. After identifying the barangay who had highest rate of Tuberculosis cases, the researchers asked for the list of patients in that particular barangay.
- 3. After identifying the patients, the researchers asked the patient to conduct their research to their family members who stayed with them.
- 4. After the patients agreed to conduct the research to their family members who stayed with them, the researcher went to their houses to ask their family members become my respondent and let them sign the consent for legality purposes.
- 5. The collected data were tabulated using Statistical Package for Social Science (SPSS). Frequency counts and percentage were used to describe the respondents' profile.
- 6. T-test was used to determine the difference of the gender respondents and the health perception and management, while F-test is used to determine the difference of age, occupation, and educational attainment in the health perception and management of respondents.
- 7. Pearson's- I correlation was used to determine the relationship between Health Perception and Health Management.

RESULTS

Profile of the Respondents

The profile of the respondents in terms of gender, age occupation and educational attainment are presented.

Table 1.	Frequency a	and percenta	age distribution	on of the res	spondents profile

Drofile of the respondents	Fragueney	Doroontogo
Profile of the respondents	Frequency	Percentage
Gender		
Male	10	33.3
Female	20	66.7
Age		
18 - 30	14	46.7
31 – 43	8	26.7
44 – 56	3	10.0
57 - 69	5	16.6
Occupation		
Housewife	11	36.7
Farmer	5	16.7
Sales lady	2	6.7
Houseboy	1	3.3
Public worker	1	3.3
No work	9	30.0
Driver	1	3.3
Educational attainment		
Elementary graduate	12	40.0
Highschool graduate	15	50.0
College graduate	3	10.0

The profile of the respondents involved age, gender, occupations and educational attainment. Table 1 shows the profile of the respondents. There were more female which accounts to 20 or 66.7%. There were 14 which accounts to 46.7% age ranging between 18-30; while 3 which account to 10.0% belong to age ranging from 44-56 years old. Most of them are housewives which accounts of 11 or 36.7% and most of them finished highschool or secondary education which accounts 15 or 50%, and only 3 or 10.0% were college graduate.

Health Perception of Household Member

Table 2. Mean and descriptive equivalent of health perception of household member of patient with Pulmonary Tuberculosis

	Health perception	Mean	Descriptive equivalent
1.	Do you believe that the work of the patient can affect the patient	2.4000	Rarely
	in developing TB?		
2.	Did you read about the condition of your patient?	2.4667	Rarely
3.	Did you think that you have the highest chance to develop TB?	2.0667	Rarely
4.	Did you ask health care provider about the transmission of TB?	2.1000	Rarely
5.	Do you think TB can cause other infectious diseases?	3.0333	Sometimes
6.	Do you think TB cannot be transmitted after 2 weeks of taking	2.7000	Sometimes
	medication?		
7.	Do you think Family members of the TB patient had a high risk	2.9000	Sometimes
	in developing TB?		
8.	How often do you think of your patient's condition?	2.5333	Sometimes
9.	Did you have enough sleep after knowing that one of your family	2.3667	Rarely
	member had TB?		
10.	Did you search on the internet the prevention on TB?	1.7333	Rarely

Table 2 shows the mean of Health Perception of household member of patient with Pulmonary Tuberculosis and descriptive equivalent. As shown in the table, six (6) out of ten (10) statement under the Health Perception was given a Descriptive equivalent of "Rarely" with mean ranging from 1.7333-2.4667, while the rest of the statement were given descriptive equivalent of "sometimes" which means ranging from 2.5333-3.0333, and it shows that the highest mean obtain was 3.0333. The result implies that the household members had inadequate perception regarding on Pulmonary Tuberculosis.

Health Management of Household Member

Table 3. Mean and descriptive equivalent of health management of household members of patient with Pulmonary Tuberculosis

	Health management	Mean	Descriptive equivalent
1.	Does your patient remain at home during medication?	2.733	Sometimes
2.	Do you wear mask?	3.733	Often
3.	Did the patient avoid going to public places during the first week	3.167	Sometimes
	of medication?		
4.	Do you cover your mouth when coughing/ sneezing?	3.967	Often
5.	Did you separate a proper ventilated room for the patient?	3.400	Sometimes
6.	Did you separate the utensils used by the patient?	3.333	Sometimes
7.	Did you separate patient's clothes when washing?	2.967	Sometimes
8.	Do you take vitamins improve immune system?	3.333	Sometimes
9.	Do you disposed properly plema, laway, sipon) of the patient?	2.867	Sometimes
10.	Do you go to your physician after knowing that one of your	2.733	Sometimes
	family members had TB?		

Table 3 shows the mean and descriptive equivalent of Health management of household members of patient with Pulmonary Tuberculosis. As shows in the Table, eight (8) out of ten (10) statements under the Health Management were rated as "sometimes" with mean ranging between 2.733-3.333. Topped in the test was "Does your patients remain at home during medication?", "Did the patient avoid going to public places during the first week of medication"," Did you separate a proper ventilated room for the patient", "Did you separate the utensils used by the patient?", "Did you separate patient's clothes when washing?", "Do you take vitamins improve immune system?", "Do you disposed properly the secretions(dura, plema,laway,sipon) of the patient?", and "Do you go to your physician after knowing that one of your family member had TB?". Two (2) of the statements were rated as "often", "Do you wear mask?", and "Do you cover your mouth when coughing/ sneezing?" with mean equal to 3.7333 and 3.167 respectively. This implies that the household members are knowledgeable on preventing the spread of TB but it is not enough.

Significant Difference between Respondents' Profile and Health Perception

Determine if there is significant difference of respondents' profile and health perception in terms of the following:

Table 4. Significant difference of respondents' gender and health perception

	Health perception		ean	t-value	Probability
		Male	Female	_	
1.	Do you believe that the work of the patient can affect the patient in developing TB?	1.8000	2.7000	-1.646 ^{ns}	0.111
2.	Did you read about the condition of your patient?	2.2000	2.6000	-0.786 ^{ns}	0.439
3.	Did you think that you have the highest chance to develop TB?	2.1000	2.0500	0.129 ^{ns}	0.898
4.	Did you ask health care provider about the transmission of TB?	2.1000	2.1000	0.000 ^{ns}	1.000
5.	Do you think TB can cause other infectious diseases?	2.9000	3.1000	-0.316 ^{ns}	0.754
6.	Do you think TB cannot be transmitted after 2 weeks of taking medication?	2.6000	2.750	-0.351 ns	0.728
7.	Do you think Family members of the TB patient had a high risk in developing TB?	2.7000	3.0000	-0.604 ^{ns}	0.551
8.	How often do you think of your patient's condition?	2.4000	2.6000	-0.406 ^{ns}	0.688
9.	Did you have enough sleep after knowing that one of your family member had TB?	2.6000	2.2500	0.571 ^{ns}	0.573
	Did you search on the internet the prevention on TB?	1.5000	1.8500	-0.746 ^{ns}	0.462

*significant ^{ns} no significant

Table 4 shows the difference between the respondents' gender and their health perceptions. As reflected in the table, all the statements under the health perception had no significant difference with respondents' gender.

	Health Perception	f-value	Significant
1. Do you	believe that the work of the patient can affect the patient	0.134 ^{ns}	0.875
•	oping TB?		
2. Did you	read about the condition of your patient?	0.613 ^{ns}	0.549
3. Did you	think that you have the highest chance to develop TB?	2.809 ^{ns}	0.078
4. Did you	ask health care provider about the transmission of TB?	0.393 ^{ns}	0.679
5. Do you	think TB can cause other infectious diseases?	1.167 ^{ns}	0.326
 Do you medicat 	think TB cannot be transmitted after 2 weeks of taking ion?	1.405 ^{ns}	0.263
•	think Family members of the TB patient had a high risk oping TB?	1.517 ^{ns}	0.238
8. How of	ten do you think of your patient's condition?	0.221 ns	0.803
•	have enough sleep after knowing that one of your family had TB?	0.943 ^{ns}	0.514
10. Did you	search on the internet the prevention on TB?	0.638 ^{ns}	0.402

*significant ^{ns} no significant

Table 5 shows the difference between the respondents' educational attainment and their health perception. As reflected in the table, all the statement under the health perception had no significant difference with respondents' educational attainment.

Table 6. Significant difference of respondents	' age and their health perception
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Health perception	f-value	Significant
Do you believe that the work of the patient can affect the patient in developing	0.905 ^{ns}	0.593
TB?		
Did you read about the condition of your patient?	2.229 ^{ns}	0.097
Did you think that you have the highest chance to develop TB?	2.165 ^{ns}	0.106
Did you ask health care provider about the transmission of TB?	20.64 ^{ns}	0.10
Do you think TB can cause other infectious diseases?	0.938 ^{ns}	0.568
Do you think TB cannot be transmitted after 2 weeks of taking medication?	1.585 ^{ns}	0.230
Do you think Family members of the TB patient had a high risk in developing	0.751 ^{ns}	0.717
TB?		
How often do you think of your patient's condition?	2.484 ^{ns}	0.071
Did you have enough sleep after knowing that one of your family member had	1.134 ^{ns}	0.435
TB?		
Did you search on the internet the prevention on TB?	3.671 *	0.020
	Do you believe that the work of the patient can affect the patient in developing TB? Did you read about the condition of your patient? Did you think that you have the highest chance to develop TB? Did you ask health care provider about the transmission of TB? Do you think TB can cause other infectious diseases? Do you think TB cannot be transmitted after 2 weeks of taking medication? Do you think Family members of the TB patient had a high risk in developing TB? How often do you think of your patient's condition? Did you have enough sleep after knowing that one of your family member had	Do you believe that the work of the patient can affect the patient in developing TB?0.905 nsDid you read about the condition of your patient?2.229 nsDid you think that you have the highest chance to develop TB?2.165 nsDid you ask health care provider about the transmission of TB?20.64 nsDo you think TB can cause other infectious diseases?0.938 nsDo you think FB cannot be transmitted after 2 weeks of taking medication?1.585 nsDo you think Family members of the TB patient had a high risk in developing TB?0.751 nsHow often do you think of your patient's condition?2.484 nsDid you have enough sleep after knowing that one of your family member had TB?1.134 ns

*significant ^{ns} no significant

Table 6 presents the difference between respondents' age and their health perception. As presented in the table, the statement under health perception has no significant difference with the respondents age except one (1) in the statement "Did you search on the internet the prevention of TB?" which have a significant difference.

Table 7. Significant difference of respondents' occupation and their health perception

	Health perception	f-value	Significant
1.	Do you believe that the work of the patient can affect the patient in	3.444*	0.014
	developing TB?		
2.	Did you read about the condition of your patient?	2.836^{*}	0.032
3.	Did you think that you have the highest chance to develop TB?	1.269 ^{ns}	0.310
4.	Did you ask health care provider about the transmission of TB?	1.550 ^{ns}	0.207
5.	Do you think TB can cause other infectious diseases?	1.822 ^{ns}	0.139
6.	Do you think TB cannot be transmitted after 2 weeks of taking medication?	1.09 ^{ns}	0.293
7.	Do you think Family members of the TB patient had a high risk in developing	0.643 ns	0.65
	TB?		
8.	How often do you think of your patient's condition?	0.996 ^{ns}	0.451
9.	Did you have enough sleep after knowing that one of your family member	2.456 ^{ns}	005
	had TB?		
10.	Did you search on the internet the prevention on TB?	0.680 ^{ns}	0.667
*si	gnificant ^{ns} no significant		

Table 7 shows the difference between the respondents' occupation and their Health perception. It can be gleaned in the table that the statement under the Health perception, "Do you believe that the work of the patient can affect the patient in developing TB?", and "Did you read about the condition of your patient?" were found to have a significant difference with the respondents occupation, and the rest that under on the Health Perception had no significant difference.

Significant Difference between Respondents' Profile and Health Management

Determine if there is significant difference of respondents' profile and health management in terms of the following:

Table 8. Significant difference of respondents' gender and their health management

Health management	Μ	Mean		Probability
-	Male	Female	_	-
1. Does your patient remain at home during medication?	2.1000	2.0500	-2.3008*	0.029
2. Do you wear mask?	3.5000	3.8500	-0.638 ^{ns}	0.500
3. Did the patient avoid going to public places during the first week of medication?	2.7000	3.4000	-1.291 ^{ns}	0.207
4. Do you cover your mouth when coughing/ sneezing?	3.6000	4.1500	-1.097 ^{ns}	0.282
5. Did you separate a proper ventilated room for the patient?	3.0000	3.6000	-1.100 ^{ns}	0.324
6. Did you separate the utensils used by the patient?	2.7000	3.6500	-1.789 ^{ns}	0.084
7. Did you separate patient's clothes when washing?	2.5000	3.2000	-1.129 ^{ns}	0.268
8. Do you take vitamins improve immune system?	2.8000	3.6000	-1.176 ^{ns}	0.250
9. Do you disposed properly plema, laway, sipon) of the patient?	2.0000	3.3000	-2.672*	0.012
10. Do you go to your physician after knowing that one of your family members had TB?	2.6000	2.8000	-0.380 ^{ns}	0.707

*significant ^{ns} no significant

Table 8 shows the difference between the respondents' gender and their health management. In the statement under the Health management, two (2) out of ten (10) was found to have a significant difference with the respondent gender, i.e., "Does your patients remain at home during medication?" and "Do you disposed properly the secretions (dura, plema, laway, sipon) of the patient?". However, the rest of the statement under Health management "Do you wear mask?", "Did the patient avoid going to public places during the first week of medication?", "Do you cover your mouth when coughing/ sneezing?", "Did you separate a proper ventilated room for the patient?", "Did you separate the utensils used by the patient?", "Did you separate patient's clothes when washing ?", "Do you take vitamins improve immune system?", and "Do you go to your physician after knowing that one of your family member had TB?" were found to have no significant difference with respondents' gender.

Table 9. Significant difference of respondents' educational attainment and their health management

Health perception	1	f-value	Significant
1. Does your patient remain at home duri	ng medication?	0.596 ^{ns}	0558
2. Do you wear mask?	-	2.813^{*}	0.078
3. Did the patient avoid going to public p of medication?	laces during the first week	2.184 ^{ns}	0.132
4. Do you cover your mouth when cough	ng/ sneezing?	0.315 ^{ns}	0.732
5. Did you separate a proper ventilated ro	om for the patient?	0.292 ^{ns}	0.749
6. Did you separate the utensils used by t	ne patient?	0.093 ^{ns}	0.912
7. Did you separate patient's clothes whe	n washing?	5.595^{*}	0.009
8. Do you take vitamins improve immune	system?	0.518 ^{ns}	0.602
9. Do you disposed properly plema, lawa	y, sipon) of the patient?	1.684 ^{ns}	0.205
10. Do you go to your physician after know		0.158 ^{ns}	0.885
family members had TB?			

*significant ^{ns} no significant

Table 9 shows the difference between the respondents' educational attainment and their health management. In the statement under the Health management two (2) out of ten (10) was found to have a significant difference with the respondent gender, i.e., "Do you wear mask?" and "Did you separate patient's

clothes when washing?". However, the rest of the statement under Health management " Does your patients remain at home during medication?", "Did the patient avoid going to public places during the first week of medication?", "Do you cover your mouth when coughing/ sneezing?", "Did you separate a proper ventilated room for the patient?", "Did you separate the utensils used by the patient?", "Do you disposed properly the secretions(dura, plema, laway, sipon) of the patient?", "Do you take vitamins improve immune system?", and "Do you go to your physician after knowing that one of your family member had TB?" were found to have no significant difference with respondents' Educational Attainment.

Table 10. Significant difference of respondents' age and their health management

	Health perception	f-value	Significant
1.	Does your patient remain at home during medication?	2.223 ns	0.098
2.	Do you wear mask?	1.348 ^{ns}	0.321
3.	Did the patient avoid going to public places during the first week of medication?	0.847 ^{ns}	0.639
4.	Do you cover your mouth when coughing/ sneezing?	0.852 ^{ns}	0.635
5.	Did you separate a proper ventilated room for the patient?	0.425 ns	0.948
6.	Did you separate the utensils used by the patient?	0.930 ^{ns}	0.574
7.	Did you separate patient's clothes when washing?	0.930 ^{ns}	0.574
8.	Do you take vitamins improve immune system?	0.745 ^{ns}	0.722
9.	Do you disposed properly plema, laway, sipon) of the patient?	1.123 ^{ns}	0.441
10.	Do you go to your physician after knowing that one of your family members had TB?	1.787 ^{ns}	0.174

*significant ns no significant

Table 10 presents the difference between respondents' age and their health management. As presented in the table, the statement under the health management has no significant difference with the age of the respondents.

Table 11. Significant difference of res	spondents' occupation and	their health management

Health perception	f-value	Significant
1. Does your patient remain at home during medication?	0.975 ^{ns}	0.464
2. Do you wear mask?	0.961 ns	0.473
3. Did the patient avoid going to public places during the first w of medication?	veek 1.147 ^{ns}	0.367
4. Do you cover your mouth when coughing/ sneezing?	0.667 ^{ns}	0.677
5. Did you separate a proper ventilated room for the patient?	1.270 ^{ns}	0.310
6. Did you separate the utensils used by the patient?	1.360 ^{ns}	0.272
7. Did you separate patient's clothes when washing?	1.734 ^{ns}	0.158
8. Do you take vitamins improve immune system?	1.734 ^{ns}	0.158
9. Do you disposed properly plema, laway, sipon) of the patient?	1.855 ^{ns}	0.133
10. Do you go to your physician after knowing that one of your	0.652 ^{ns}	0.689
family members had TB?		

*significant ^{ns} no significant

Table 11 shows the difference between the respondents' occupation and their Health Management. It is found in the statement under the health management that there is no significant difference with the respondents' occupation and their health management. Table 5 Determine the significant relationship of health perception and health management

Significant Relationship of Health Perception and Health Management

Table 12. Significant relationship of health perception and health management

	r-value	Probability
Health Perception and Health Management	0.372^{*}	0.043
*significant ^{ns} no significant		

Table 12 presents the relationship between respondents Health Perception and their Health management. As presented in the table, the statement under the health perception and health management shows that there is

significant relationship which comprises .372 and had a probability of .043. This means that the hypothesis and the result is the same.

CONCLUSION

Based on the result of the study, the following can be concluded: The health perception of the respondents revealed that they are in average knowledge about TB. The health management of the respondents shown that they are knowledgeable but not enough. The respondents' health perception shows that there is no significant difference between the gender, educational attainment, and occupation; while on determining the significant difference between the age and Health Perception of the respondent it shows that all of the items are no significant difference. The health management of the respondent shows that there is significant relationship between gender and the health Management in item 1 and 9 and the other items shows that there is no significant relationship between the gender and Health Management, while in determining the significant difference. In age and educational attainment, it shows that there is significant difference. In age and occupation it shows that there is no significant difference. In age and occupation it shows that there is no significant difference. In age and occupation it shows that there is no significant difference. In age and occupation it shows that there is no significant difference and educational attainment, it perception and health management, clearly shows a significant relationship between the two.

In view of the findings and conclusions, the researcher recommends the following: The researcher recommends to develop a health teaching program on Pulmonary Tuberculosis as basis for policy making. The researcher recommends future researchers to conduct community lectures and health teachings to increase awareness and knowledge on tuberculosis. The researcher recommends future researcher to empower by conducting house to house information dissemination to improve management on tuberculosis.

REFERENCES

- 1. World Health Organization. Global tuberculosis report 2017. Geneva: World Health Organization; 2017. Available from: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6044658/
- 2. Wang PD, Lin RS. TB transmission in the family. J Infect. 2000;41:249–251.
- 3. Kumar RA, Saran M, Verma BL, Srivastava RN. Pulmonary TB among contacts of patients with TB in an urban Indian population. J Epidemiol Community Health. 1984;38:253–258.
- 4. DOH- MIMAMORAPA Region. Tuberculosis. Center for Health Development MIMAROPA. (n.d). Available from: http://mimaropa.doh.gov.ph/tuberculosis/
- 5. World Health Organization. Global Tuberculosis Control: WHO Report. Geneva: World Health Organization; 2011.
- 6. World Health Organization. Global Tuberculosis Report. Geneva: World Health Organization; 2015. Available from: http://www.who.int/tb/publications/global_report/gtbr2015_executive_summary/pdf.
- 7. Sanchez T, Zimenes D. Human Tuberculosis due to Micobacterium Bovis and Caprae in Spain The International Journal of Tuberculosis and Lung Disease. 2009;13(12):132-136.
- 8. Dye C, Lonnroth K, Jaramillo E, Williams BG and Raviglione M. Trends in tuberculosis incidence and their determinants in 134 countries Bull World Health Organ. 2009;87:683–91.
- 9. Reid M J, Shah N S. Approaches to tuberculosis screening and diagnosis in people with HIV in resources-limited settings Lancet Infect Disesae. 2009;91:73-84.
- Banda RP, Mmanga M, Nkhata R, Singini I, Sikwese S, et al. Levels of TB Knowledge among Primary Healthcare Workers in Ntcheu District, Malawi. Epidemiology (Sunnyvale). 2014;4:175. doi: 10.41 72/2161-1165.1000175
- 11. Ye, Li et al. Catastrophic health expenditure and rural household impoverishment in china: what role does the new cooperative health insurance scheme play? Journal of Health and Education Promotion. 2014; 9(4):e93253. doi: 10.1371/journal.pone.0093253
- 12. Johari et. Al. Factors related to adopting healthy behaviors by patients with tuberculosis in Isfahan: Application of health belief model. Journal of Health and Education Promotion. 2014;3:86. doi: 10.4103/2277-9531.139600
- 13. Lee, B., Oh, D. The effect of health perceptionon living health belief, living satisfaction and wellbeingoriented activities according to swimming participation withmiddle-aged women. 2013. Available from http://www.ncbi.nih.gov.pubmed/130047
- 14. Belen, R, Garfin, A., Lagos, A., Vianzon R. The tuberculosis profile of the Philippines,2003-2011: advancing DOTS and beyond. Western Pacific Surveillance Response Journal. 2013;4(2):11-16. doi: 10.5365/wpsar.2012.3.4.022