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Research Article

HEALTHCARE WORKERS' PERSPECTIVES AND THEIR EFFECT ON TB PATIENT OUTCOMES: A STUDY FROM HHOHHO REGION

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Abstract

Health care workers' attitude is one of the factors that can either motivate or discourage patients from adhering well to treatment. Swaziland is one of the countries that is highly burden with TB/HIV co infected diseases and all effort is being put in place for its eradication by 1935. This projection is according to WHO summit in the year 2015. Training and motivation are the major factors that affect health care workers attitude towards TB patients within a health care set up. The aim of the study is to know the effect of health care workers' attitude on TB patients in the Hhohho region of Swaziland. A cross sectional study using survey method through questionnaire was used to derive a valid and reliable result. This study found out that basic information on either susceptible TB or MDR TB plays a prominent role on patient's treatment. Also, patient's appreciation does motivate nurses to perform better when administering treatment. Lastly, it is noted that nurses' mood sometimes affects administering of treatment on TB patient.

Keywords- Health care worker, TB patients, Bacteria.

I. INTRODUCTION

Tuberculosis is known to be the airborne disease caused by bacteria (Mycobacterium tuberculosis) that most often affect the lungs. That is, spread from person to person through the air when infected individual cough, sneeze or spit the germs into the air. A person needs to inhale only a few of these germs to become infected. About one-third of the world's population has latent TB, which means people have been infected by TB bacteria but are not (yet) ill with disease and cannot transmit the disease. People infected with TB bacteria have a lifetime risk of falling ill with TB of 10%. However, persons with compromised immune systems, such as people living with HIV, malnutrition or diabetes, or people who use tobacco, have a much higher risk of falling ill. Developing active TB (disease) with symptoms (cough, fever, night sweats, weight loss etc.) may be mild for many months

and can lead to delays in seeking care, which results in transmission of the bacteria to others. People ill with TB can infect up to 10-15 other people through close contact over the course of a year. Two third of people infected will die of TB if it's not properly. Since 2000 more than 49 million lives have been saved through effective diagnosis and treatment. Active, drug-sensitive TB disease is treated with a standard 6month course of 4 antimicrobial drugs that are Rifampicin, Isoniazid, Pyrazinamide, and Ethambutol. Also, Drug resistant antimicrobial drugs takes 2years course of standard treatment to complete. The treatment consists of five different classes of TB drugs which are Pyrazinamide, Kanamycin, Levofloxacin, Ethionamide and Terizidone. Quality supervision and support to the patient by a health worker or trained volunteer improve recovery rate. The vast majority of TB cases can be cured when medicines are provided and taken properly. TB occurs in every part of the world. In 2015, the largest number of new TB cases occurred in Asia, with 61% of new cases, followed by Africa, with 26% of new cases. In 2015, 87% of new TB cases occurred in the 30 high TB burden countries. Six countries accounted for 60% of the new TB cases: India, Indonesia, China, Nigeria, Pakistan, and South Africa. Global progress depends on advances in TB prevention and care in these countries. The WHO "End TB Strategy", adopted by the World Health Assembly in May 2014, is a blueprint for countries to end the TB epidemic by driving down TB deaths, incidence and eliminating catastrophic costs. It outlines global impact targets to reduce TB deaths by 90%, to cut new cases by 80% between 2015 and 2030, and to ensure that no family is burdened with catastrophic costs due to TB. Ending the TB epidemic by 2030 is among the health targets of the newly adopted Sustainable Development Goals. WHO has gone one step further and set a 2035 target of 95% reduction in deaths and a 90% decline in TB incidence – similar to current levels in low TB Incidence countries today. (WHO 2015) Africa is facing the worst tuberculosis epidemic since the advent of the antibiotic era. Driven by a generalized human immunodeficiency virus (HIV) epidemic and compounded by weak health care systems, inadequate laboratories, and conditions that promote transmission of infection, this devastating situation has steadily worsened, exacerbated by the emergence of drug-resistant strains of tuberculosis. Africa, home to 11% of the world's population, carries 29% of the global burden of tuberculosis cases and 34% of related deaths, and the challenges of controlling the disease in the region have never been greater. The World Health Organization (WHO) estimates that the average incidence of tuberculosis in African countries more than doubled between 1990 and 2005, from 149 to 343 per 100,000 population. There is a stark contrast to the stable or declining rates in all other regions during this period. In 1990, two African countries, Mali and Togo, had an incidence greater than 300 per 100,000; by 2005, 25 countries had reached that level, and 8 of them had an incidence at least twice that high. There had been financial aid to eradicate TB by the World Bank Board. $122 million was approved for

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eradicating tuberculosis (TB) in Southern Africa's four most TB-ravaged countries: Lesotho, Malawi, Mozambique and Zambia. Tuberculosis continues to stand as one of the world's deadliest diseases—and one of the most preventable and curable. In 2016, initiatives for eradicating tuberculosis in Southern Africa saved more than three million lives. While this certainly demands celebration, statistics revealed simultaneously that 10.4 million people still became infected, with another 1.8 million dying from it. (WORLD BANK 2016) The Kingdom of Swaziland with a population of a million people carries a terrible burden: the world's highest incidence of tuberculosis (TB) superimposed with high levels of co-infection with HIV. A major challenge is the early detection of people with TB: WHO estimates that around 47% of people with TB in the country are not detected or notified. Late detection of TB increases the risk of disease transmission, poor health outcomes and economic hardship. Although early diagnosis of TB and completion of treatment regimens is key, challenges include length of treatment, side-effects, difficulty in accessing health facilities, poverty and costs of transportation. (WHO 2013)

Study objective

The aim of the study is to know the effect of health care workers' attitude on TB patients in the Hhohho region of Swaziland.

Hypotheses

The following hypotheses of the study were stated in their null and alternative forms:

Null Hypothesis

(H_0): Basic information on either susceptible TB or MDTRB does not play a prominent role on patients' treatment.

Alternative Hypothesis

(H_1): Basic information on either susceptible TB or MDTRB plays a prominent role on patients' treatment Null hypothesis

(H_0): Appreciation by patients does not motivate nurses to perform better when administering treatments.

Alternative Hypothesis

(H_1): Appreciation by patients does motivates nurses to perform better when administering treatments Null hypothesis

(H_0): Nurses mood does not affect the administering of treatments on TB patients Alternative Hypothesis

(H_1): Nurses mood does affect the administering of treatments on TB patients.

Review of Literature

HEALTH CARE WORKER'S ATTITUDE

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Ibrahim et al. (2014) state that most health workers have not undergone training in TB management which invariably affects the amount of knowledge acquired and consequently poor patient care such as patient's inability to adhere to treatment. That is poor treatment outcomes and high default rates, the ability of the health care workers to educate counsel, and even communicate well with the patients has a huge positive effect on their knowledge of the diseases, patients' management, and the control strategies. Furthermore, the ability to adhere to treatment by patients and treatment success depends on the interpersonal relationship between the nurse and the patient. Andres et al (2017) focus on continuous training on TB and stress the need for continuous re-training of all TB frontline health personalities. It identifies poor knowledge regarding TB personnel characteristics, diagnoses, and treatment from healthcare workers. Also, specific deficiencies in understanding existed in terms of pediatric TB and gene expert MTB/RIF testing. There was disagreement in attitudes regarding stigma and traditional alternative medicine and poor practice competence. Also, there is high TB burden in Mozambique due difficulty in training health care worker in regard to update of current TB guideline by National TB program. It was indicated that nurses and midwives lack knowledge of TB more but Doctors are better off which invariably has clinical effect on TB patient. Also, knowledge of the use of gene expert is low among health care worker together with the duration of treatment as some were unable to respond accurately to treatment regimen. Patient complains that actions of some healthcare worker such as the use of mask is stigma and nurses rejected the belief that traditional healer help in making TB patients better Minnery et al. (2013) assess the knowledge of TB among frontline TB personnel in high burden areas of Lima, Peru. It shows that Doctors, Nurses, Nurse Technician, communication health workers have limited knowledge of TB especially in treatment. This invariably result into complications such as MDR TB and poor treatment outcome. Also, it is noted risk factor such as people living with HIV, DM and malnourished patient are at high risk. Furthermore, most healthcare worker could not differentiate between latent and active TB. Thus, there is a need for health care worker to raise concern and identify bottleneck to improve TB control and the community should be sensitive on TB this is because some does not know the duration of treatment, thus, defaulting. There is an indication that TB equipment such as laboratory services are inadequate. Also, decrease proportion of healthcare workers to patients. Nwankwo (2015) engages in a across sectional study that assess the knowledge, attitude, and practice among the TB diagnostic patient towards TB infection in the rural and Urban health facilities in Kigali. The study finds out participant knowledge about TB infection on practices of participant using spearman rho. Also, the extent of communicating knowledge on the concept on infection related to national and international concept in the public health programs. It is noted that knowledge of TB is considered poor among study participant. Some know about diagnoses,

transmission, fair understand the consequences of noncompliance to TB treatment. The poor knowledge was most evident on the knowledge of who can be infected with TB infection with regards to homeless people living with HIV and people in prison. Most people admit being ashamed and hopeless if they have TB. Thus, despite training knowledge of TB is not good with poor understanding of symptoms. However, HIV / TB prevention guideline still pose a problem. TB should be addressed through DOTs center with communication and counseling challenges remain a challenge, loss to follow up MDR prevention between patients and treatment supporters' providers. Deliwe (2015), the research study shows that healthcare workers formulate different perception about TB/HIV co infected patient. They see patient with negativity (stubborn, harsh, manipulative, and difficult) and this justify how patient behave during consultative and process of care. TB/HIV patient are perceived to be aggressive hysterical, attention seekers and different due to their multiple infections. This have impact on how patient is being treated, thus, increase burden of diseases as patient might stop taking treatment, ending up in complications and repeating the circle of diseases burden through the spread of infection and hospitalization. However, healthcare workers should consider challenges patient face with in relation to burden of diseases. Also, need to understand the context within which they function and take responsibility for their leadership role, identification of positive behavioral enhance patient health service. Also, most workers with low morale should be identified and train. Also, there can be formation of support group and affected community members should be given health education of TB/HIV. Bond et al (1990) examined community nurses' knowledge and attitudes in 1 England and Scotland and found limited knowledge about many aspects of diseases. They suggested that fear played a powerful role in influencing personal beliefs about certain patient groups. Meierhoffer (1992) documented that the safety for nurses is in knowing the risks, and that lack of education and training for hospital workers contributes to the problem. He also stated that "new hospitals e are starting to realize the value of having their own employee health nurses to specifically target their concerns" (1992, p. 5). 1 A study, conducted between January of 1988 and December of 1990, documented that the occurrence of MDR-TB among patients with HIV infection was significantly higher relative to nonHI V population (Fischl et al. 1992). TB among e patients with HIV infection has been a serious problem since their immune function e is diminished. These patients are seen in increasing numbers by health care providers. Most published research relates to nurses' knowledge about and attitudes e toward caring for patients with AIDS. However, little is known about nurses's knowledge about and attitudes toward tuberculosis. Melby (1992) conducted research about knowledge and attitudes of nurses in Northern Ireland and reported that lack of knowledge toward infectious disease is a serious problem. It is difficult for nurses to plan and evaluate nursing care if they do not know the relevant facts. Inaccurate knowledge and awareness are

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potentially dangerous, in that inappropriate nursing interventions may be carried out (1992). These may be deleterious to the patients and foster transmission to other patients and health care workers. Young (1988) conducted a study of 22 nurses to analyze the effectiveness of a workshop in changing negative attitudes toward caring for AIDS patients. The finding of this study indicated that changing nurses' negative attitudes toward people with infectious diseases is possible. This may enable nurses to provide more sensitive, appropriate, and effective nursing care.

Conceptual Framework

OPERATIONAL DEFINITION OF VARIABLES

Demographic Characteristics: These are participant's gender, age, qualification, and cadre.

Facility: These are participants are from Mkhuzweni health centers of different cadres within the facility.

Healthcare Workers' Attitude Aggravating Factors: This is the mean score of 5 factors influencing health workers attitude such as knowledge acquired, motivation, stigmatization, patient's attitude, and health care workers personality. Each subscale was rated in a 5-point Likert scale as follows; 1 strongly disagree,2 disagree,3 neutral,4 agree and 5 Strongly agree.

TB Patients: These are subjects in which the study is conducted on.

Methodology

RESEARCH DESIGN

A cross-sectional study using a survey method using a self-administered questionnaire. It was conducted between Junes to August 2017 to determine the healthcare workers' attitudes toward TB patients. (More note on statistical interpretation of result)

SETTINGS SAMPLE

The survey was done among healthcare workers in the Mkhuzweni health center located in the Hhohho region of Swaziland. This includes different cadres from support staff, nurses, Doctors, and departmental supervisors. Their ages range from 20 to 50 years.

INCLUSION CRITERIA

All registered staff nurses currently working or last 6 months within the facility

EXCLUSION CRITERIA

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All registered staff nurses on study or annual leave at the time of collection

TOOLS

A questionnaire which is self-administered along with a verbal consent form was used to carry out the study.

PROCEDURE

Data Collection Instrument

A survey self-administered questionnaire was used to collect the data. The questionnaire was divided into 3 sections as follows.

Section A; was about the demographic information of the participants (4 items) including gender, age, qualification, and cadre.

Section B; It was the health care workers' attitude subscales which was the Likert scale.

When answering the question, the respondents were asked how strongly agree or disagree with each statement with numerical values allocated to the responses, such as strongly agree 5, agree 4, neutral 3, disagree 2, strongly disagree 1. The questions determine health care workers attitude with each of 4 determinants which are motivations, training, patient's attitude, and health care workers personality.

Test for Validity and Reliability

To test for validity, the questionnaire was reviewed by two research experts in Swaziland and one research expert in Nigeria.

ETHICAL CONSIDERATION

Permission was given by the facility management of

Emkhuzweni health center

Data Collection Procedure

The questionnaires were distributed by the researcher to all registered nurse within the facility. The researcher would first explain to the health care worker the purpose of the study and its benefits to all health care workers and TB program. Also, questions are allowed before leaving the questionnaire for voluntary answering.

Limitation

The limitation the data collection is that some healthcare workers and patients tend to be bias in answering some of the questions due to influence from colleague while some refused to answer.

Data Presentation and Analysis

Data Presentation

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Data presentation means the known ways of carrying the different forms of data obtained through various data selecting techniques to enable the researcher perform analysis and extract new meaning format. The data collected was presented in simple table.

The questions in the questionnaire were analyzed using simple percentage. The analysis of the questionnaire distributed is stated below. Analysis and Interpretation of Data (Result)

SECTION A

Table 1

Question 1: Demographic Characteristic (Gender)

SEX	NUNBER OF RESPONDENT	PERCENTAGE (%)
MALE	8	40
FEMALE	12	60
TOTAL	20	100

Source: field survey, 2017.

The table above shows that 40% representing 8 respondents were male while 60% representing 12 respondents were female.

This indicates that most of the respondents were female.

Table 2.

QUESTION 2: AGE

AGE GROUP	NUMBER OF RESPONDENT	PERCENTAGE (%)
20 – 25	0	0
26 – 30	6	30
31 – 35	7	35
36 – 40	4	20
41 – 45	0	0
46 – 50	3	15
TOTAL	20	100

Source: field survey, 2017

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The above table shows that, no respondent from age 20-25, 30% represent age 26- 30 with 6 respondents, 35% represent ages 31-35 with 7respondent,20% represent age 36-40 with 4 respondents. No respondent for ages 41-45, 15% represent ages 4550with 3 respondent. It is noted that the highest respondent is from age group of 31 35.

Table 3.

QUESTION 3: QUALIFICATION

QUALIFICATI ON	NO OF RESPONDE NT	PERCENTA GE (%)
CERTIFICATE IN HEALTH COURSE	4	20
DIPLOMA	4	20
DEGREE	9	45
MASTERS	1	5
ADDITIONAL QUALIFICATI ON	2	10
TOTAL	20	100

Source-Field Survey, 2017.

The above table shows that 20% represent 4 certificate holders in health course, 20% for diploma with 4 respondents, and 45% for degree with 9 respondents, 5% for Masters with 1 respondent and 10% for additional qualification with 2 respondents.

Table 4

Question 4-Cadre

CADRE	NUMBER OF RESPONDENT	PERCENTAGE (%)
NURSE	17	85
NURSING SISTER	3	15
TOTAL	20	100

Source: Field survey, 2017 -

The above table shows that 85% representing 17 respondents were nurses while 15% representing 3 respondents were nursing sisters. Thus, highest respondent were nurses.

SECTION B

Training Table 4.1.5.

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QUESTION 1- I have basic information on either susceptible TB or MDRTB

OPTIONS	RESPONSES	PERCENTAGE %
STRONGLY DISAGREE	1	5
DISAGREE	0	0
NEUTRAL	0	0
AGREE	14	70
STRONGLY AGREE	5	25
TOTAL	20	100

Source: Field Survey, 2017.

The above table shows that 5% representing 1 respondent strongly disagree that they have basic information on either TB or MDR-TB, 70% representing 14 respondents agree that they have the basic information, 25% representing 5 respondents strongly agree with the statement while neutral and disagree have no respondent.

Table 6

QUESTION 2: I am skillful and confident when initiating a patient on DS AND MDR treatment.

OPTIONS	RESPONSES	PERCENTAGES
STRONGLY DISAGREE	2	10
DISAGREE	4	20
NEUTRAL	4	20
AGREE	9	45
STRONGLY AGREE	1	5
TOTAL	20	100

Source: Field Survey, 2017.

The table shows how skillful and confident the nurses are when initiating patients on DS and MDR treatment. The inference is confirmed by the data in table 4.1.6. in which 10% representing 2 respondents strongly disagree, 20% representing 4 respondents disagree, 20% representing 4 respondents are neutral, 45% representing 9 respondents agree while 5% representing 1 respondent strongly disagree.

Table 7

QUESTION 3: I can confidently disseminate information on any type of TB to other student nurses.

OPTIONS	RESPONSES	PERCENTAGES %
STRONGLY DISAGREE	0	0

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DISAGREE	2	10
NEUTRAL	5	25
AGREE	10	50
STRONGLY AGREE	3	15
TOTAL	20	100

Source: Field Survey, 2017.

Table 8

Motivation

QUESTION 4: I do collect incentives from the management for attending to TB patients

OPTIONS	RESPONSES	PERCENTAGES %
STRONGLY DISAGREE	8	40
DISAGREE	8	40
NEUTRAL	0	0
AGREE	2	10
STRONGLY AGREE	2	10
TOTAL	20	100

Source: Field Survey, 2017.

Table 9

QUESTION 5: I do collect incentives from the management for attending to TB patients.

OPTIONS	RESPONSES	PERCENTAGES %
STRONGLY DISAGREE	6	20
DISAGREE	7	35
NEUTRAL	2	10
AGREE	4	20
STRONGLY AGREE	1	5
TOTAL	20	100

Source: Field Service, 2017.

Table 10

QUESTION 6: I get motivated by the patients' appreciation during monthly appointment.

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OPTIONS	RESPONSES	PERCENTAGES %
STRONGLY DISAGREE	0	0
DISAGREE	1	5
NEUTRAL	2	10
AGREE	12	60
STRONGLY AGREE	5	25
TOTAL	20	100

STRONGLY AGREE	2	10
TOTAL	20	100

Source: Field Service, 2017.

Table 11

Health Care workers' attitude

QUESTION 7: I attend to patient's base on their behavior

Source: Field Survey, 2017. OPTIONS RESPONSES PERCENTAGES %

STRONGLY DISAGREE 6 30

DISAGREE 5 25

NEUTRAL 2 10

AGREE 5 25

Table 12.

QUESTION 8: I appreciate when patients cooperate and adhere to treatment

	RESPONSES	PERCENTAGES %
STRONGLY DISAGREE	0	0
DISAGREE	0	0
NEUTRAL	2	10
AGREE	11	55

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STRONGLY AGREE	7	35
TOTAL	20	100

Source: Field Survey, 2017.

Table 13.

QUESTION 9: I just do my job accordingly without being concern about patients' presentation

OPTIONS	RESPONSES	PERCENTAGES
STRONGLY DISAGREE	3	15
DISAGREE	4	20
NEUTRAL	4	20
AGREE	6	30
STRONGLY AGREE	3	15
TOTAL	20	100

Source: Field Survey, 2017. Table 14. QUESTION 10: My mood determines how I treat my patients

OPTIONS	RESPONSES	PERCENTAGES
STRONGLY DISAGREE	10	50

Source: Field Survey, 2017.

Table 15.

QUESTION 11: I adjust my behavior to suit patient's expectation

OPTIONS	RESPONSES	PERCENTAGES
STRONGLY DISAGREE	1	5
DISAGREE	4	20
NEUTRAL	5	25
AGREE	6	30
STRONGLY AGREE	4	20
TOTAL	20	100

Source: Field Survey, 2017.

Table 16

QUESTION 12: I apply my nursing ethics each time I am with the patient

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OPTIONS	RESPONSES	PERCENTAGES
STRONGLY DISAGREE	1	5
DISAGREE	0	0
NEUTRAL	0	0
AGREE	7	35
STRONGLY AGREE	12	60
TOTAL	20	100

Source: Field Survey, 2017.

Testing of Hypothesis

Having presented all the information and data gathered from the respondents, it is time to test the hypotheses made in the first chapter of the study using Chi-square method. The hypotheses were tested using appropriate statistical testing using Pearson's Chi-Square (X^2), which is considered appropriate for testing the independence, homogeneity of the variables and a qualitative nature of data of this study. The data collected from research instrument will be processed manually using the formula stated below:

$X^2 = \sum (FO-FE)^2/FE$

Where:

X^2 = Pearson's Chi – Square

FO = Frequency Observed – This is derived from the responses to the questions of concern in the questionnaire.

Hypothesis One:

Null Hypothesis (H_0): Basic information on either susceptible TB or MDTRB does not play a prominent Role on patients' treatment

Alternative Hypothesis (H_1): Basic information on either susceptible TB or MDTRB plays a prominent Role on patients' treatment

Related Question: Question 1

QUESTION 1- I have basic information on either susceptible TB or MDRTB

OPTIONS	RESPONSES	PERCENTAGE %
STRONGLY DISAGREE	1	5
DISAGREE	0	0
NEUTRAL	0	0
AGREE	14	70
STRONGLY AGREE	5	25

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TOTAL	20	100

OPTIONS	Fo	Fe	Fo – Fe	(Fo - Fe)^2	$\frac{(Fo - Fe)^2}{Fe}$

CHI-SQUARE TABLE.

STRONGLY DISAGREE	1	4	-3	9	2.25
DISAGREE	0	4	-4	16	4
NEUTRAL	0	4	-4	16	4
AGREE	14	4	10	100	25
STRONGLY AGREE	5	4	1	1	0.25
TOTAL	20				35.5

Df= (r – 1) (c – 1)

= (5 – 1) (2 – 1)

= (4) (1)

= 4

Level of significant = 0.05

Therefore, X^2 calculate = 35.5; X^2 tabulated = 9.49

Decision Rule

If X^2 calculated is greater than X^2 tabulated, reject the Null Hypothesis (Ho) and accept the alternative hypothesis (H1) but if X^2 calculated is less than X^2 tabulated; accept the null hypothesis. Decision

Since X^2 calculated (35.5) is greater than X^2 tabulated (9.49) the null hypothesis

(H_0) is rejected and it is concluded that the basic information either on susceptible TB or MDR TB plays a prominent role on patients' treatment. Hypothesis Two Null hypothesis

(H_0): Appreciation by patients does not motivate nurses to perform better when administering treatments Alternative Hypothesis

(H_1): Appreciation by patients does motivates nurses to perform better when

Administering treatments

Related Question- Question 6

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QUESTION 6: I get motivated by the patients' appreciation during monthly appointment.

OPTIONS	RESPONSES	PERCENTAGES %

Chi-square Table

OPTIONS	FO	FE	FOFE	(FO-FE)^2	(FO-FE)2 FE
STRONGLY DISAGREE	0	4	-4	16	4
DISAGREE	1	4	-3	9	2.25
NEUTRAL	2	4	-2	4	1
AGREE	12	4	8	64	16
STRONGLY AGREE	5	4	1	1	0.25
TOTAL	20				23.25

Therefore Df (r – 1) (c – 1)

= (5 – 1) (2 – 1)

= (4) (1)

= 4

Level of significant = 0.05

Therefore, X^2 calculate = 23.25; X^2 tabulated = 9.49

Decision

Since X^2 calculated (23.25) is greater than X^2 tabulated (9.49), the null hypothesis (H_0) is rejected and it is concluded that appreciation by patients does motivates nurses to perform better when administering treatments. Hypothesis Three Null hypothesis

(H_0): Nurses mood does not affect the administering of treatments on TB patients Alternative Hypothesis

(H_1): Nurses' mood does affects the administering of treatments on TB patients

Related Question: Question 10

QUESTION 10: My mood sometimes determines how I treat my patients

OPTIONS	RESPONSES	PERCENTAGES
STRONGLY DISAGREE	10	50

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DISAGREE	5		25
	STRONGLY DISAGREE	0	0
	DISAGREE	1	5
	NEUTRAL	2	10
	AGREE	12	60
	STRONGLY AGREE	5	25
	TOTAL	20	100
NEUTRAL	1		5
AGREE	3		15
STRONGLY AGREE	1		5
TOTAL	20		100

Chi-square Table

OPTIONS	FO	FE	FOFE	(FO-FE)^2	(FOFE)2 FE
STRONGLY DISAGREE	10	4	6	36	9
DISAGREE	5	4	1	1	0.25
NEUTRAL	1	4	-3	9	2.25
AGREE	3	4	-1	1	0.25
STRONGLY AGREE	1	4	-3	9	2.25
TOTAL	20				14

Df= (r – 1) (c – 1)

= (5 – 1) (2 – 1)

= (4) (1)

= 4

Level of significant = 0.05

Therefore, X^2 calculate = 14; X^2 tabulated = 9.49

Decision

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Since X^2 calculated (14) is greater than X^2 tabulated (9.49), the null hypothesis (H_0) is rejected and it is concluded that Nurses mood sometimes affects the administering of treatments on TB patients.

Discussion

The analysis and interpretation of data from the field study in relation to the hypothesis formed shows that basic information on either susceptible or MDR TB plays a prominent role on a patient's treatment. According to Adres et al (2017), most healthcare workers need continuous re-training of all TB frontline health personalities and based on the conceptual framework, training of the healthcare workers, precisely nurses can provide the basic information that is needed for effective TB patient care in terms of drug regimen, duration of treatment and adherence issues which is paramount to treatment success rate. It is noted that most nurses have basic knowledge of susceptible and MDR TB and patients can be initiated on regimen without error. Also, any student nurse can be taught effectively by any nurse. This study also shows that patient appreciation motivates nurses to perform better when administering treatment. According to Deliwe (2015), most healthcare workers formulate different perceptions about TB/HIV coinfected patients. They see patients with negativity (stubborn, harsh, manipulative, and difficult). This means that the more a patient shows more sense of appreciating the nurse in charge of his or her care, the more the nurse gets motivated to put in his or her best to ensure that the patient gets better and vice versa which in turn makes the patients to be more cooperative and healthier throughout treatment. Thus, effective treatment outcome. Appreciation could be informed of obedience to nurses' instructions and or communicated verbally. There is also a comparison on whether nurses' moods (nurses' personalities) sometimes affect the administration of treatment on TB patients and the findings prove positive. According to Young (1998), state that Nurses' negative attitude toward people with infectious diseases is possible. The study shows that nurses also have mood swings and this hurts their patients in the process of administering treatment. The basic limitation that was noted during the process of this study is that few nurses do not frequently meet susceptible and MDR TB patients but they are familiar. Summary, Implications, and Recommendations In conclusion, this study shows a minimal effect of health care workers'(Nurses) attitudes on TB patients which is evidenced by allowing the mood to determine how patients will be treated instead of applying a constant ethical principle. Nevertheless, it has been noted that most healthcare workers have some basic information on how to treat TB patients. Recommendations are; National TB Control Program should intensify training of health care workers for positive orientation. Also, there should be rewards such as free lunch for all TB Staff, this serves as an incentive and invariably motivates staff to be dedicated to their job. Finally, there should be ethical enforcement on all nurses, for effective professionalism.

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