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A Study on Factors Contributing to Non-compliance of Direct Observed Treatment of Short Course Chemotherapy (DOTS) regimen among Tuberculosis (TB) patients at selected DOTS center in Kamrup (M), Assam

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Abstract:
Tuberculosis is an ancient human disease that has been a major health challenge in the world and remains as a major health problem in most developing countries. It is common and deadly infectious disease caused by Mycobacterium Tuberculosis, which usually attacks the lungs and can also affect the other parts of the body. India is the highest TB burden country globally accounting for one fifth of the global incidence. Various researchers consistently reported about a number of dropout cases of TB patients which is the leading cause of not curing or reoccurrences of the disease. Simultaneously it is also suspected that there may be certain factors which are not coming to the knowledge of health care professionals that brings about the non-compliance of patients in terms of DOTs therapy. Non probability purposive sampling technique was used to collect the data. A quantitative descriptive survey was adopted for the study, a total of 110 non-compliance of TB patients were selected by using non-probability purposive sampling technique, samples were selected from 6 selected DOTS centre under Kamrup Metro, Assam. Data was collected using structured interview schedule. The study reveals that majority of the non-compliance patients had medium level of non-compliance and some of the factors which contribute non-compliance to dots regimen like side-effect, embarrassment, travelling, felt better after taking medication etc. health education, awareness programme need to organized to give education and awareness to the TB patients.

Keywords*: Non-compliance, DOTS, TB, Factors*

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I. Introduction

Tuberculosis is an ancient human disease that has been a major health challenge in the world and remains as a major health problem in most developing countries. It is common and deadly infectious disease caused by Mycobacterium Tuberculosis, which usually attacks the lungs and can also affect the other parts of the body. And it is a contagious disease it spread through droplet infection. It spreads through infectious person's cough, if the person sneezes or in spitting the mycobacterium may spread into environment. (Wankhede P &Meshram P, 2017)[1]

To control TB and to provide quality care to the patient, the government of India has launched so many programmes, one is, revised national tuberculosis control programme (RNTCP). It is the second largest programme in the world. India's revised national tuberculosis control programme (RNTCP), has adopted the internationally recommended directly observed treatment short course (DOTs) strategy, focusing on providing free quality sputum smear microscopy for diagnosis as well as quality drugs for treatment which is also free of cost. This strategy also provides decentralized treatment services close to patient's residence under observation with the help of government health workers and community volunteers. (Gulani K. K. 2014)[2].

The most important unresolved challenge in TB control is the treatment completion. Treatment will only be effective if the patient completes the regimen which includes a combination of drugs recommended by the physicians according to the dosing schedule. Poor compliance contributes to the worsening of the TB situation by increasing incidence and initiating drug resistance. Resistance to anti TB has also emerged as an important obstacle in the control of the disease. Worldwide patient compliance with anti TB therapy, with an estimate of as low as 40 % in developing countries, remains the principle cause of treatment failure. (Fox W, 1983)[3].

NEED OF THE STUDY:

TB is the second most common cause of death in adults attributes to a single infectious agent. It remains the leading cause of death in India, which bears nearly 30% of the global TB burden. TB remains a major health problem in India. India has more new TB cases annually than any other country in 2008, out of the estimated global annual incidence of 9.4 million TB cases, 1.98 million were reported in India, of which 0.87 million were infectious cases. (Narang K, Hemlata, Saini S.K,2010)[4].

India is the highest TB burden country globally accounting for one fifth of the global incidence. Globally incidence of 8.8 million TB cases per annum; India contributes 1.8 million cases and the number is increasing day by day. . Various researchers consistently reported about a number of dropout cases of TB patients which is the leading cause of not curing or reoccurrences of the disease. Simultaneously it is also suspected that there may be certain factors which are not coming to the knowledge of health care professionals that brings about the non-compliance of patients in terms of DOTs therapy. (Gulani, 2014)[2].

According to the report of Directorate of health services, Assam, under RNTCP programme currently, there are 150 numbers of tuberculosis unit (TU) and 350 numbers of Designated Microscopy Centers (DMC) to control tuberculosis in Assam. More than 7,000 DOT centers are running in the state for providing Directly Observed Treatment (DOT) to the TB patients. According to RNTCP performance indicators total number of patients put on treatment in Assam is 37140, out of which 1759 patients are from Kamrup districts.[5]

RESEARCH PROBLEM:

"A Study on Factors Contributing to Non-compliance of Direct Observed Treatment of Short Course Chemotherapy (DOTS) regimen among Tuberculosis (TB) patients at selected DOTS center in Kamrup (M), Assam".

OBJECTIVES OF THE STUDY:

- To find out the prevalence of non-compliance of tuberculosis patient.
- To assess the factors contributing to non-compliance of TB patients on DOTS regimen.
- To find out the association between level of TB patients non-compliance on DOTS regimen and selected demographic variable.

II. Material And Method

Research approach

In view of the nature of the problem, to accomplish the objectives and to test the hypothesis a **descriptive quantitative approach** was used in the present study.

Research Design

In this study considering the objectives a **descriptive survey design** was used to collect the data on factors contributing to Non-compliance of Direct Observed Treatment of Short Course Chemotherapy (DOTS) regimen among Tuberculosis (TB) patients at selected DOTS centre in Kamrup (M), Assam".

Research Setting:

In Kamrup Metro there are total 6 tuberculosis unit (TU), 13 Designated Microscopy Centre (DMC), 48 DOTs Centre are present. Among this 48 DOTs Centre, 6 DOTs Centre i.e. Guwahati Medical College and Hospital DOTs Centre, Dhirenpara Maternity and child Welfare Hospital DOTs Centre, Ulubari Urban Health Centre, LGB chest hospital DOTs Centre, MMCH DOTs Centre, Sonapur Block PHC DOTs Centre.

Study Population

In the present study, the accessible population comprise of patients who are non-compliance to DOTS regimen and coming for treatment at the 6 selected DOTs centre of Kamrup (M),Assam.

Sample and Sample Size

Sample of the present study were patients who are non-compliance to DOTS regimen and coming for treatment at the 6 selected DOTs centre of Kamrup (M), Assam. The sample size of the study consist of 110 noncompliance tuberculosis patient.

Sampling technique

Non probability purposive sampling technique was used to collect the data

Sampling Criteria

Inclusion criteria

- Patients who had missed one or more of the doses of the prescribed anti TB drugs after registration.
- TB patients who are available at the time of data collection and willing to give consent.

Exclusion criteria

- Patients who are critically ill.

Description of the tool

Based on objectives of the study the tool will be structured interview schedule and it divided into two parts, part 1 and part 2

- **Part 1**: It contains demographic data such as Age, religion, education, family income per month, occupation, type of the family, gender, marital status, number of family member, housing condition
- **Part 2**: Structured interview schedule to assess the factors contributing to non -compliance on DOTs regimen among TB patients at selected DOTs centre Kamrup (M), Assam. This interview schedule consists of 22 questions related to factors contributing to non-compliance on DOTs regimen among TB patient. Questions are divided into three parts:

A. Patient related factors (12 questions)
B. Socio cultural factors (4 questions)
C. Service provider factors (6 questions)

The samples responses are recorded as 1 in response of Yes and 0 in response of No. The minimum and maximum possible scores are 0 and 22 respectively. The score were calculated by using the formula Mean ± SD, and are categorized as:

High:>(Mean ±SD)
Medium: Between (Mean – SD) and (Mean + SD)
Low : < (Mean-SD)

III. Result

Section A: Description of demographic characteristic of respondents.

Table 1: Frequency and percentage distribution of respondents according to socio-demographic variables

SL NO	DEMOGRAPHIC VARIABLE	FREQUENCY(f)	PERCENTAGE(%)	TOTAL	
				f	%
1	**Age in years**				
	<20	12	10.9%		
	20-30	34	30.9%	110	100
	31-40	32	29.1%		
	41-50	19	17.3%		
	>50	13	11.8%		
2	**Gender**				
	Male	65	59.1	110	100
	female	45	40.9		
3	**Educational qualification**				
	Graduate or post graduate	12	10.9		
	Intermediate or post high school diploma	13	11.8		
	High school certificate	52	47.3	110	100
	Middle school certificate	24	21.8		
	Primary school certificate	8	7.3		
	Illiterate	1	0.9		
4	**Religion**				
	Hindu	61	55.5	110	100
	Muslim	36	32.7		
	Christian	13	11.8		
5	**Marrital Status**				
	Married	72	65.5	110	100
	Unmarried	38	34.5		
6	**Family income per month**				
	Rs. 201715-Rs.41429	5	4.6		
	Rs. 15536- Rs. 20714	25	22.7		
	Rs.10357-Rs.15535	36	32.7	110	100
	Rs. 6214- Rs. 10356	31	28.2		
	Rs. 2092- Rs.6213	13	11.8		
7	**Occupation**				
	Profession	1	0.9		
	Semi profession	9	8.2		
	Clerical, shop owner, farmer	44	40.0	110	100
	Skilled worker	25	22.7		
	Semi skilled worker	15	13.6		
	Unskilled worker	2	1.8		
	unemployed	14	12.8		
8	**Type of family**				
	Nuclear family	60	54.5	110	100
	Joint family	49	44.6		
	Extended family	1	0.9		

9	**Number of family members**				
	2	4	3.6	110	100
	3	27	24.6		
	>3	79	71.8		
10	**Housing condition**				
	Live in pacca house	69	62.7	110	100
	Live in kaccha house	41	37.3		

Section B: Description of prevalence rate of Non-compliance of TB patients**.**
This section present the data regarding the prevalence of non-compliance of TB patient. Total numbers of Tuberculosis patient registered in DOTS center are 450 (September 2018 to April 2019). And total number of non- compliance patient on DOTS regimen are 110 patient. So, prevalence rate of non- compliance are-
Prevalence rate (%): Total number of non-compliance TB patient on DOTS regimen÷ total number of registered tuberculosis patient×100
Prevalence rate (%) = 110÷450×100
Prevalence rate = 24.4 %

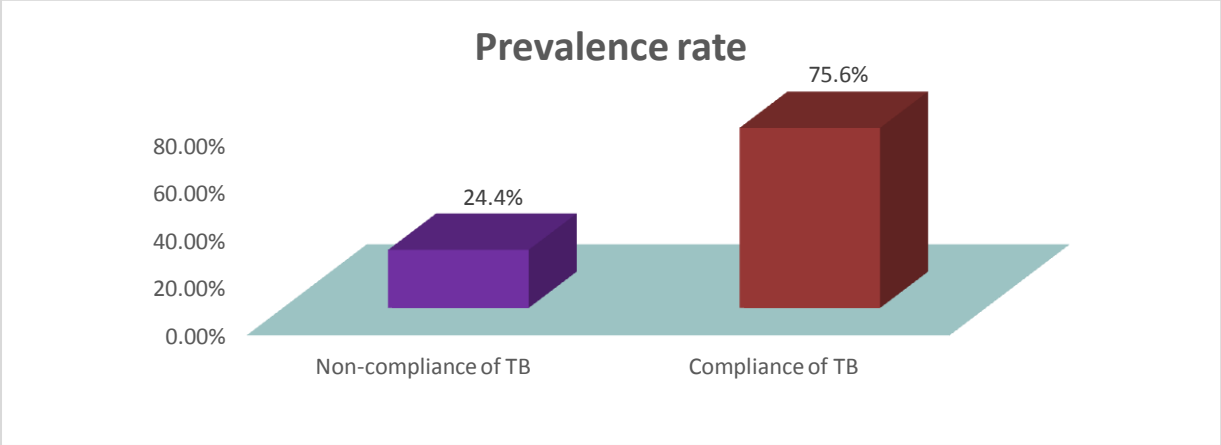

Fig 1: Bar diagram showing the percentage distribution of the prevalence rate of non-compliance of TB patients on DOTS regimen

Table 2.1: Frequency and percentage distribution of respondents according to their level of non-compliance**.**

n=110

Level of non- compliance	**Frequency (f)**	**Percentage (%)**
Low(<11)	14	12.7
Medium (11-13)	80	72.7
High (> 13)	16	14.5
Total	**110**	**100**

Table 2.1: Depicts that majority of the respondents i.e. 80(72.7%) of the TB patients had medium level of non-compliance to DOTS regimen, 16(14.5%) had high level of non-compliance and 14(12.7%) had low level of non-compliance to DOTs regimen.

Table 2.2 - 2.4:Factors contributing to non-compliance of TB patients on DOTS regimen**.**
This table shows the frequency and percentage distribution of factors contributing to non- compliance of TB patients on DOTs regimen. These tables shows the frequency and percentage distribution of factors according to the level of non-compliance of patients on Dots regimen, which is categorized as Low (14), Medium(80), High(16).

Table 2.2: Patient related factors contributing non-compliance of TB patients on DOTS regimen.

n=110

SL. NO	FACTORS		LEVEL OF NON-COMPLIANCE						TOTAL	
			LOW(14)		MEDIUM(80)		HIGH(16)			
			f	%	f	%	f	%	f	%
	Patient related factors									
1	Believe about suffering from TB	Yes	11	78.6	74	92.5	16	100	101	91.81
		No	3	21.4	6	7.5	0	0	9	8.19
2	Feel better after taking medication	Yes	6	42.86	64	80	14	87.5	**84**	**76.36**
		No	8	57.14	16	20	2	12.5	26	23.64
3	Believe about TB can result death if not treated	Yes	10	71.42	74	92.5	16	100	100	90.91
		No	4	28.58	6	7.5	0	0	10	9.09
4	Treatment takes very long to complete	Yes	6	42.86	70	87.5	16	100	**92**	**83.64**
		No	8	57.14	10	12.5	0	0	18	16.36
5	Receiving money from government	Yes	3	21.43	56	70	16	100	75	68.18
		No	11	78.57	24	30	0	0	35	31.82
6	Travel outside	Yes	7	50	39	48.75	15	93.75	**61**	**55.45**
		No	7	50	41	51.25	1	6.25	49	44.55
7	Believe medication does not help feel better	Yes	1	7.15	8	10	4	25	13	11.81
		No	13	92.85	72	90	12	75	97	88.19
8	Alcohol consumption	Yes	3	21.43	30	37.5	9	56.25	42	38.18
		No	11	78.57	50	62.5	7	43.75	68	61.82
9	Feeling embarrassed	Yes	8	57.15	60	75	15	93.75	**83**	**75.5**
		No	6	42.85	20	25	1	6.25	27	24.5
10	Side effect of medication	Yes	8	57.15	56	70	16	100	**80**	**72.72**
		No	6	42.85	24	30	0	0	30	27.28
11	DOTS center too far	Yes	4	28.57	30	37.5	10	62.5	44	40
		No	10	71.43	50	62.5	6	37.5	66	60
12	Don't have enough money for travelling	Yes	0	0	14	17.5	4	25	18	16.36
		No	14	100	66	82.5	12	75	92	83.64

Table 2.3: Socio-cultural factors contributing non-compliance of TB patients on DOTS regimen.

n=110

SL.NO	FACTORS		LEVEL OF NON-COMPLIANCE						TOTAL	
			LOW		MEDIUM		HIGH			
			f	%	f	%	f	%	f	%
	Socio cultural factors									
13	Support from family	Yes	5	35.72	43	53.75	12	75	60	54.55
		No	9	64.28	37	46.25	4	25	50	45.45
14	Anyone opinion important against taking medication	Yes	1	7.15	6	7.5	1	6.25	8	7.27
		No	13	92.85	74	92.5	15	93.75	102	92.73
15	Visited quacks	Yes	3	21.5	8	10	2	12.5	13	11.82
		No	11	78.5	72	90	14	87.5	97	88.18
16	Any cultural belief	Yes	0	0	3	3.75	0	0	3	2.72
		No	14	100	77	96.25	16	100	107	97.28

Table 2.4: Service provider related factors contributing non-compliance of TB patients on DOTS regimen.

n=110

SL.NO	FACTORS		LEVEL OF NON-COMPLIANCE						TOTAL	
			LOW		MEDIUM		HIGH			
			f	%	f	%	f	%	f	%
	Service provider related factors									
17	Difficulty in getting appointments and medicine	Yes	0	0	0	0	0	0	0	0
		No	14	100	80	100	16	100	110	100
18	Bad relationship with health care provider	Yes	0	0	0	0	1	6.25	1	0.91
		No	14	100	80	100	15	93.75	109	99.09
19	Operating times for the clinic feasible	Yes	13	92.85	77	96.25	16	100	106	96.36
		No	1	7.15	3	3.75	0	0	4	3.64

20	Counselling by care provider	Yes	14	100	80	100	16	100	110	100
		No	0	0	0	0	0	0	0	0
21	Card indicating review date by health care provider	Yes	14	100	80	100	16	100	110	100
		No	0	0	0	0	0	0	0	0
22	Difficult to visit DOTS Centre on regular basis	Yes	14	100	80	100	16	100	**110**	**100**
		No	0	0	0	0	0	0	0	0

Table 2.2-2.4: findings shows that patients said feel better after taking medication, treatment takes very long to complete, they travel outside, feel embarrassed, side effect of medication, difficult to visit DOTs centre on regular basis. These are the factors which contribute non-compliance of TB patients on DOTs regimen.

Section D: Association between level of TB patients non-compliance on DOTS regimen and selected demographic variable**.**

This section deals with the assessment of association between level of TB patients non-compliance on DOTS regimen and selected demographic variable**.** such as age, sex, religion, educational qualification, marital status, per capita monthly income of family, occupation, type of family, number of family member, type of house. The findings related to this section are presented in tables (table 3.1 to 3.13)

Based on the findings of the section, research hypothesis will be tested which is formulated as-

H_1: There is a significant association between level of TB patients non-compliance on DOTS regimen and selected demographic variable**.**

Table 3.1: Association between level of TB patients non-compliance on DOTS regimen and age.

n=110

Age in year	Level of non-compliance			Total	Chi squ	df	P value	Remarks
	Low	Medium	High					
< 20	3	9	0	12	7.94	8	.440	NS
20-30	3	24	7	34				
31-40	3	24	5	32				
41-50	3	12	4	19				
>50	2	11	0	13				
Total	**14**	**80**	**16**	**110**				

*NS= Not significant at 0.05 level of significance (P>0.05)

Table 3.1: Shows the data presented in the table that the obtained Chi square value is 7.94 (df=8) which is less than tabulated value 15.51 and p value .440 > 0.05, which statistically not significant. So, it can be summarized that there is no significant association between level of TB patients non-compliance on DOTS regimen and age. Hence the research hypothesis (H_1) could not be accepted.

Table 3.2: Association between level of TB patients non-compliance on DOTS regimen and gender.

n=110

Gender	Level of Non Compliance			Total	Chi squ	df	p value	Remarks
	Low	Medium	Low					
Male	7	45	13	65	3.97	2	.136	NS
Female	7	35	3	45				
Total	**14**	**80**	**16**	**110**				

*NS= Not significant at 0.05 level of significance (P>0.05)

Table 3.2: Shows the data presented in the table that the obtained Chi square value is 3.97 (df=2) which is less than tabulated value 5.99 and p value .136 > 0.05 which is statistically not significant. So, it can be summarized that there is no significant association between level of TB patients non-compliance on DOTS regimen and gender. Hence the research hypothesis (H_1) could not be accepted

Table 3.3: Association between level of TB patients non-compliance on DOTS regimen and education qualification**.**

n=110

Education Qualification	Level of Non- Compliance			Total	Chi Sq	df	P value	Remarks
	Low	Medium	High					
Graduate/ post graduate	1	7	4	12	11.01	10	.357	NS
Intermediate or post high school certificate	1	10	2	13				
High School certificate	4	40	8	52				
Middle School certificate	6	17	1	24				
Primary school certificate	2	5	1	8				
Illiterate	0	1	0	1				
Total	**14**	**80**	**16**	**110**				

*NS=Not significant at 0.05 level of significance (P>0.05)

Table 3.3**:**Shows the data presented in the table that the obtained Chi square value is 11.01(df=10) which is less than tabulated value 18.31 and p value .357 > 0.05 which is statistically not significant. So, it can be summarized that there is no significant association between level of TB patients non-compliance on DOTS regimen and education qualification. Hence the research hypothesis (H_1) could not be accepted.

Table 3.4: Association between level of TB patients non-compliance on DOTS regimen and religion.

n=110

Religion	Level of Non-compliance			TOTAL	Chi Sq	df	P value	Remarks
	Low	Medium	High					
Hindu	7	41	13	61	5.12	4	.276	NS
Muslim	5	29	2	36				
Christian	2	10	1	13				
Total	**14**	**80**	**16**	**110**				

*NS=Not significant at 0.05 level of significance (P>0.05)

Table 3.4:Shows the data presented in the table that the obtained Chi square value is 5.12(df=4)which is less than tabulated value 9.49 and p value .2.76> 0.05 which is statistically not significant. So, it can be summarized that there is no significant association between level of TB patients non-compliance on DOTS regimen and religion. Hence the research hypothesis (H_1) could not be accepted.

Table 3.5: Association between level of TB patients non-compliance on DOTS regimen and marital status.

n=110

Marital Status	Level of non compliance			Total	Chi squ	df	P value	Remarks
	Low	Medium	High					
Married	7	53	12	72	2.15	2	.342	NS
Unmarried	7	27	4	38				
Total	**14**	**80**	**16**	**110**				

*NS= Not significant at 0.05 level of significance (P>0.05)

Table 3.5: Shows the data presented in the table that the obtained Chi square value is 2.15(df=2) which is less than tabulated value 5.99 and p value .342 > 0.05 which is statistically not significant. So, it can be summarized that there is no significant association between level of TB patients non-compliance on DOTS regimen and marital status. Hence the research hypothesis (H_1) could not be accepted.

Table 3.6: Association between level of TB patients non-compliance on DOTS regimen and family income per month.

n=110

Family income per month	Level of Non- Compliance			Total	Chi Squ	df	P value	Remarks
	Low	Medium	High					
Rs 20715 - Rs 41429	0	3	2	5	7.26	8	.509	NS

Rs 15536- Rs20714	3	17	5	25				
Rs 10357- Rs	3	27	6	36				
Rs 6214- Rs10356	6	23	2	31				
Total	**14**	**80**	**16**	**110**				

*NS= Not significant at 0.05 level of significance (P>0.05)

Table 3.6: Shows the data presented in the table that the obtained Chi square value is 7.26(df=8)which is less than tabulated value 15.51 and p value .509 > 0.05 which is statistically not significant. So, it can be summarized that there is no significant association between level of TB patients non-compliance on DOTS regimen and family income per month. Hence the research hypothesis (H_1) could not be accepted.

Table 3.7: Association between level of TB patients non-compliance on DOTS regimen and occupation.

n=110

	Level of Non Compliance							
Occupation	**Low**	**Medium**	**High**	**Total**	**Chi Squ**	**df**	**P value**	**Remarks**
Profession	0	1	0	1	21.51	12	.043	S
Semi profession	1	3	5	9				
Clerical, shop	4	32	8	44				
Skilled worker	3	21	1	25				
Semi skilled	2	11	2	15				
Unskilled	1	1	0	2				
Unemployed	3	11	0	14				
Total	**14**	**80**	**16**	**110**				

*S= Significant at P<0.05

Table 3.7: Shows the data presented in the table that the obtained Chi square value is 21.51(df=12) which is high than tabulated value 21.03 and p value .043 < 0.05 which is statistically significant. So, it can be summarized that there is a significant association between level of TB patients non-compliance on DOTS regimen and occupation. Hence the research hypothesis (H_1) is retained.

Table 3.8: Association between level of TB patients non-compliance and type of family.

n=110

Type of Family	**Level of Non-Compliance**				**Chi Squ**	**df**	**P value**	**Remarks**
	Low	**Medium**	**High**	**Total**				
Nuclear	7	45	8	60	0.81	4	.938	NS
Joint	7	34	8	49				
Extended	0	1	0	1				
Total	**14**	**80**	**16**	**110**				

*NS= Not significant at 0.05 level of significance (P>0.05)

Table 3.8: Shows the data presented in the table that the obtained Chi square value is 0.81(df=4)which is less than tabulated value 9.49 and p value .938 > 0.05 which is statistically not significant. So, it can be summarized that there is no significant association between level of TB patients non-compliance on DOTS regimen type of family. Hence research hypothesis (H_1) could not be accepted.

Table 3.9: Association between level of TB patients non-compliance on DOTS regimen and numbers of family members.

n=110

No. of Family Member	Level of non-compliance			Total	Chi Squ	df	p value	Remarks
	Low	Medium	High					
2	0	3	1	4	2.49	4	.646	NS
3	3	22	2	27				
>3	11	55	13	79				
Total	**14**	**80**	**16**	**110**				

*NS= Not significant at 0.05 level of significance (P>0.05)

Table 3.9: Shows the data presented in the table that the obtained Chi square value is 2.49(df=4)which is less than tabulated value 9.49 and p value .646 > 0.05 which is statistically not significant. So, it can be summarized that there is no significant association between level of TB patients non-compliance on DOTS regimen and numbers of family members. Hence the research hypothesis (H_1) could not be accepted.

Table 3.10: Association between level of TB patients non-compliance on DOTS regimen and housing condition.

n=110

Housing condition	Level of non-compliance			Total	Chi Squ	df	p value	Remarks
	Low	Medium	High					
Pucca	6	49	14	69	6.64	2	.036	S
Kuccha	8	31	2	41				
Total	**14**	**80**	**16**	**110**				

*S= Significant at P<0.05

Table 3.10: Shows the data presented in the table that the obtained Chi square value is 6.64(df=2) which is high than tabulated value 5.99 and p value .036 < 0.05 which is statistically significant. So, it can be summarized that there is a significant association between level of TB patients non-compliance on DOTS regimen and housing condition. Hence the research hypothesis(H_1) is retained.

From the above tables (3.1 to 3.10), it shows that hypothesis ($H_{1)}$ 'There is a significant association between level of TB patients non-compliance on DOTS regimen and selected demographic variable' is accepted for the demographic variables occupation and housing condition and for the variables age, sex, religion, educational qualification, marital status, per capita monthly income of family, type of family, number of family member the hypothesis could not be accepted

IV. Discussion

Description of respondents characteristics:

In this study, majority of the respondents are under 20-30 years of age i.e. 34(30.9%), Majority of the respondents were male i.e. 65(59.1%), Majority of the respondents had high school certificate education qualification i.e. 52(47.3%), Majority of the respondents are belonged to Hindu religion i.e. 61(55.5%), Majority of the respondents are married i.e. 72(65.5%), Majority of the respondents i.e. 36(32.7%) had 10357-25535 family income per month, Majority of the respondents i.e. 44(40%) had clerical, shop owner, farmer as an occupation, Majority of the respondents i.e. 60(54.5%) had nuclear family, Majority of the respondents i.e. 79(71.8%) had >3 family members, Majority of the respondents i.e. 69(62.7%) had pucca house.

The findings were supported by a study conducted by Muttalut M. KhidirElnimeiri M (2017)[12]on Factors contributing to non-compliance with treatment among tuberculosis patients-Kassala State- Sudan-2016. The study showed that 26.7% (16) of the respondents were between the age of 21-29 years, 76.7% (46) of the respondents were male, 46.7% (28) had completed their secondary education, 38.3% (23) respondents were farmer, 76.7% (46) of the respondents were married

Findings related to prevalence rate of non-compliance of TB

In this study, the prevalence rate of non-compliance of TB patients are 24.4%.

This finding was supported by as study conducted by Waima T.T, Yimer W. K, BatiTemesgen, Gesesw Hailey Abrha(2017) on the prevalence and factors associated for anti-tuberculosis treatment non-adherence among pulmonary tuberculosis patients in public health care facilities in South Ethiopia: a cross-sectional study. The study showed the prevalence of non-adherence towards anti-Tb treatment was 24.5%.

Findings related to factors contributing to non-compliance of TB patients on DOTS regimen:

In this study factors which contribute non-compliance of TB patients on DOTs regimen are 76.36% (84) respondents said feel better after taking medication, 83.64%(92) respondent said that treatment takes very long to complete, 55.45%(61) respondent said that they travel outside their locality , 75.5%(83) feel embarrassed to take medication, 72.72% (80) respondent said that side effect of medication, all respondents i.e. 100%(110) respondent said that difficult to visit DOTs centre on regular basis.

This study was supported by a study conducted by Wankaede P. Meshram P (2017)[1] on factors contributing to non-compliance with the treatment regimen among pulmonary tuberculosis patients in Wardha district of Maharastra. The results shows that the cause of non-compliance in the way that 87.5% of patients had side effects of drugs, 72.5% of patients had social stigma and discrimination, 50 % of patients felt better after taking the treatment for about two month, 75% patients were non-compliance because of long duration of treatments.

Findings related to association between level of TB patients non-compliance on DOTS regimen and selected demographic variable

In the present study the findings related to association between level of TB patients non-compliance on DOTS regimen and selected demographic variable, shows that there is significant association between the level of TB patients non-compliance on DOTS regimen and selected variables like occupation (x^2=21.51, p value=.043) and housing condition (x^2=6.64, p value= .036), at ($p<0.05$) level of significance.

This study was supported by a study conducted by Muttalut M. KhidirElnimeiri M (2017)[12] on factors contributing to non-compliance with treatment among tuberculosis patients-Kassala State- Sudan-2016. Researcher conducted a cross-sectional study was conducted in Kassala State. The results shows that Lower education level and occupation of the patients also found to be significantly associated with treatment default with P-value 0.024 and 0.045 respectively.

V. Conclusion:

Non-compliance is a major problem in the treatment of tuberculosis. Tuberculosis is a devastating health illness, and has a direct impact on the functioning and the disability level of the individual. Despite this, individual fail to take their treatment. This study was conducted on Factors Contributing to Non-compliance of Direct Observed Treatment of Short Course Chemotherapy (DOTS) regimen among Tuberculosis (TB) patients at selected DOTS centre in Kamrup (M), Assam". The following findings were concluded, the factors which contribute non-compliance to DOTs regimen are difficulty to visit DOTs centre on regular basis, treatment takes very long, feel better after taking medication, so stop, Feel embarrassed, side-effect of medication, travel outside of their locality. This are the factors which contribute non-compliance to DOTS regimen.

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