

# A Study to Assess the Effectiveness of Planned Teaching Program on the Knowledge and Practice Regarding Dietary Pattern among Mothers of Children with Tuberculosis Admitted in Pediatric Ward at KGMU Hospital, Lucknow

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## ABSTRACT

Malnutrition and Tuberculosis (chronic infectious disease) are both problems of considerable magnitude in the most underdeveloped regions of the world. Malnutrition can lead to secondary immunodeficiency that increases the host susceptibility to infection. The aim of the study was to assess the effectiveness of planned teaching program on the knowledge and practice regarding dietary pattern among mothers of children with tuberculosis admitted in pediatric ward. Quasi-experimental with two groups pre test post test design was used for 60 mothers at IPD and OPD of pediatric department and purposive sampling technique was used. Self structured questionnaire was used to assess knowledge and checklist for practice. In post test experimental group mothers have 63.3% average knowledge, 26.6% poor knowledge and 10% good knowledge while in the control group, 53.3% poor knowledge, 46.6% average knowledge and none have good knowledge. In experimental group mean score was 17.9 1.96 while in control group mean score was 11.8 2.99. At the "p" value <0.05, the calculated t-value (3.21) was compared with the tabulated value (2.01). In post test experimental group, mothers have 53.3% good practice, 46.6% average practice and none have poor practice while in the control group, 63.33% average practice, 23.3% poor practice and 13.3% good practice. In experimental group mean score was 19.13 1.99 while in the control group, mean score was 14.06 2.85. At the "p" value <0.05, the calculated t value (3.28) was compared with the tabulated value (2.01). These findings reveal that the planned teaching program on dietary pattern was effective.

**KEYWORDS:** Assess, Knowledge, Practice, Mothers, Tuberculosis, Effectiveness, Planned teaching program

## INTRODUCTION

Tuberculosis (TB) in a child represents recent and ongoing transmission of TB bacteria. Young children are most likely to become exposed and infected with TB by close contacts, such as family members. Children can develop TB disease at any age, but the severe forms of TB are most common among children between 1 and 4 years of age. Children can get sick with TB disease very soon after being infected with TB bacteria, or they can get sick at any time later in life. They can even infect their own children, decades later, if not treated.<sup>2</sup>

The term consumption has been virtually synonymous with tuberculosis throughout the history and the link between tuberculosis and malnutrition has long been recognized; malnutrition may predispose people to the development of clinical disease and tuberculosis can contribute to malnutrition. Before the advent of antituberculosis chemotherapy, a diet rich in calories, proteins, fats, minerals, and vitamins was generally considered to be an important, if not essential factor in treatment of tuberculosis. The

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introduction of specific antituberculosis drugs, however, has so radically altered the management of the disease that the role of diet should be considered in the light of the advances in treatment.<sup>4</sup>

## Need of the Study

Malnutrition can lead to secondary immunodeficiency that increases the host susceptibility to infection. In patients with TB, it leads to reduction in appetite, nutrient malabsorption, micronutrient malabsorption and altered metabolism leading to wasting. Nutritional status determines normal health and functioning of all systems in body, including the immune system which is responsible for host resistance to various infectious diseases. Both PEM and micronutrient deficiencies increase the risk of TB.<sup>10</sup>

India has one of the highest tuberculosis (TB) burdens globally, accounting for 20% of the new 8.6 million TB cases annually. While the burden of childhood TB in India is not known, regional data from the World Health Organization

(WHO) indicate that sputum microscopy smear-positive TB in children (<14 years old) accounts for 0.6%–3.6% of all reported cases. However, because the majority of children are sputum microscopy smear negative, these data underestimate the true burden of childhood TB. It is estimated that childhood TB constitutes 10–20% of all TB in high burden countries, accounting for 8–20% of TB-related deaths.<sup>12</sup>

Malnutrition is also highly prevalent in children living in tuberculosis endemic countries and contributes to 2.2 million deaths in children fewer than 5 years of age globally. Poverty, overcrowding, food insecurity, and human immunodeficiency virus (HIV) further set the stage for both malnutrition and poor infection control. Although the World Health Organization (WHO) states that malnutrition is a significant risk factor for TB.<sup>15</sup>

### Objectives:

The objectives of the study are:

1. To assess knowledge regarding dietary pattern among mothers of children with tuberculosis.
2. To assess practice regarding dietary pattern among mothers of children with tuberculosis.
3. To assess the effectiveness of planned teaching program on the knowledge regarding dietary pattern among mothers of children with tuberculosis.
4. To assess the effectiveness of planned teaching program on the practice regarding dietary pattern among mothers of children with tuberculosis.
5. To find out association between post test knowledge score of experimental group and selected demographic variables.
6. To find out association between post test practice score of experimental group and selected socio demographic variable.

### Hypothesis:

- H<sub>0</sub>:** There will be no significant difference between knowledge and practice of the mothers after planned teaching program.
- H<sub>1</sub>:** There will be significant difference between knowledge of experimental and control group of the mothers after planned teaching program.
- H<sub>2</sub>:** There will be significant difference between practices of experimental and control group of the mothers after planned teaching program.
- H<sub>3</sub>:** There will be significant difference between post test knowledge score of experimental group and selected socio demographic variables.
- H<sub>4</sub>:** There will be significant difference between post test practice score of experimental group a

### Materials and Methodology:

**Research approach and Design:** In this study Quasi experimental research approach was used.

The research design used for this study is two group pre-test and post-test, pre-experimental design.

**Setting of the study:** The study was conducted IPD & OPD of pediatric department at KGMU Lucknow.

**Study duration:** December 2017 to January 2019

### Study population:

In this study the study population consists of all the mothers of children with tuberculosis admitted to IPD and OPD of pediatric department.

**Sample size:** 60

### Sampling Criteria:

#### A. Inclusion criteria:

1. Mothers of children admitted with tuberculosis.
2. Mothers of 1-12 years of age group children.
3. Mothers who are willing to participate in the study.
4. Mothers who can understand Hindi language.

#### B. Exclusion criteria:

1. Mothers who are not available at the time of data collection.
2. Mothers who have history of mental illness or any kind of physical illness.
3. Mothers who have history of hearing disability.

### Methods for data collection:

Data collection is a gathering of information relevant to a research problem. A questionnaire refers to a device for securing answers to questions by using a form which the respondent fills by himself or herself. But in case of uneducated respondent I fill answer sheet according to answer given by mother when I ask same questions to them. The instrument used for collecting data in the present study was a structured self administered questionnaire. After obtaining the permission from the concerned authorities the investigator introduced her to the study subjects and explains the purposes of study. The data was collected by using structured questionnaire after taking written consent from the subjects.

### Plan for Data Analysis:

The data was analyzed by using descriptive and inferential statistics.

### Descriptive statistics:

- Frequencies and percentage used to describe the sample characteristics and item wise analysis.
- Mean and standard deviation were used to quantify the level of knowledge and practice.

### Inferential statistics:

- Independent t-test (unpaired t-test) was used to examine the effectiveness of planned teaching program.
- Chi-square test was used to find out the association of socio-demographic factors of people with post-test knowledge and practice.

### Results:

The data were collected were tabulated, analyzed and interpreted using descriptive and inferential statistics. The data have been presented under the following sections:

**SECTION 1:** Description of selected socio demographic variables of the mothers and children.

**SECTION 2(a):** Analysis and interpretation of pre -test and post- test score of knowledge on dietary pattern.

**SECTION 2(b):** Analysis and interpretation of pre -test and post- test score of practice on dietary pattern.

**SECTION 3(a):** Determine effectiveness of planned teaching program on the knowledge of mothers regarding dietary pattern of children with tuberculosis.

**SECTION 3(b):** Determine effectiveness of planned teaching program on practice of mothers regarding dietary pattern of children with tuberculosis.

**SECTION 4(a):** Association of post-test level of knowledge score of experimental group with `socio demographic variables.

**SECTION 4(b):** Association of post-test level of practice score of control group with `socio demographic variables

**SECTION -1: Description of selected socio demographic variables of the mothers and children**

**Table 1: Frequency and percentage distribution of mothers as per their demographic variables**

**N=60**

S. NO.	Demographic variables	Experimental Group(n <sub>1</sub> )		Control Group(n <sub>2</sub> )	
		Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
1.	Age (in years)				
	A. Less than 20	1	3.3	2	6.7
	B. 20-30	13	43.3	14	46.7
	C. 30-40	13	43.3	11	36.7
	D. 41 and above	3	10	3	10
2.	Educational qualification				
	A. Profession or honors	0	0	1	3.3
	B. Graduate or post graduate	6	20	3	10
	C. Intermediate or post high school diploma	9	30	8	26.7
	D. High school certificate	4	13.3	8	26.7
	E. Middle school certificate	7	23.3	4	13.3
	F. Primary school certificate	3	10	3	10
G. Illiterate	1	3.3	3	10	
3.	Occupation				
	A. Profession	2	6.67	3	10
	B. semi-profession	4	13.3	3	10
	C. clerical, shop owner	9	30	2	6.7
	D. skilled worker	6	20	5	16.7
	E. semi-skilled worker	4	13.3	8	26.7
	F. unskilled worker	4	13.3	7	23.3
G. unemployed	1	3.3	2	6.7	
4.	Family income per month(in Rs.)				
	A. >41430	1	3.3	2	6.7
	B. 20715-41429	9	30	3	10
	C. 15536-20714	3	10	4	13.3
	D. 10357-15535	8	26.7	5	16.7
	E. 6214-10356	4	13.3	10	33.3
	F. 2092-6213	5	16.7	6	20
G. <2091	0	0	0	0	
5.	Religion				
	A. Hindu	27	90	15	50
	B. Muslim	3	10	15	50
	C. Christian	0	0	0	0
	D. Others	0	0	0	0
6.	Area of residence				
	A. Urban	12	40	19	63.3
	B. Rural	18	60	11	36.7
7.	Type of family				
	A. Joint	15	50	11	36.7
	B. Nuclear	15	50	19	63.3
8.	Duration of illness				
	A. <4 weeks	20	66.7	13	43.3
	B. 4-8 weeks	9	30	13	43.3
	C. > 8 weeks	4	13.3	4	13.3
9.	Past history of tuberculosis				
	A. Present	16	53.3	5	16.7
	B. Absent	14	46.7	25	83.3
10.	Previous exposure to information on dietary pattern of tuberculosis children				
	A. Yes	8	26.7	6	20
	B. No	22	73.3	24	80
11.	Number of rooms in the home				
	A. 1	14	46.7	12	40
	B. 2	12	40	13	43.3
	C. More than 3	4	13.3	5	16.7

12.	Number of windows in the rooms					
	A. None		8	26.7	7	23.3
	B. 1		14	46.7	15	50
	C. 2		8	26.7	8	26.7
13.	Number of children					
	A. 1		1	3.3	1	3.3
	B. 2		14	46.7	12	40
	C. 3		11	36.7	15	50
	D. More than four		4	13.3	2	6.7

Table 1 depicts that:

In the experimental group, majority of the 13 (43 %) of mothers were 20-30 and 30-40 years. Others 3(10 %) were in the age group of >41 years and 1(3.3 %) were in the age group of < 20 years. Whereas in the control group, 14 (46.5 %) were in the age group 20-30. Other samples 11 (36.7 %) were in the age group of 30-40 years, 3(10 %) were in the age group of >41 years and 2(6.7 %) were in the age group of < 20 years

**SECTION -2 (a): Analysis and interpretation of pre and post- test knowledge score of mothers regarding dietary pattern**

**Table 2: Frequency and percentage distribution of samples based on the pre-test and post test level of knowledge among control and experimental group**

N=60

Level of Knowledge	Pre-Test				Post-Test			
	Exp n <sub>1</sub> =30		Cont n <sub>2</sub> =30		Exp n <sub>1</sub> =30		Cont n <sub>2</sub> =30	
	f	%	f	%	f	%	F	%
<b>Good</b>	0	0	0	0	3	10	0	0
<b>Average</b>	13	43.3	12	40	19	63.3	14	46.6
<b>Poor</b>	17	56.6	18	60	8	26.6	16	53.3

Table 2 reveals that-

In pre test experimental group, majority of the mothers 17 (53.3%) have poor knowledge, 13(43.3%) have average knowledge and none have good knowledge. In the control group, 18 (60%) have poor knowledge, 12 (40%) have average knowledge and none have good knowledge. In post test experimental group, majority of the mothers 19 (63.3 %) have average knowledge, 8 (26.6%) have poor knowledge and 3(10%) have good knowledge. while in the control group, 16 (53.3%) have poor knowledge, 14 (46.6%) have average knowledge and none have good knowledge.

**Table 3: Comparison of mean and standard deviation of pre test and post test knowledge score of experimental and control group**

N=60

Level of Knowledge	Pre-Test		Post-Test	
	Exp n <sub>1</sub> =30	Cont n <sub>2</sub> =30	Exp n <sub>1</sub> =30	Cont n <sub>2</sub> =30
<b>Mean</b>	5.53	5.6	17.9	11.8
<b>Standard Deviation</b>	2.75	1.89	1.96	2.99

Table 3 depicts that-

Data from this table shows that mean of the pre-test score in experimental group was 5.53 with a standard deviation of 2.75 whereas in control group was 5.6 with a standard deviation of 1.89. Post-test mean in experimental group was 17.9 with standard deviation 1.96 whereas in the control group mean score was 11.8 with standard deviation of 2.99. These findings indicate that of knowledge level of mothers improved after planned teaching program.

**SECTION -2 (b): Analysis and interpretation of pre -test and post- score of mother’s practice regarding dietary pattern**

**Table 4: Frequency and percentage distribution of samples based on the pre-test and post test level of practice among control and experimental group**

N=60

Level of practice	Pre-test				Post-test			
	Exp n <sub>1</sub> =30		Cont n <sub>2</sub> =30		Exp n <sub>1</sub> =30		Cont n <sub>2</sub> =30	
	f	%	f	%	f	%	F	%
<b>Good</b>	1	3.3	0	0	16	53.3	4	13.3
<b>Average</b>	17	56.6	16	53.3	14	46.6	19	63.3
<b>Poor</b>	12	40	14	46.6	0	0	7	23.3

Table 4 depicts that:

In pre test experimental group, Majority of the mothers 17 (56.6%) have average practice, 12 (40%) have good practice and 1 (3.3%) has good practice. In the control group, 16 (53.3%) have average practice, 14 (46.6 %) poor practice and none have good practice. In post test experimental group, majority of the mothers 16 (53.3%) have good practice, 14 (46.6%) have average practice and none have poor practice. while in the control group, 19 (63.3%) have average practice, 7 (23.3 %) have poor practice and 4 (13.3 %) have good practice. These finding indicated that practice level of the mothers was improved after planned teaching program because post test practice score was higher in the experimental group than the control group but in pre test, both have scored same.

**Table 5: Comparison of mean and standard deviation of pre test and post test knowledge score of experimental and control group**

Level of practice	Pre-test		Post-test	
	Exp n <sub>1</sub> =30	Cont n <sub>2</sub> =30	Exp n <sub>1</sub> =30	Cont n <sub>2</sub> =30
<b>Mean</b>	13.4	13.1	19.13	14.06
<b>Standard deviation</b>	1.99	1.83	1.99	2.85

Table 5 depicts that:

Data from the table shows that mean pre-test score in experimental group was 13.4 with a standard deviation of 1.99 whereas in control group was 13.1 with a standard deviation of 1.83. Mean post-test score in experimental group was 19.13 with standard deviation 1.99 whereas in control group was 14.06 with standard deviation of 2.85.

Mean post test score was significantly higher than the mean pre test score of experimental group which indicated that of practice level of mother improved.

**SECTION -3(a): Determine effectiveness of planned teaching program on the knowledge of mothers regarding dietary pattern of children with tuberculosis**

**Table 6: Comparison of mean, mean difference, standard deviation and 't' value of post test level of knowledge among experimental group and control group**

Knowledge	N	Mean	SD	Mean difference	df	Independent t- value	Tabulated value
Experimental Group (n <sub>1</sub> )	30	17.9	1.96	6.1	58	3.21	2.01
Control Group (n <sub>2</sub> )	30	11.8	2.99			P <0.05	

Table 6 depicts that:

Hypothesis testing

H<sub>0</sub>: There is no significant difference between post-test mean of the care givers in experimental and control group

H<sub>1</sub>: There is a significant difference between post-test mean of the care givers in experimental and control group.

P value was <0.05 and table value for two tailed test was 2.01. The calculated t- value (3.21) lies beyond the table value (2.01), so the null hypothesis was rejected and alternative hypothesis was accepted which indicated that there was significant change in the knowledge level of experimental and control group. So, this was evident that the planned teaching program on dietary pattern was effective. This clearly showed that the implementation of planned teaching program on post test level of knowledge among mothers of children with tuberculosis in the experimental group had significant improvement.

**SECTION -3(b): Determine effectiveness of planned teaching program on mother's practice regarding dietary pattern of children with tuberculosis**

**Table 7: Comparison of mean, standard deviation and 't' value scores of mothers regarding practice of post test in experimental group and control group**

Practice	N	Mean	SD	Mean difference	df	Independent t- value	Tabulated value
Experimental Group(n <sub>1</sub> )	30	19.13	1.99	5.07	58	3.28	2.01
Control Group (n <sub>2</sub> )	30	14.06	2.85			P <0.05	

Table 7 depicts that:

Hypothesis testing

H<sub>0</sub>: There is no significant difference between post-test practice score of the care givers in experimental and control group

H<sub>1</sub>: There is a significant difference between post-test mean of the care givers in experimental and control group.

P value was <0.05 and table value for two tailed test was 2.01. The calculated t- value (3.28) compared with the table value (2.01) which lies beyond table value, so the null hypothesis was rejected and accepted the alternative hypothesis that indicated that there was a significant change in the practice level of experimental and control group. So, this was evident that the planned teaching program on diet therapy was effective. This clearly showed that the implementation of planned teaching program on post test level of practice among mothers of children with tuberculosis in the experimental group had significant improvement.

**SECTION -4 (a): Association of post-test level of knowledge score with `socio demographic variables**

**Table 8: Association between the post-test knowledge score of mothers regarding dietary pattern in experimental group and their selected demographic variables**

Variables	Category	Sample	Respondents Knowledge			P value <0.05	χ <sup>2</sup> value
			Poor	Average	Good		
<b>Age in years</b>	<20 years	1	0	1	0	7.81 df=3	4.04 NS
	20 - 30 years	13	1	10	2		
	30-40 years	13	5	7	1		
	>41 years	3	2	1	0		

<b>Education</b>	Profession	0		0	0	11.07 df=6	3.46 NS
	Graduate or post graduate	6	0	4	2		
	Intermediate	9	0	8	1		
	High school	4	1	3	0		
	Middle school	7	4	3	0		
	Primary school	3	2	1	0		
	Illiterate	1	1	0	0		
<b>Occupation</b>	Profession	2	0	2	0	11.07 df=6	10.40 NS
	Semi-profession	4	0	3	1		
	Clerical, shop owner	9	1	7	1		
	Skilled worker	6	1	4	1		
	Semi-skilled	4	1	3	0		
	Unskilled	4	4	0	0		
	Unemployed	1	1	0	0		
<b>Family income</b>	>41430	1		0	1	11.07 df = 6	5.47 NS
	20715-41429	9	1	6	2		
	15536-20714	3	1	2	0		
	10357-15535	8	2	6	0		
	6214-10356	4	3	1	0		
	2092-6213	5	1	4	0		
	<2091	0	0	0	0		
<b>Religion</b>	Hindu	27	6	18	3	3.84 df =3	2.13 NS
	Muslim	3	2	1	0		
	Christian	0	0	0	0		
	Others	0	0	0	0		
<b>Area of residence</b>	Urban	12	1	8	3	3.84 df =1	0.45 NS
	Rural	18	7	11	0		
<b>Type of family</b>	Joint	15	6	8	1	3.84 df =1	2.73 NS
	Nuclear	15	2	11	2		
<b>Duration of illness</b>	<4 weeks	20	4	15	1	5.99 df =2	2.67 NS
	4-8 weeks	9	2	4	2		
	>8 weeks	1	2	0	0		
<b>History of illness</b>	Present	16	6	10	0	3.84 df =1	2.06 NS
	Absent	14	2	9	3		
<b>Previous exposure</b>	Yes	8	1	5	2	3.84 df =1	0.65 NS
	No	22	7	14	1		
<b>Number of rooms</b>	1	14	2	10	2	5.99 df =2	1.75 NS
	2	12	4	7	1		
	3 or more	4	2	2	0		
<b>Number of windows</b>	None	8	4	4	0	5.99 df =2	0.05 NS
	1	14	2	10	2		
	2	8	2	5	1		
<b>Number of children</b>	1	1	0	0	1	7.81 df =3	7.47 NS
	2	14	4	9	1		
	3	11	2	8	1		
	4 or more	4	2	2	0		

\*NS - Nothing Significant \*\*S - Significant

Table 8 depicts that: Hypothesis testing

H<sub>0</sub>: there is no association between the post -test knowledge practice score and the demographic Variables of mothers

H<sub>1</sub>: there will a significant association between the post-test knowledge and practice score and the demographic variables of care givers,

The P value was <0.05. This hypothesis was used for each of the variables. Chi square values were calculated in order to find out association. The calculated value compared with the table value for each of the variables.

Age( $\chi^2_{cal}=4.04$ ), education( $\chi^2_{cal}=3.46$ ), occupation( $\chi^2_{cal}=10.40$ ), family income( $\chi^2_{cal}=5.47$ ), religion( $\chi^2_{cal}=2.13$ ), area of residence( $\chi^2_{cal}=5.47$ ), type of family( $\chi^2_{cal}=2.73$ ), duration of illness ( $\chi^2_{cal}=2.67$ ), history of illness ( $\chi^2_{cal}=2.06$ ), previous exposure ( $\chi^2_{cal}=0.65$ ), no. of rooms ( $\chi^2_{cal}=1.75$ ), no of windows ( $\chi^2_{cal}=0.05$ ), no. of children( $\chi^2_{cal}=7.47$ ). At the appropriate degrees of freedom, none of the variables has significant association. All the values are less than the critical value; researcher accepted the null hypothesis and rejected the research hypothesis. There was no statistical significance association with other demographic variables among mothers with knowledge in experimental group.

#### SECTION -4 (b): Association of post-test level of knowledge score with socio demographic variables

**Table 9: Association between the post-test practice score of mothers regarding dietary pattern in experimental group and their selected demographic variables**

N= 60

Variables	Category	Sample	Respondents practice			P value <0.05	$\chi^2$ value
			Poor	Average	Good		
Age in years	<20 years	1	0	1	0	7.81 df=3	4.04 NS
	20 – 30 years	13	0	5	8		
	30-40 years	13	0	6	7		
	>41 years	3	0	2	1		
Education	Profession	0	0	0	0	11.07 df=6	3.46 NS
	Graduate or post graduate	6	0	3	3		
	Intermediate	9	0	3	6		
	High school	4	0	2	2		
	Middle school	7	0	3	4		
	Primary school	3	0	2	1		
	Illiterate	1	0	1	0		
Occupation	Profession	2	0	1	1	11.07 df=6	10.40 NS
	Semi-profession	4	0	2	2		
	Clerical, shop owner	9	0	3	6		
	Skilled worker	6	0	2	4		
	Semi-skilled	4	0	2	2		
	Unskilled	4	0	3	1		
	Unemployed	1	0	1	0		
Family income	>41430	1	0	0	1	11.07 df = 6	5.47 NS
	20715-41429	9	0	3	6		
	15536-20714	3	0	2	1		
	10357-15535	8	0	3	5		
	6214-10356	4	0	2	2		
	2092-6213	5	0	4	1		
	<2091	0	0	0	0		
Religion	Hindu	27	0	12	15	3.84 df =3	2.13 NS
	Muslim	3	0	2	1		
	Christian	0	0	0	0		
	Others	0	0	0	0		
Area of residence	Urban	12	0	8	4	3.84 df =1	0.45 NS
	Rural	18	0	6	12		
Type of family	Joint	15	0	10	5	3.84 df =1	2.73 NS
	Nuclear	15	0	4	11		
Duration of illness	<4 weeks	20	0	8	12	5.99 df =2	2.67 NS
	4-8 weeks	9	0	6	3		
	>8 weeks	1	0	0	1		
History of	Present	16	0	7	9	3.84	2.06
Illness	Absent	14	0	7	7	df =1	NS
Previous exposure	Yes	8	0	5	3	3.84 df =1	0.65 NS
	No	22	0	9	13		
Number of rooms	1	14	0	9	5	5.99 df =2	1.75 NS
	2	12	0	4	8		
	3 or more	4	0	1	3		
Number of windows	None	8	0	6	2	5.99 df =2	0.05 NS
	1	14	0	2	12		
	2	8	0	6	2		
Number of children	1	1	0	0	1	7.81 df =3	7.47 NS
	2	14	0	7	7		
	3	11	0	3	8		
	4 or more	4	0	4	0		

**Discussion**

The findings revealed that in post test experimental group mothers have 63.3% average knowledge, 26.6% poor knowledge and 10% good knowledge while in the control group, 53.3% poor knowledge, 46.6% average knowledge and none have good knowledge. In experimental group mean score was 17.9 1.96 while in control group mean score was

11.8 2.99. At the “p” value <0.05, the calculated t-value (3.21) was compared with the tabulated value (2.01). In post test experimental group, mothers have 53.3% good practice, 46.6% average practice and none have poor practice while in the control group, 63.33% average practice, 23.3% poor practice and 13.3% good practice. In experimental group mean score was 19.13 1.99 while in the control group, mean

score was 14.06 2.85. At the "p" value <0.05, the calculated t value (3.28) was compared with the tabulated value (2.01). These findings reveal that the planned teaching program on dietary pattern was effective.

### Conclusion

The study aimed at testing the effectiveness of planned teaching program on knowledge and expressed practice regarding dietary pattern among mothers of children with tuberculosis. The result showed that the planned teaching program was highly effective. The implications of this study emphasize on inclusion of teaching programs on prevention of malnutrition in clients with tuberculosis in the hospital continuing education programs, so that the malnutrition can be prevented and early recovery can be possible.

### Limitations of the study:

- The time period for data collection was limited.
- The study conducted in one setting but findings may vary in different settings.
- Generalization of the result is difficult due to small sample size.

### Future Recommendations

Based on the findings of the study, the following recommendations are offered for future research.

- The study can be replicated on a larger sample and also other hospital to validate and generalize the findings, can be conducted to assess the psychosocial problems
- A comparative study can be conducted to assess the knowledge and practice of diet therapy among children with tuberculosis in rural and urban areas.
- Training program for nurses to be well prepared to provide instructions and training for tuberculosis patient.

### References

- [1] Park K. Essential of Community Health Nursing. 4<sup>th</sup> ed. Jabalpur: Banarsidas Bhanot Publishers; 2004.
- [2] Prabhakara G N. Text book of Community Health for Nurses. 1<sup>st</sup> ed. New Delhi: Peepee publishers and distributors (P) LTD; 2004.
- [3] Tortore G J, Grabowski S R. Principles of anatomy and physiology. 10<sup>th</sup> ed. United States of America: John Wiley sons and publications; 2003.
- [4] Choudary K. Prevalence of pulmonary tuberculosis in periurban community of Bangalore under various methods of population screening. Indian Journal of Tuberculosis 2010; 41(7):17-27. Available from <https://www.researchgate.net>
- [5] Susan F W, Thompson J M. Respiratory Disorders. 1<sup>st</sup> ed. Missouri: Mosby publications; 1990.
- [6] Thippanna. A critical review of interventions to improve compliance with prescribed medication. Indian Journal of Tuberculosis 2008; 18 (5):155-166. Available from <https://www.sciencedirect.com>
- [7] Black, Hawks, Keene. Medical Surgical Nursing. 6<sup>th</sup> Ed. New Delhi: Harcourt publications (P) LTD; 2002.
- [8] Park K. Park's Text book of preventive and social medicine. 19<sup>th</sup> ed. Jabalpur: Banarsidas Bhanot publishers; 2007.
- [9] Prabhakara G N. Text book of Preventive and social medicine. 1<sup>st</sup> Ed. New Delhi: Jaypee brothers and distributors (P) LTD; 2002.
- [10] Singh MM. Tuberculosis a global challenge: Indian Journal of Tuberculosis. 2000; 47; 127-129. Available from <https://www.thelancet.com>
- [11] Diwaker, Gopi. Awareness of Tuberculosis among general population. Indian Journal on Tuberculosis. 2011; 3(4): 134-36. Available from [www.ncbi.nlm.nih.gov](http://www.ncbi.nlm.nih.gov)
- [12] Payghan B, Kadam S & Kotresh M. A study to determine the prevalence of pulmonary TB among severely acute malnourished children at nutritional rehabilitation centre. International Journal of Scientific and Research Publications. 2013; 3(7):1-15. Available from [www.ijsrp.org](http://www.ijsrp.org)
- [13] Bandichhode ST, Nandimath VA & Naik AV. Protein energy malnutrition & DOTS treatment outcome. International Journal of Health Sciences & Research. 2015; 5(2): 12-17. Available from [www.ijsrp.org](http://www.ijsrp.org)
- [14] Sukumani J, Lebesse R, Khoza L & Risenga P. A study to explore and describe experiences of family members caring for TB patients at home. Journal of the democratic nursing organization of South Africa. 2012; 35(1):111-17. Available from [www.ncbi.nlm.nih.gov](http://www.ncbi.nlm.nih.gov)
- [15] Munthali et al. A study on Tuberculosis caseload in children with severe acute malnutrition related with high hospital based mortality. BMC Res Notes. 2017; 24 (3): 122-29. Available from <https://www.theunion.org>
- [16] Polit F. and Beck. Nursing research: Review of literature. 7<sup>th</sup> edition Philadelphia: Lippincott William & Willikins. 2004. Page 196-98.