



# A Study To Assess The Effectiveness Of Planned Teaching Programme On Level Of The Knowledge Regarding Dots Therapy Among The Asha Workers At Bhopal District.

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**Abstract:** Tuberculosis is specific infectious disease caused by Mycobacterium tuberculosis. The disease primarily affects the lungs and causes pulmonary tuberculosis. It can also affect other body parts such as intestine, meninges, bones and joints, lymph gland, skin and other body parts. DOTS remain central to public health approach to tuberculosis control, which is now presented as Stop Tuberculosis strategy to ensure cure by providing the most effective medicine and confirming that it is taken. It is only strategy, which has been documented to be effective worldwide on a programme basis. ASHA workers are designated as DOTS providers, they go house to provide the DOTS medicines to the community peoples.

**OBJECTIVES:** The study aims to assess the effectiveness of Planned teaching Programme on level of the knowledge regarding DOTS therapy among ASHA workers.

**STUDY DESIGN AND METHODOLOGY:** For this study a Pre –experimental design was selected with non probability purposive sampling technique.

Data was collected from 200 ASHA workers of Primary Health Centre, Misrod Bhopal, Madhya Pradesh .Tool consists of part –I sociodemographic Variables and Part –II consists of knowledge questionnaire collected data was analyzed by descriptive and inferential statistics.

The difference between the Pre-test and Post -test mean knowledge score of ASHA workers regarding DOTS therapy was statistically significant. **CONCLUSION:** It concluded that Planned Teaching Programme (PTP) was effective in enhancing the knowledge of ASHA workers regarding DOTS therapy.

**Index Terms** - tuberculosis, mycobacterium tuberculosis, pulmonary tuberculosis, dots, public health, ASHA workers, planned teaching programme, knowledge assessment, primary health center, Bhopal, Madhya Pradesh, pre-experimental design, non-probability sampling, knowledge questionnaire,

## I. INTRODUCTION

Tuberculosis is a infectious disease caused by M. Tuberculosis and affects every part of the body. It was observed that tuberculosis killed nearly everyone it infected. Tubercle bacillus spreads through droplet infection when people who have active TB infection cough or sneezes. Most infectious are asymptomatic and latent, but about one in ten latent infectious eventually progresses to active disease which, if left untreated, kill more than 50% of those so infected. In 2007, RNTCP has consistently achieved treatment rate of more than 85% and case detection close to the global target of 70% case detection while maintaining the treatment success rate of more than 85% and case detection close to the global target of 70% case detection while maintaining the treatment success rate of more than 85%. Directly observed short therapy course (DOTS) strategy cover the entire spectrum of activities, including advocating for political commitment, case detection, administering and monitoring drug regimens, ensuring a regular supply of medicines, and standardizing, recording and reporting systems. Failure in any of these activities is likely to contribute to treatment failure and the development of drug resistance. The ASHA workers may be first to suspect Tuberculosis in patients, as they are the health workers from the grass root level. ASHA workers will be responsible for teaching the patient about the disease and its treatment.

**REVIEW OF LITERATURE:-** The revised National Tuberculosis (TB) Control Program is an initiative undertaken by the government of India and was active from 1997 to 2020. Later it was renamed as National TB Elimination Program, which eyes the complete eradication of TB by 2025. The revised National Tuberculosis Control Programme (RNTCP) is preceded by the National TB Control Program which was activated when the cases of TB were on the rise in the early 1960s and police intervention was needed. National Tobacco Control Cell (NTCP) guided the efforts until 1997 when various shortcomings, which were registered over the course of time, were addressed and the revised program was launched. It has been a mixed success as beneficiaries belonging to the reachable, urban areas were benefitted, and tribal, and backward areas were lagging behind. Although the RNTCP proved to be effective in containing TB and curing it to a certain extent, the successor of the program, which is NTEP, has set an ambitious goal of eradicating TB by 2025 which needs concerted efforts on behalf of all stakeholders.

**Malwe S, Bawiskar D, Wagh V. Tuberculosis and the Effectiveness of the Revised National Tuberculosis Control Program (RNTCP) to Control Tuberculosis: A Narrative Review. Cureus. 2023 Dec 31;15(12):e51418. Doi: 10.7759/cureus.51418. PMID: 38299135; PMCID:**

**PMC10828526.** We used the RNTCP data collected by the Central TB Division, Government of India. RNTCP has a systematic monitoring mechanism which tracks the outcome of every patient put on treatment. There is a standardized recording and reporting structure in place; indicators are monitored regularly at every level of the health system; and regular supervision ensures quality of the Programme. The main indicators include the number of cases diagnosed and the percentage of patients who are successfully treated. These indicators were used to assess the RNTCP performance in tribal areas. We observed a poor performance in terms of case detection rate (CDR) in tribal and backward districts as compared with other districts in India. Among tribal districts 53 per cent in 2010, 45 per cent in 2011 and 56 per cent in 2012 had CDR of new smear positive <70%. It was also observed that 26 per cent of tribal

dominated districts had CDR of <51 per cent in 2012. More than 50 per cent of tribal districts were not able to achieve more than 85 per cent of cure rate. The findings of this study suggested that the overall RNTCP performance in tribal areas was not optimal, and the target of >85 per cent of core rate was achieved by less than half of the tribal districts. **Muniyandi M, Rao VG, Bhat J, Yadav R. Performance of Revised National Tuberculosis Control Programme (RNTCP) in tribal areas in India. Indian J Med Res. 2015 May;141(5):624-9. doi: 10.4103/0971-5916.159553. PMID: 26139780; PMCID: PMC4510761.**

To study the biosocial correlates and treatment outcome of registered cases and to evaluate the Revised National Tuberculosis Control Programme (RNTCP) in Tuberculosis Unit of a tertiary care hospital in Kanpur. Materials and Methods: A treatment record analysis of TB cases registered at the Tuberculosis Unit of Dr. Murari Lal Chest Hospital, Kanpur during the period of January to December, 2016 was done. Data was recorded in a pre-designed and pre-tested questionnaire and analyzed using standard statistical tools (percentages, chi square test). Results: The study revealed that maximum number (72.35%) of TB cases were in the 20-60 years age group and were mostly males (61.58%). Most (74.44%) of the cases were from urban areas. The T.U had an annualized case detection rate of 51 cases per 100,000 population, smear conversion rate of 85% and treatment success rate of 63.45%. 29.60% of registered cases were transferred out. Conclusion: Most of the registered TB cases were in the economically productive age group and were males. The sputum positivity rate was at par with RNTCP norm. The cure rate of T.U was far behind the country's status report.

**RESEARCH METHODOLOGY :-** RESEARCH APPROACH: In this study Evaluative research approach is used. RESEARCH DESIGN: The research design for the present study was pre experimental one group pre-test -post-test design .Variables under study Independent variable: Planned Teaching Programme Dependent variable: Knowledge score of ASHA workers. Setting of the study: Selected P.H.C at Bhopal district include Misrod. Population: ASHA working in P.H.C of Bhopal. Sample and sampling technique Sample: 200 ASHA worker. Non-probability purposive sampling technique was used to select the ASHA workers. Criteria for sample selection Inclusive criteria 1. ASHA workers of selected Primary Health Centers of Bhopal District. 2. Asha workers who can read and write Hindi. Exclusive criteria 1. ASHA workers who are not willing to participate in the study. 2. ASHA workers who are not available at the time of data collection.

**3.3 Theoretical framework-** The research design adopted for the present study is depicted in figure as shown below:

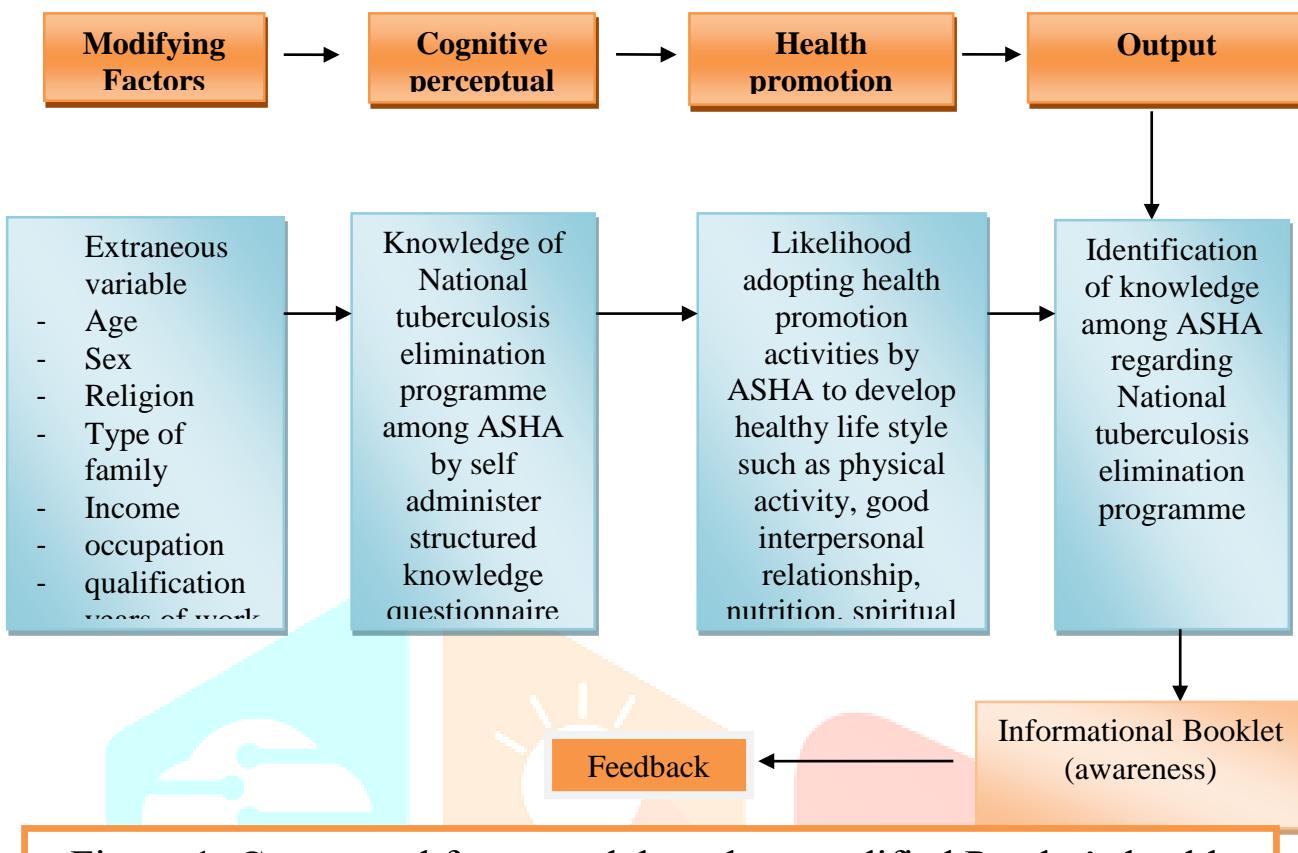


Figure 1: Conceptual framework based on modified Pender's health

#### 3.4 Statistical tools

The data obtained were analyzed in terms of objectives of the study by using descriptive and inferential statistics. The plan for data analysis as follows. Data were organized in master sheet. The frequencies and percentage was used for analysis of socio demographic variables like age, sex etc.. Knowledge was assessed by using mean, mean score percentage and standard deviation of pre-test and post-test scores. Paired t-test was used to determine the significant of difference between pre-test score and post-test score of the study. Chi-square analyze was used to determine to association between selected demographic variables with pretest knowledge scores.

**IV. RESULTS SECTION - A****4.1 -FREQUENCY AND PERCENTAGE DISTRIBUTION OF DEMOGRAPHIC VARIABLES**

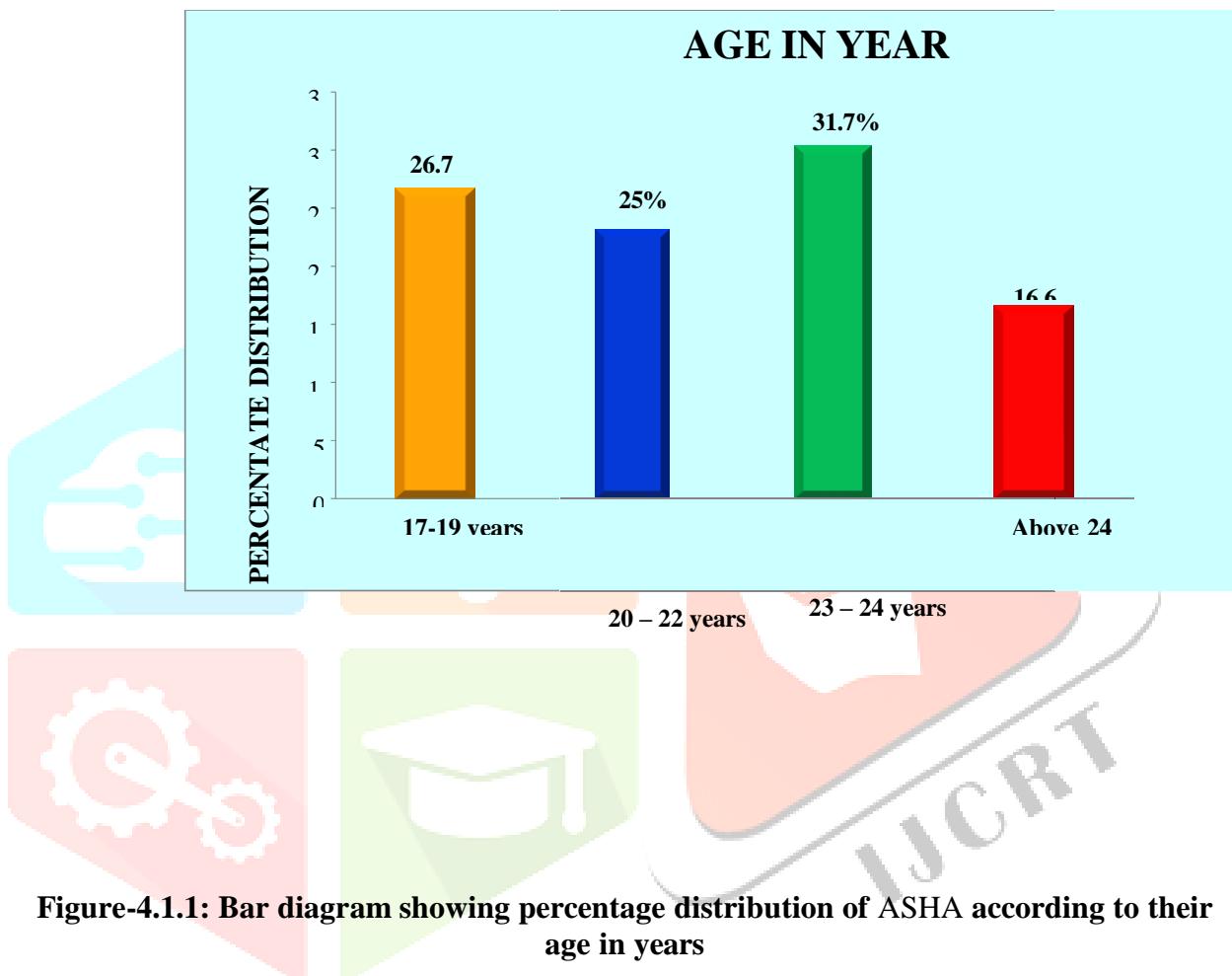
Table 4.0 Frequency and percentage distribution on their age in year, religion, education status, occupation, family income, type of family, & sources of knowledge.

<b>S No.</b>	<b>Demographic variables</b>	<b>Particular</b>	<b>Frequency (f)</b>	<b>Percentage (%)</b>
<b>1</b>	<b>Age in years</b>	17-19 years	16	26.7
		20-22 years	15	25
		23-24 years	19	31.7
		Above 24 year	10	16.6
<b>2</b>	<b>Religion</b>	Hindu	33	55
		Muslim	17	28.3
		Christian	7	11.7
		Other	3	5
<b>3</b>	<b>Education status</b>	Non - Formal Education	8	13.3
		Primary Education	17	28.3
		Secondary Education	15	25
		Graduate And Above	20	33.4
<b>4</b>	<b>Occupation</b>	Private job	14	23.3
		Government job	6	10
		Daily wages	5	8.3
		House wife	35	58.3
<b>5</b>	<b>Type of family</b>	Joint family	17	28.3
		Nuclear family	35	58.3
		Extended family	8	13.3
<b>6</b>	<b>Family Income</b>	Rs 5000 – 10,000	13	21.7

		Rs 1,0001 – 15,000	18	30
		Rs 15,001 – 20,000	13	21.7
		Above Rs 20,000	16	26.6
7	<b>Source of information</b>	Mass media	17	28.3
		Television	14	23.3
		News paper	10	16.7
		Social Media	19	31.7

The above table depicts the frequency and percentage distribution of the demographic information of the sample group subject who were taken to assess the effectiveness of video assisted teaching programme on knowledge regarding management & prevention of Cancer.

- Religious of the ASHA 33 (55 %) belonging to the Hindu family, whereas 17 (28.3 %) belonging to the Muslim family, whereas 7 (11.7 %) belonging to the Christian family and 3 (5 %) belonging to the other religious.
- Education status of ASHA 20 (33.4 %) has completed studied at the graduate and above, whereas 17 (28.3%) has completed studied at the primary education, whereas 15 (25 %) has completed studied at the secondary education, and only 8 (13.3 %) has non formal education.
- Occupation ASHA of 35 (58.3 %) were working as a house wife, whereas 14 (23.3 %) were working as a private job, whereas 6 (10 %) were working as a government job and 5 (8.3 %) were working as a daily wage.
- Types of family ASHA 35 (58.3%) belonging to the nuclear family, whereas 17 (28.3 %) belonging to the joint family, 10 (20 %) and 8 (13.3 %) belonging to the extended family.
- Family monthly income 18 (30 %) ASHA family income was between Rs 1,0001 – 15,000 whereas 16 (26.6 %) selected degree college students of Bhopal City family income was Above Rs 20,000, whereas 13 (21.7 %) selected degree college students of Bhopal City family was between Rs 5000 – 10,000 and Rs 15,001 – 20,000.
- ASHA 19 (31.7 %) got information through social media whereas, 17 (28.3 %) got information through mass media whereas 14 (23.3 %) got information through television and 10 (16.7 %) got information through news paper.



## RELIGION

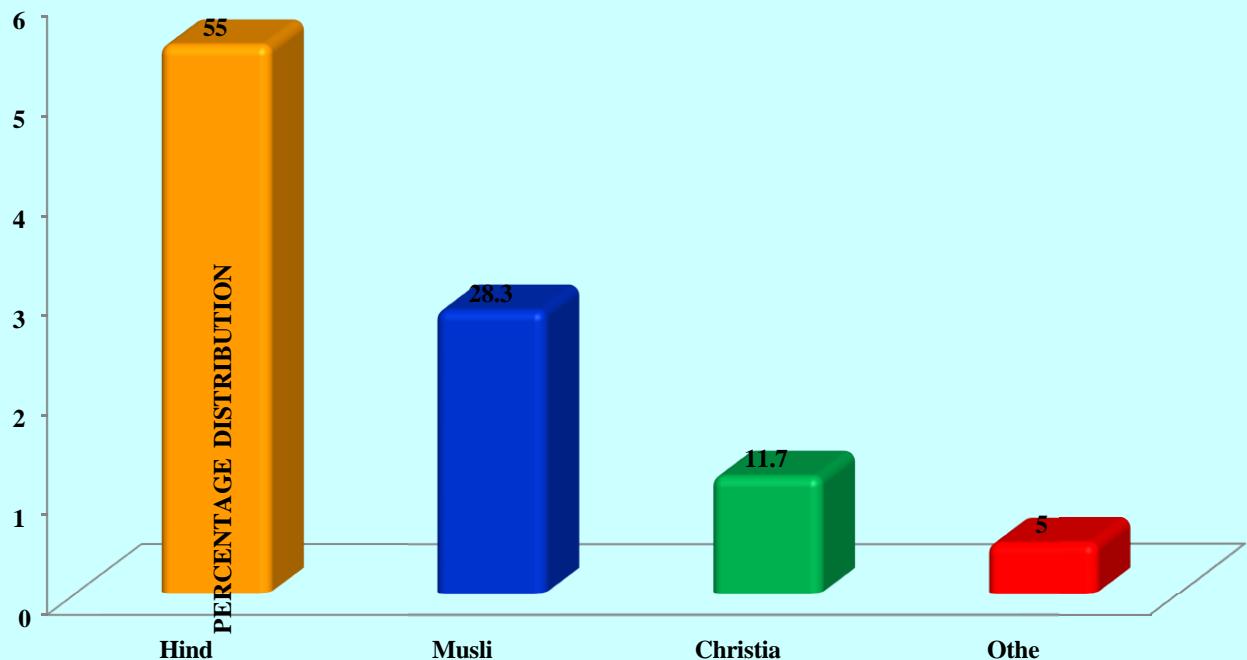
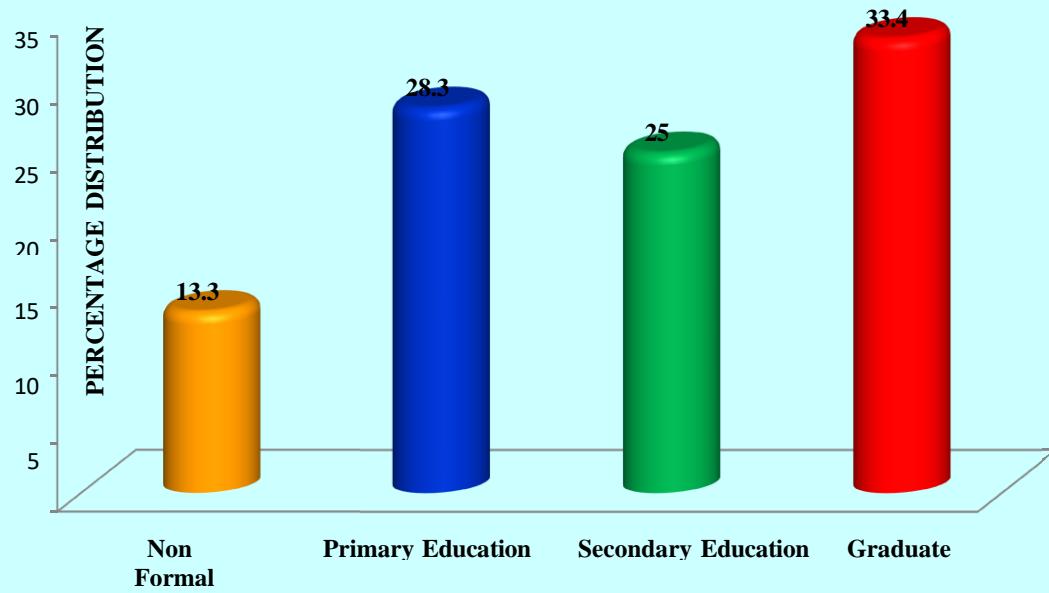
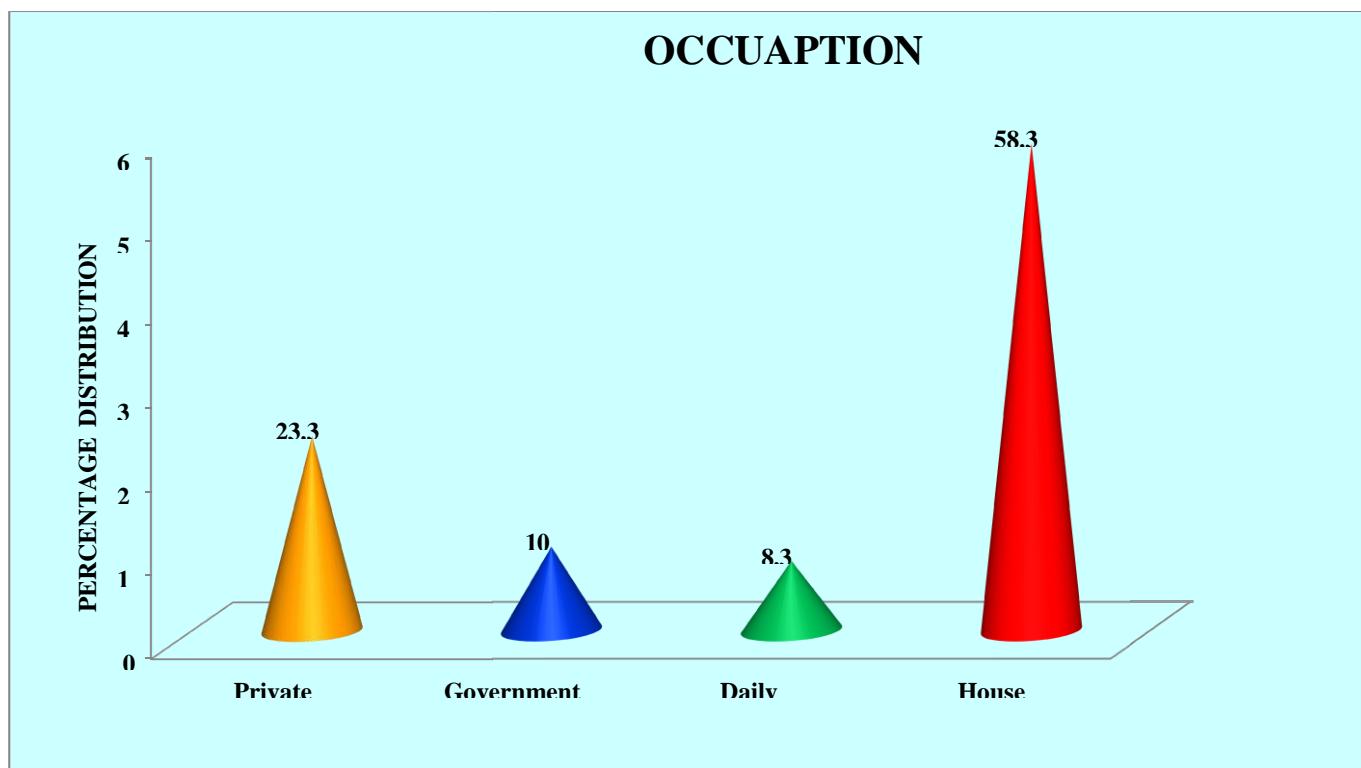


Figure-4.1.2: Column diagram showing percentage distribution of ASHA according to their religion.

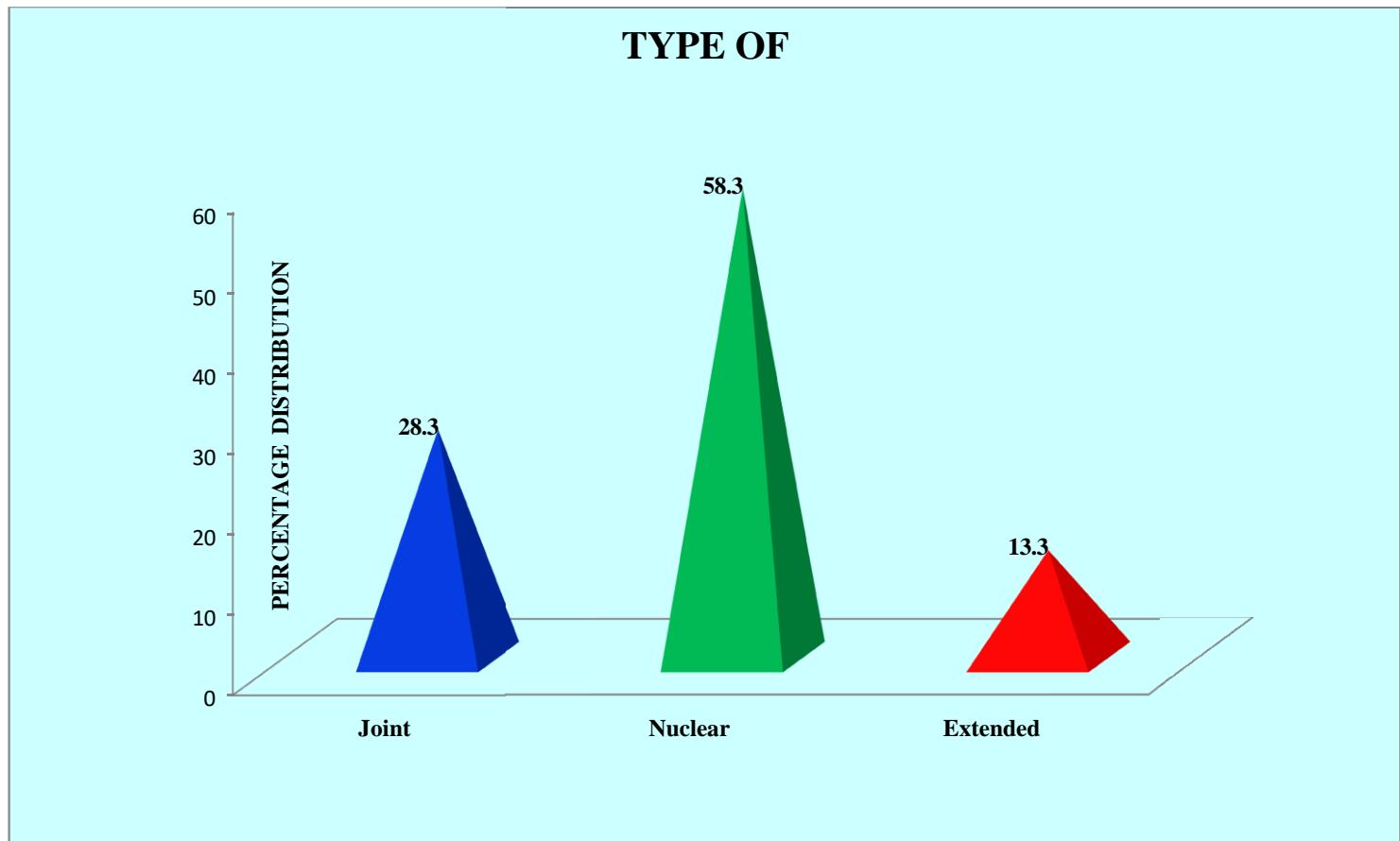
## EDUCATION



**Figure-4.1.3: Cylindrical diagram showing percentage distribution of ASHA according to their education status.**



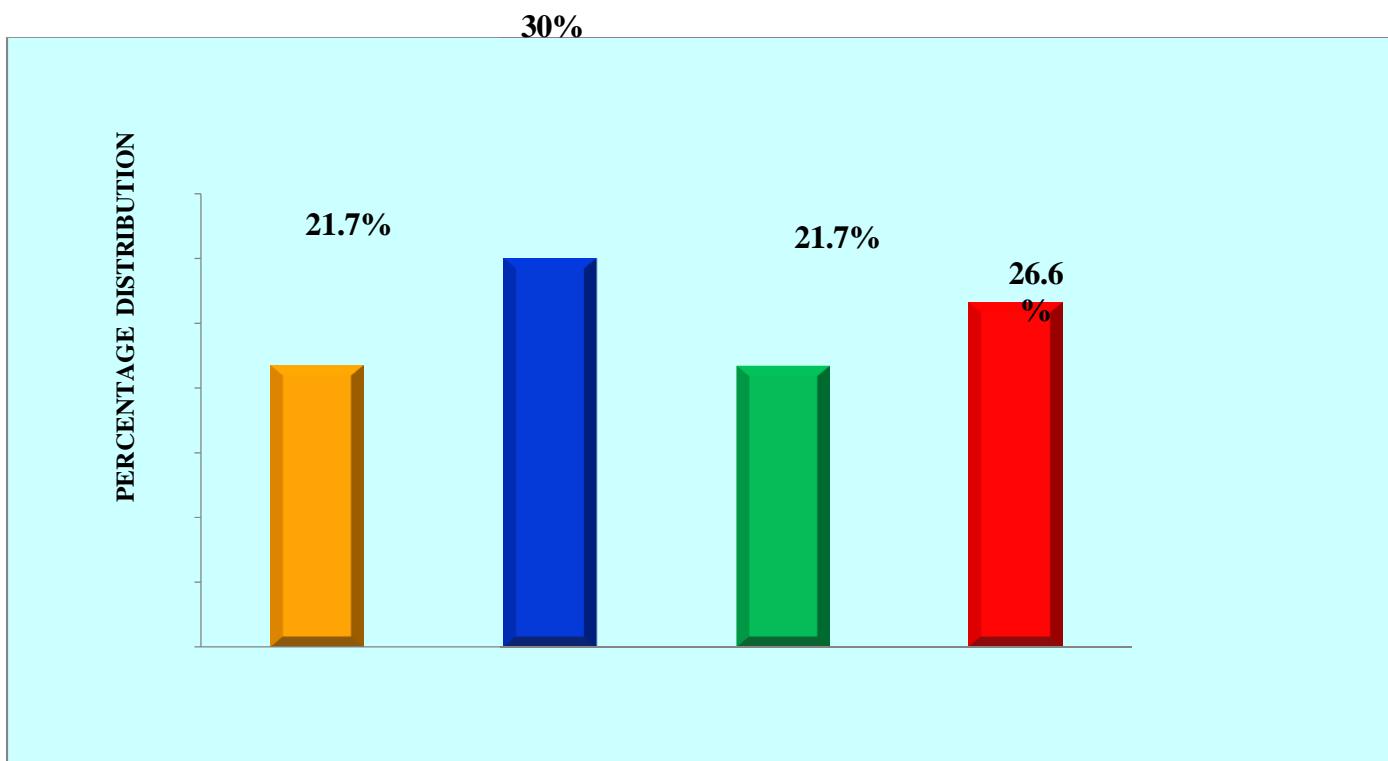
**Figure-4.1.4:** Cone diagram showing percentage distribution of ASHA according to their occupation.

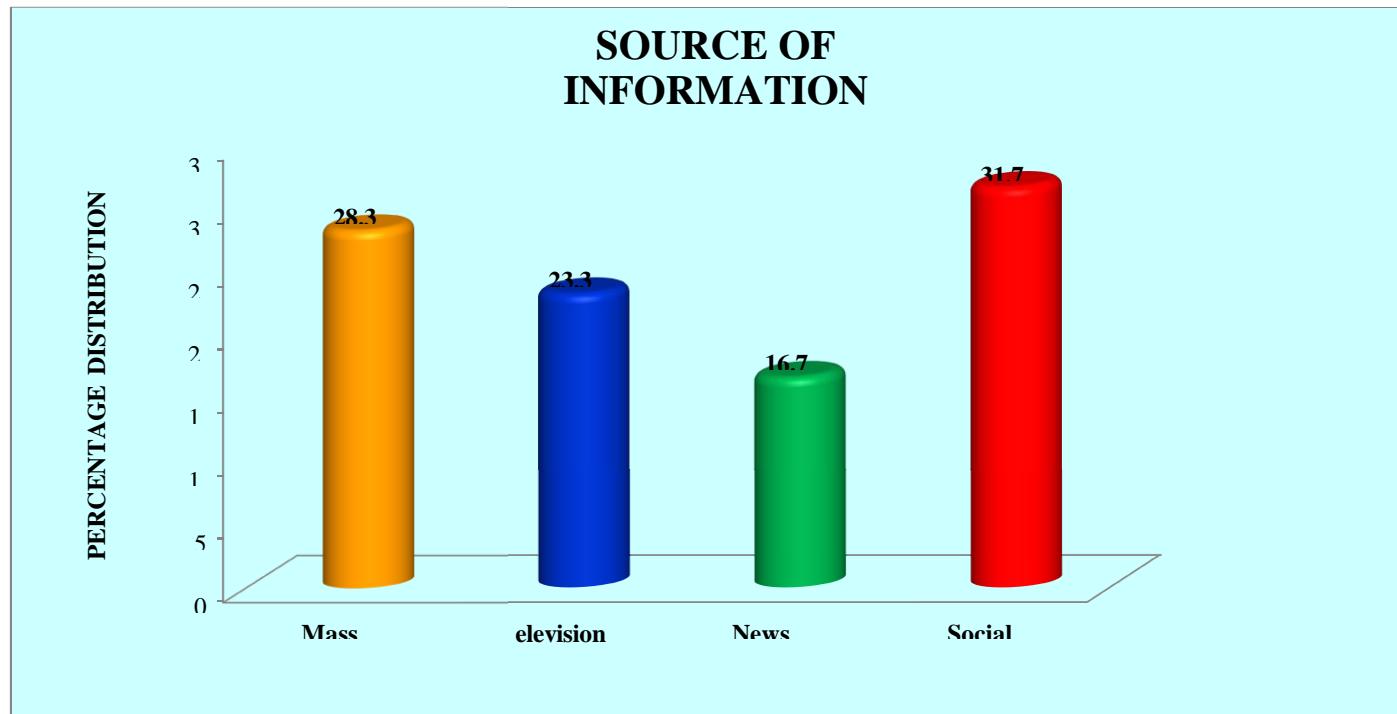


**Figure-4.1.5:** Pyramid diagram showing percentage distribution of ASHA according to their type of family.

## FAMILY INCOME

35





**Figure-4.1.7:** Cylindrical diagram showing information. percentage distribution of ASHA according to their source of

SECTION - B

1. 4.2.1 - ASSESS THE PRE TEST LEVEL OF KNOWLEDGE REGARDING National tuberculosis elimination programme among ASHA.

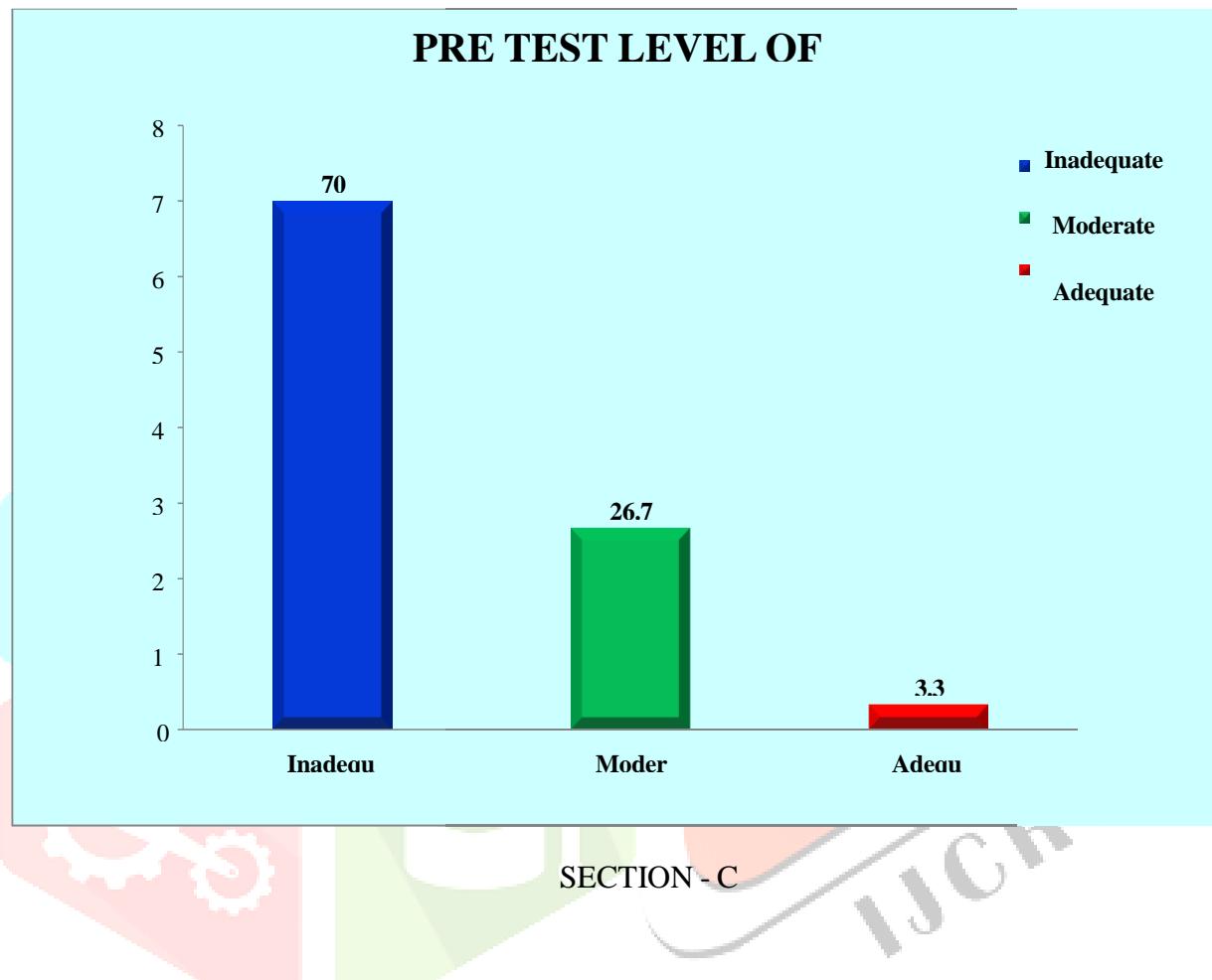
*Table-4.2.1: Frequency and percentage of the pre test level of knowledge n= 200*

S. No.	Level of Knowledge	Range for Score	Frequency	Percentage
1	Inadequate Knowledge	0 - 10	42	70
2	Moderate Knowledge	11 - 20	16	26.7
3	Adequate Knowledge	21 - 30	02	3.3

#### Interpretation:

1. The above table shows that pre test level of knowledge 42 (70 %) had inadequate knowledge whereas 16 (26.7 %) had moderate knowledge and 2 (3.3 %) had adequate knowledge regarding National tuberculosis elimination programme among ASHA.

Figure-4.2.1: Bar diagram showing percentage distribution of ASHA according to their pre test level of knowledge.



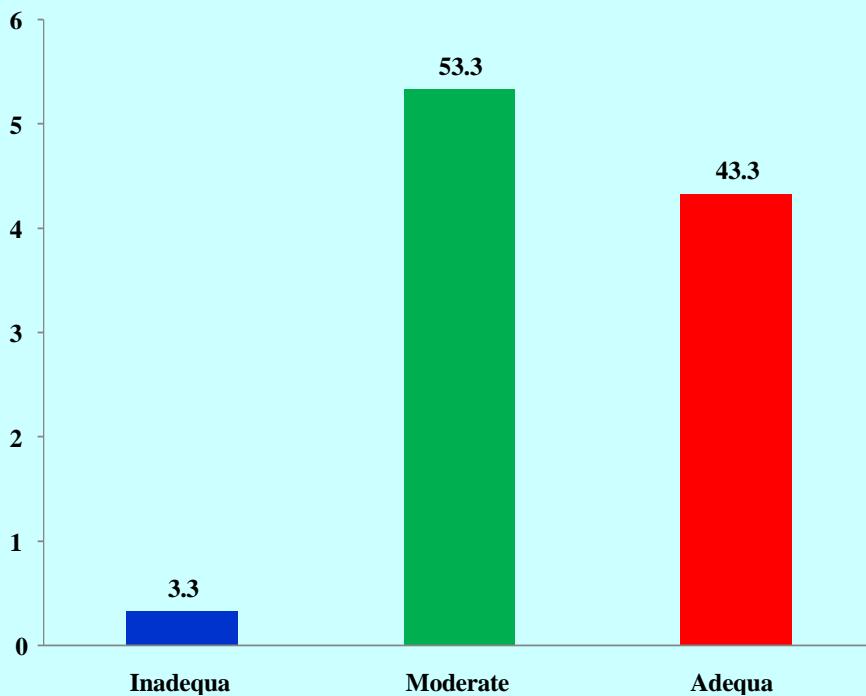
2. Table-4.3.1: Frequency and percentage of the post-test level of knowledge regarding National tuberculosis elimination programme among ASHA. n= 60

S. No.	Level of Knowledge	Range (for Score)	Frequency	Percentage
1	Inadequate Knowledge	0 -10	02	3.3
2	Moderate Knowledge	11 -20	32	53.3
3	Adequate Knowledge	21 -30	26	43.4

#### Interpretation:

3. The above table shows that post-test level of knowledge 2 (3.3 %) had adequate knowledge whereas 32 (53.3%) had moderate knowledge and 26 (43.4 %) had

## POST TEST LEVEL OF



- Figure-4.3.1: Bar diagram showing percentage distribution of National tuberculosis elimination programme among ASHA.

## SECTION - D

- 4.4.1 - Comparison between pre and post – test level of knowledge regarding National tuberculosis elimination programme among ASHA.

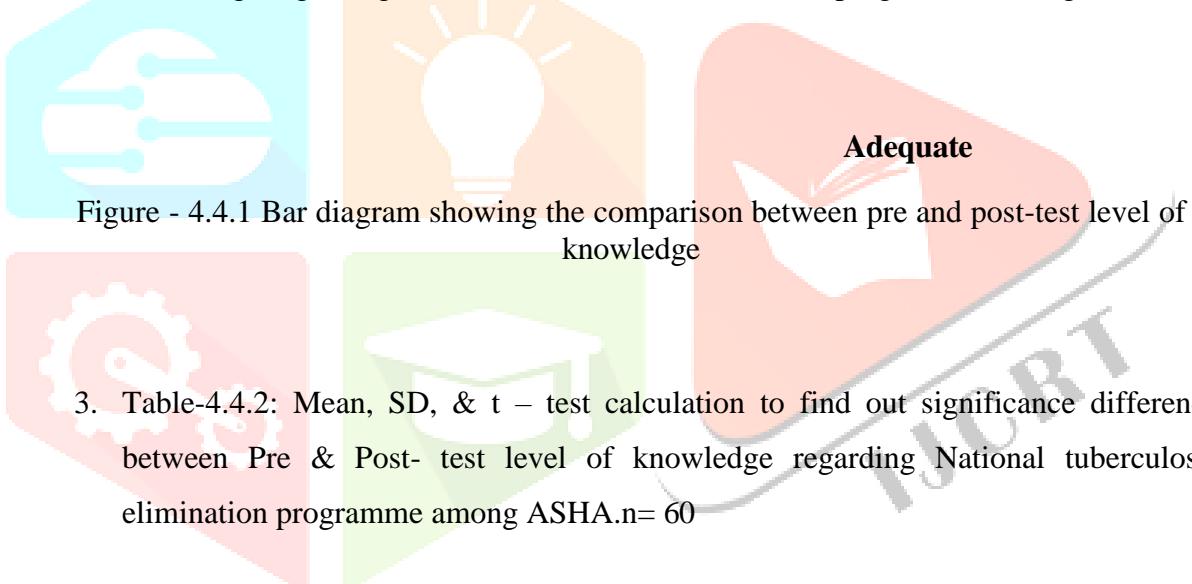
Table 4.4.1 – Comparison of pre and post-test level of knowledge n=60

level of knowledge	Grade	Range	Frequency	Percentage	Mean	SD
Pre test	Inadequate Knowledge	0-10	42	70	9.9	4.15
	Moderate Knowledge	11-20	16	26.7		

	Adequate Knowledge	21-30	02	3.3		
<b>Post-test</b>	Inadequate Knowledge	0 -10	02	3.3	18.8	4.92
	Moderate Knowledge	11 -20	32	53.3		
	Adequate Knowledge	21 -30	26	43.4		

### Interpretation:

2. The above table shows that pre test level of knowledge 42 (70 %) had inadequate knowledge whereas 16 (26.7 %) had moderate knowledge and 2 (3.3 %) had adequate knowledge and post-test level of knowledge 2 (3.3 %) had adequate knowledge whereas 32 (53.3%) had moderate knowledge and 26 (43.4 %) had inadequate knowledge regarding National tuberculosis elimination programme among ASHA.



3. Table-4.4.2: Mean, SD, & t – test calculation to find out significance difference between Pre & Post- test level of knowledge regarding National tuberculosis elimination programme among ASHA.n= 60

level of knowledge	Mean	Mean difference	Mean Percentage (%)	Standard deviation (SD)	df	't' value
Pre-test	9.9	8.9	34.5	4.15	59	10.85*
Post-test	18.8		65.5	4.92		

The 't' value (at 't'59 = 10.85 , P ≤ 0.05) & P Value ('t'59 = 2.00,, P ≤ 0.05)

### Interpretation:

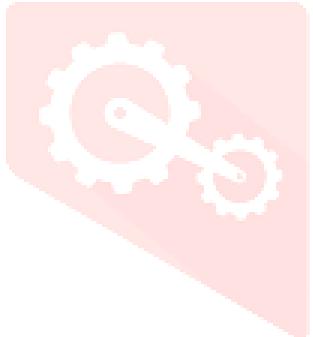
4. The above table shows that the mean post- test level of knowledge (18.8) is lower than the mean pre- test level of knowledge (9.9) and the standard deviation of pre - test level of knowledge ( $SD \pm 4.15$ ) is less than the standard deviation of post- test level of knowledge ( $SD \pm 4.92$ ), which reveals that effectiveness of Instructional booklet on National tuberculosis elimination programme among ASHA after distribution of booklet it is improved.

5. The mean difference between pre-test knowledge and post-test knowledge is 8.9. The computed paired ‘t’ value (at  $t'_{59} = 10.85$ ,  $P \leq 0.05$ ) is greater than the tabulated value ( $t'_{59} = 2.00$ ,  $P \leq 0.05$ ). The dispersion of pre -test scores ( $SD \pm 4.15$ ) is more than that of post-test scores ( $SD \pm 4.92$ ). So that the null hypothesis is rejected and research hypothesis is accepted which shows that there was a significant difference between pre- & post-test knowledge score. This indicates that selected video assisted teaching programme are effective to improve the knowledge regarding National tuberculosis elimination programme among ASHA.

The table revealed that the mean percentage of post-test level of knowledge (65.5 %) is apparently higher than the mean pre test level of knowledge (34.5%) improvement mean percentage (31 %) obtained for pre and post-test level of knowledge with ‘t’ value

10.85 of 59 at ( $P < 0.05$ ) level of significance. It reveals there is an enhancement of knowledge indicating the effectiveness of informational booklet.

6. Hence, the hypothesis **H<sub>1</sub> is accepted**, stating that the mean post- test knowledge is significantly higher than the mean pre- test knowledge at 0.05 level of significance regarding National tuberculosis elimination programme among ASHA.



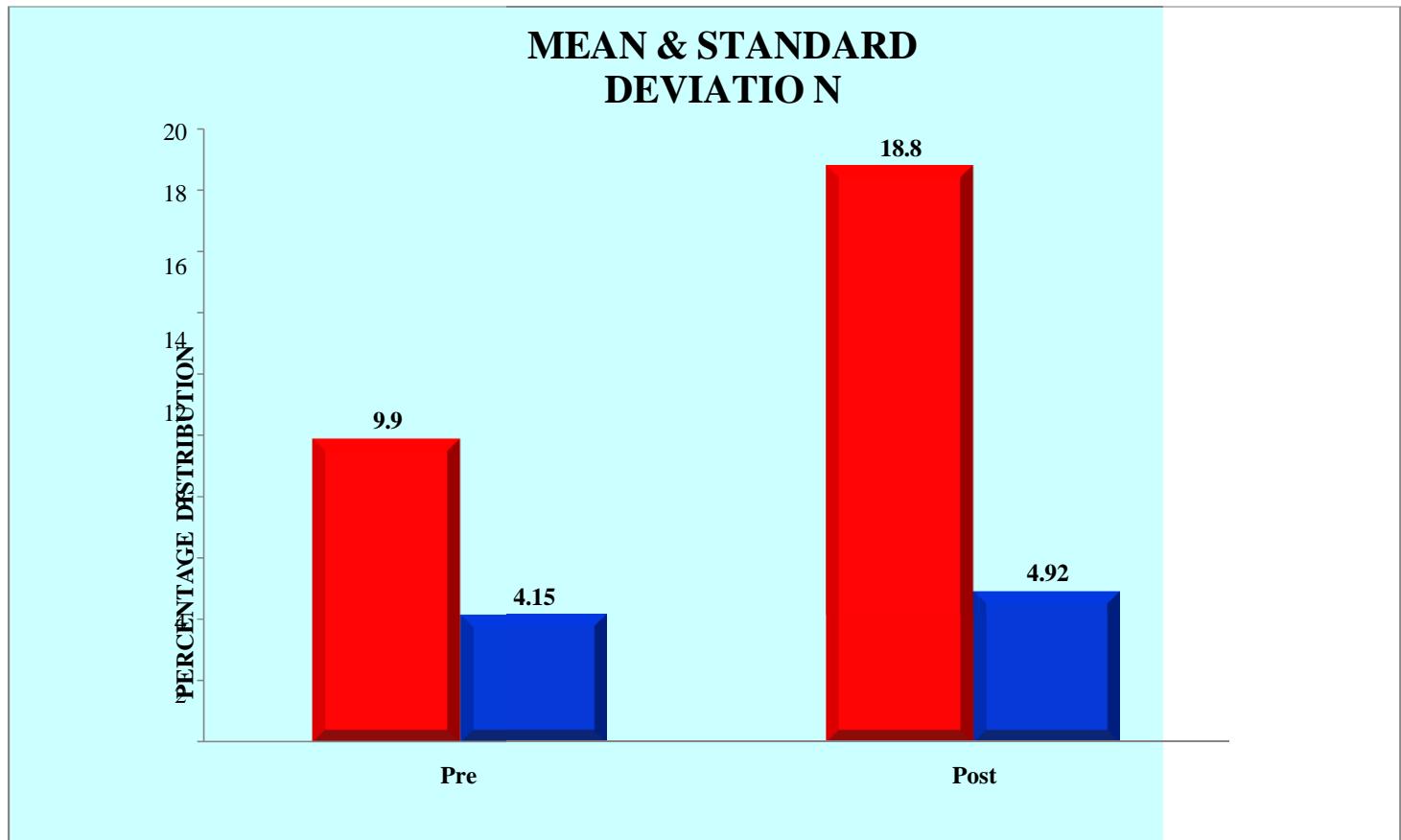
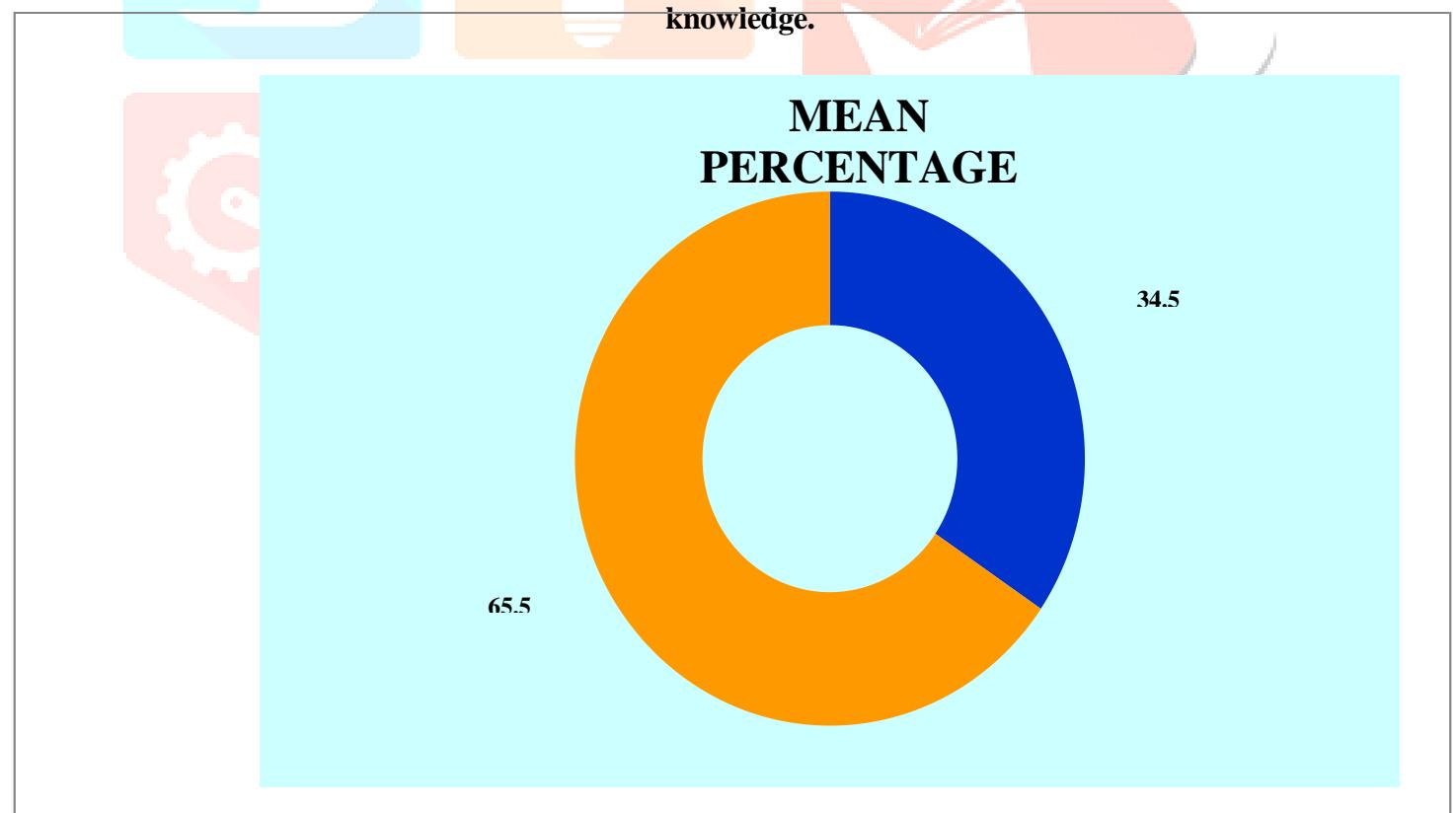


Figure -4.4.2 Bar diagram showing the mean and standard deviation of pre and post-test level of knowledge.



**1. Figure no. 4.4.3 - Doughnut diagram showing mean difference of pre and post-test level of knowledge regarding National tuberculosis elimination programme among ASHA.**

**SECTION – E**

**4. - ASSOCIATION BETWEEN THE MEAN POST-TEST KNOWLEDGE SCORE WITH SELECTED DEMOGRAPHIC VARIABLE REGARDING NATIONAL TUBERCULOSIS ELIMINATION PROGRAMME AMONG ASHA.**

**4.5.1**

Table-4.5.1: Chi square value showing association of post-test level of knowledge with their selected demographic variable n – 60

Demographic variable	level of knowledge			Chi square $\chi^2$	df	Tabulated P value	Inference
	inadequate	moderate	Adequate				
<b>AGE IN YEAR</b>							
17-19 years	0	6	10	8.29	6	12.59	NS
20-22 years	1	8	6				
23-24 years	1	14	4				
Above 24 year	0	4	6				
<b>RELIGION</b>							
Hindi	1	18	14	1.3	6	12.59	NS
Muslim	1	8	8				
Christian	0	4	3				
Other	0	2	1				
<b>EDUCATION STATUS</b>							
non formal education	0	6	2	14.77	6	12.59	S*
Primary education	1	12	4				
Secondary education	1	2	12				
Graduate and above	0	12	8				
<b>OCCUPATION</b>							
Private job	0	4	10				
Government job	0	2	4				

Daily wages	1	4	0	13.36	6	12.59	S*
House wife	1	22	12				
<b>TYPE OF FAMILY</b>							
Joint family	1	6	10	5.41	4	9.49	NS
Nuclear family	1	20	14				
Extended family	0	6	2				
<b>FAMILY INCOME</b>							
Rs 5000 – 10,000	1	8	4	13.01	6	12.59	S*
Rs 1,0001 – 15,000	0	10	8				
Rs 15,001 – 20,000	1	2	10				
Above Rs 20,000	0	12	4				
<b>SOURCE OF INFORMATION</b>							
Mass media	1	10	6	4.59	6	12.59	NS
Television	0	6	8				
News paper	0	4	6				
Social Media	1	12	6				

**Designation:** \* indicates significant at the level of 0.05.

#### Interpretation:

Represents the computed Chi-Square values of selected demographic characteristics that show association of post-test level of knowledge with their selected demographic variable.

- Shows the association of demographic variable **age in year** of selected degree college students of Bhopal City with post- test knowledge score. The calculated chi-square value obtained **8.29** which is lower than the tabulated value at 6 degree of freedom (d.f), p value  $<0.05$ , which is statistically non significant. Thus, it is interpreted that the demographic variable age in year is not associated with post-test knowledge score.
- Shows the association of demographic variable **religion** of selected degree college students of Bhopal City with post- test knowledge score. The calculated chi-square value obtained **1.3** which is lower than the tabulated value at 6 degree of freedom (d.f), p value  $<0.05$ , which is statistically non significant. Thus, it is interpreted that the demographic variable religion is not associated with post-test knowledge score.
- Shows the association of demographic variable **education status** of ASHA with post- test knowledge score. The calculated chi-square value obtained **14.77** which is higher than the tabulated value at 6 degree of freedom (d.f), p value  $<0.05$ , which is statistically significant. Thus, it is interpreted that the demographic variable education status is associated with post-test knowledge score.
- Shows the association of demographic variable **occupation of** selected degree college students of Bhopal City with post- test knowledge score. The calculated chi-square value obtained **13.36**

which is higher than the tabulated value at 6 degree of freedom (d.f), p value  $<0.05$ , which is statistically non significant. Thus, it is interpreted that the demographic variable occupation is associated with post-test knowledge score.

- Shows the association of demographic variable **type of family** ASHA with post- test knowledge score. The calculated chi-square value obtained **5.41** which is lower than the tabulated value at 6 degree of freedom (d.f), p value  $<0.05$ , which is statistically non significant. Thus, it is interpreted that the demographic variable type of family is associated with post-test knowledge score
- Shows the association of demographic variable **family income** ASHA with post- test knowledge score. The calculated chi-square value obtained **13.01** which is higher than the tabulated value at 6 degree of freedom (d.f), p value  $<0.05$ , which is statistically non significant. Thus, it is interpreted that the demographic variable family income is associated with post-test knowledge score
- Shows the association of demographic variable **source of information** selected degree college students of Bhopal City with post- test knowledge score. The calculated chi-square value obtained **4.59** which is higher than the tabulated value at 6 degree of freedom (d.f), p value  $<0.05$ , which is statistically non significant. Thus, it is interpreted that the demographic variable source of information is associated with post-test knowledge score.

The demographic variables of selected degree college students of Bhopal City; were found no association with the post-test level of knowledge at significance level at, age, in year, religion, type of family, source of information and **education status, occupation, family income** was found significant at level of  $< 0.05$ . That reveals selected demographic variables are the independent in relation to post-test level of knowledge that was dependent.

- Hence the research **hypothesis H<sub>2</sub>** is accepted, states that there is a significant association of post-test knowledge with selected demographic variables of National tuberculosis elimination programme among ASHA at level of significance 0.05. The data obtained were analyzed in terms of objectives of the study by using descriptive are inferential statistics. The plan for data analysis as follows Data were organized in master sheet. The frequencies and percentage was used for analysis of socio demographic variables like age, sex etc. Knowledge was assessed by using mean, mean score percentage and standard deviation of pre-test and post-test scores. Paired t-test was used to determine the significant of difference between pre-test score and post-test score of the study. Chi-square analyze was used to determine to association between selected demographic variables with pretest knowledge scores.

## DISCUSSION

## Major finding of the study :-

- Majority of the age in year of ASHA 19 (31.7%) of the age group 31- 24 years.
- Majority of the religious of ASHA 33 (55 %) belonging to the Hindu family.
- Majority of the education status of ASHA 20 (33.4 %) has completed studied at the graduate and above.
- Majority of occupation of ASHA 35 (58.3 %) were working as a house wife.
- Majority of the family monthly income of selected ASHA 18 (30 %) between income Rs 1,0001 – 15,000.
- Majority of the ASHA 19 (31.7 %) got information through social media

The findings of the study have been discussed with reference to the objectives, hypotheses and with findings of other studies. Findings related to characteristics of demographic variables-In the present study demographic characteristics of ASHA are discussed by age in year, religion, education status, occupation, type of family, family income and source of information.

- With the regard to majority of ASHA according to their age group, 19 (31.7%) of the degree college students between the age group 31- 24 years, were as 16 (26.7 %) of the age group 17- 19 years, 15 (25%) of the the age group 20-22 years and 10 (16.6%) of the ASHA the age group Above 24 year. In regard to religion of the ASHA 33 (55 %) belonging to the Hindu family, whereas 17 (28.3 %) belonging to the Muslim family, whereas 7 (11.7 %) belonging to the Christian family and 3 (5 %) belonging to the other religious.
- In the study, education status of ASHA 20 (33.4 %) has completed studied at the graduate and above, whereas 17 (28.3%) has completed studied at the primary education, whereas 15 (25 %) has completed studied at the secondary education, and only 8 (13.3 %) has non formal education.
- In relation to maximum types of family in ASHA 35 (58.3%) belonging to the nuclear family, whereas 17 (28.3 %) belonging to the joint family, 10 (20 %) and 8 (13.3 %) belonging to the extended family.
- In the study family monthly income 18 (30 %) ASHA family income was between Rs 1,0001 – 15,000 whereas 16 (26.6 %) selected degree college students of Bhopal City family income was Above Rs 20,000, whereas 13 (21.7 %) selected degree college students of Bhopal City family was between Rs 5000 – 10,000 and Rs 15,001 – 20,000. That showed most of the selected degree college students of Bhopal City family monthly income was between Rs 1,0001 – 15,000.

6. Mean post- test level of knowledge (18.8) is lower than the mean pre- test level of knowledge (9.9) and the standard deviation of pre - test level of knowledge ( $SD \pm 4.15$ ) is less than the standard deviation of post- test level of knowledge ( $SD \pm 4.92$ ), which reveals that effectiveness of informational booklet regarding National tuberculosis elimination programme among ASHA with the selected demographic variables is improved

7. The mean difference between pre- test level of knowledge and post- test level of knowledge is 8.9.

The computed 't' value 10.45 (2.00,  $P < 0.05$  df; 99) shows that there is a significant difference between pre- test level of knowledge and post- test level of knowledge. This indicates that informational booklet are effective to improve the knowledge regarding National tuberculosis elimination programme among ASHAs.

The table revealed that the mean percentage of post-test level of knowledge (65.5 %) is apparently higher than the mean pre test level of knowledge (34.5%) improvement mean percentage (31 %) obtained for pre and post-test level of knowledge with 't' value 10.85 of 59 at ( $P < 0.05$ ) level of significance. It reveals there is an enhancement of knowledge indicating the effectiveness of informational booklet are effective. Hence, the hypothesis **H<sub>1</sub> is accepted**, stating that the mean post- test knowledge is significantly higher than the mean pre- test knowledge at 0.05 level of significance.

The demographic variables of selected degree college students of Bhopal City; were found no association with the post-test level of knowledge at significance level at, age in year, religion, type of family, source of information and **education status, occupation**, family income was found significant at level of  $< 0.05$ . That reveals selected demographic variables are the independent in relation to post-test level of knowledge that was dependent.

Hence the research **hypothesis H<sub>2</sub>** is accepted, states that there is a significant association of post-test knowledge with selected demographic variables at level of significance 0.05.

The main aim of the study was to assess the effectiveness of Planned Teaching Programme (PTP) on knowledge regarding DOTS therapy among ASHA workers. The pre test and post test knowledge were assessed, it concluded that Planned Teaching Programme (PTP) was effective in enhancing the knowledge of ASHA workers, as majority of the ASHA workers had good knowledge regarding DOTS Therapy. This type of studies can be conducted in other settings to assess the effectiveness of Planned Teaching Programme.

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