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Effectiveness of Awareness Programme Related to Nikshay Mitra on Knowledge and Attitude Among Community People Between 18-45 Years of Age at Selected Area of Dehradun, Uttarakhand

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KEYWORDS:

Effectiveness, Awareness program, Nikshay Mitra, Knowledge and attitude & community people.

ABSTRACT:

Introduction: NIKSHAY MITRA, a community - based initiative providing emotional, financial, and nutritional support to TB patients through community participation and ownership. To address this challenge, the Indian government launched NIKSHAY MITRA is a groundbreaking scheme to support tuberculosis (TB) patients, promoting adherence to treatment and improving health outcomes. Hence the study aimed to determine the effectiveness of NIKSHAY MITRA on knowledge and attitude among community people between 18-45yrs of age at selected area of Dehradun. The pre-experimental research design was chosen to conduct the study with 100 samples matched with inclusion criteria. Samples were allocated into pre-experimental group by non -probability purposive sampling technique.

Methodology: In the study Quantitative research approach is used for this study. A study to assess the effectiveness of awareness program related to NIKSHAY MITRA on knowledge and attitude among community people between 18-45yrs at selected area of Dehradun. The research design selected was one group pretest post-test design by non- probability purposive sampling techniques. The study was conducted in 100 community people at selected area of Dehradun. The standardized scale like rt scale developed by Louis Leon Thurs tone as per who criteria was as a tool for data collection. The data was analyzed using descriptive and inferential statistics.

Results: The present study revealed that in the pre-test half of participant's community people in pre experimental group 52% had poor knowledge where in post-test one third of the participants 22% had poor knowledge among community people in selected area. In the pretest less than half of community people had 40% positive attitude more than half of the participants 60% had negative attitude among the community people in selected area. Whereas in post-test 2/3rd of the participants 70% had positive attitude and 1/3rd of the participants 30% had negative attitude. In the pretest mean score of knowledge score of NIKSHAY MITRA was 9.64 and the post-test mean was 13.93. The mean difference was 4.29 and the calculated paired t value 11.39 was statistically found to be significant. The demographic variables was age, work area, educational status, type of family, source of information has significant association with the pre-test level of knowledge and attitude among community people at $p<0.05$ level.

Conclusion: This study results in knowledge and attitude of participants was increased by administration of awareness program conducted by researcher from poor knowledge and negative attitude to good knowledge and positive attitude respectively.

1. Introduction

Imagine 68-year-old Ramesh Tuberculosis continues to haunt the fragile health care systems in the developing world. It is a disease that is not only limited to the illness due to the bacterial infection but is associated with a number of other impacts, like social and psychological ones. Eliminating tuberculosis is an arduous task and requires a number of initiatives that were taken by the national governments and collaborating partners. One such remarkable development is the introduction of "NIKSHAY MITRA. It is an initiative where the donors are encouraged to support the tuberculosis patients by providing nutritional, additional diagnostic and vocational support. In developing country like India,

Journal of Chemical Health Risks
www.jchr.org
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community-based initiatives for TB is major concern. This disease is highly prevalent in the endemic countries of Asia, Africa, etc. Tuberculosis control is part of the targets of Sustainable Development Goals, aim to end epidemic by 2030. Great success in terms of timely diagnosis, notification, and treatment initiation has been achieved in tuberculosis, the elimination targets appear to be far away. The situation is demanding new initiatives to eliminate tuberculosis. In countries like India, which aims to achieve tuberculosis elimination by 2025, there have been several remarkable developments that have happened in the last decade. Some of these include daily directly observed therapy short course, 'NIKSHAY POSHAN YOJANA active case-finding campaigns, and use of molecular tools for mycobacterium tuberculosis detection such as the expert MTB/RIF, recruitment of 'TB champions', shorter treatment regimens for drug-resistant tuberculosis, and the inclusion of newer drugs like bed aquiline, pteromalid etc. In the constant efforts to eliminate the oldest known infectious disease to mankind, another important initiative named 'NIKSHAY MITRA under 'PRADHAN MANTRI TB MUKHT BHARAT ABHIYAN' was launched. Although the government is making tireless efforts, it is evident that community involvement is necessary for the objective of elimination to be attainable. Hence, the initiative of 'NIKSHAY MITRA', which is aimed at providing support to the patients of tuberculosis at three levels - nutritional, additional diagnostic, and vocational support - is included in the tuberculosis elimination program. The community is sensitized to adopt tuberculosis patients (through multiple information, education, and communication activities), and these donors are called 'Nikshay Mitra'.

2. Material and Methods

The main aim of the study is to assess the effectiveness of awareness programme related to NIKSHAY MITRA on knowledge and attitude among community people between 18-45years of age at selected area of Dehradun. The study utilized Quantitative research approach one group pretest post-test research design. Samples were selected using non- probability purposive sampling techniques. The sample for the study were 100 community people at selected area of Dehradun. The study was conducted at selected community area maldevta, Dehradun, India. Written permission was obtained from authorities and written consent was obtained from the subjects and after explaining the purpose of the study. The standardized scale likert scale developed by Louis Leon Thurs tone as per who criteria was as a tool for data collection. The data was analyzed using descriptive and inferential statistics.

3. Results

The Collected Data was Organized and Presented Under Following Section:

Section 1: Frequency and percentage description of socio -demographic variable of the subjects.

Section 2: Finding related to pre test and post test level of knowledge and attitude of pre experimental group.

Section 3: Finding related to effectiveness of awareness programme related to NIKSHAY MITRA on knowledge and attitude among community people 18-45 yr in one group (Pre experimental group) by paired "t" test.

Section 4: Finding association between pre-test score with their selected demographic variables.

Section 1: Description of the Socio Demographic Variable of the Subjects

It deals with demographic data which consists of eight items to collect the sample characteristics. It comprises age, work area, family, educational qualification, family income, knowledge regarding TB and NIKSHAY MITRA, source of information regarding NIKSHAY MITRA.

Demographic Variables	**Experimental Group**	
	(F)	**(%)**
1) Age		
18 -26 years	25	25%
27- 36 years	35	35%
37-45 years	40	40%
2) Work Area		
Rural	20	20%
Urban	80	80%
3) Type of family		
Nuclear family	68	68%
Joint family	32	32%

Journal of Chemical Health Risks
www.jchr.org
JCHR (2026) 16(3), 43-53 | ISSN:2251-6727

Demographic Variables	Experimental Group	
4) Educational Qualification		
Primary school	10	10%
High school	30	30%
Intermediate	20	20%
Graduate	10	10%
5) Family income per month		
Below 5k	1	1%
5-10k	24	24%
10k- 15k	40	40%
Above 15k	35	35%
6) Knowledge regarding TB and Nik-shay mitra		
Yes	30	30%
No	70	70%
7) Source of information regarding nik-shay mitra		
Family and Relatives	10	10%
Television	40	40%
Health worker	40	40%
Other media sources	10	10%

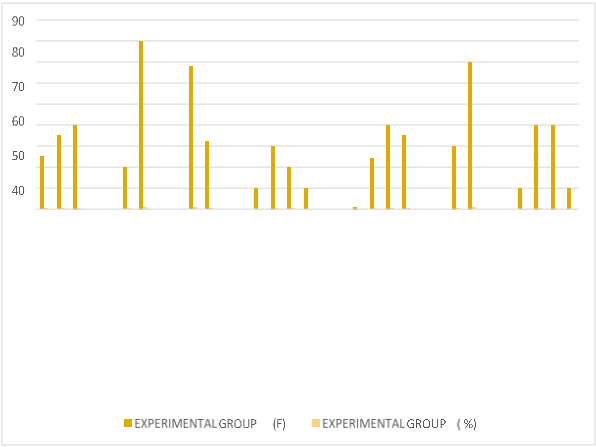


Table 1 & Figure 1. Frequency and percentage distribution of the Socio demographic variables of the subjects.

Section 2: Finding Related to Pre Test and Post Test Level of Knowledge and Attitude Score

Knowledge Score	Pre – Test Frequency (F)	Percentage	Post – Test Frequency (F)	Percentage
Poor	52	52%	22	22%
Average	33	33%	38	38%
Good	15	15%	40	40%
	100	100%	100	100%

The above table shows the comparison between pre test and post test level of knowledge scores. According to this, 52% have poor knowledge which reduced to 22% afterwards 33% of population had average knowledge score and it reduced to 38% after health awareness programme. Only 15% had good knowledge which increased to 40% after introduction of health awareness programme.

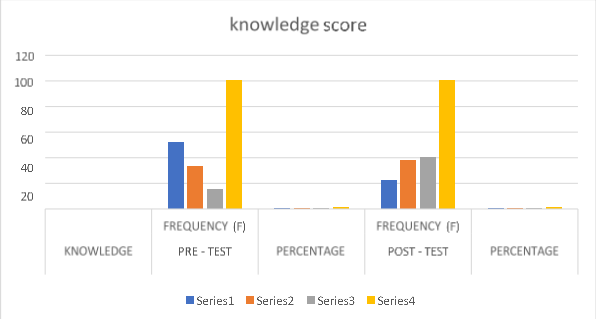


Table 2 & Figure 2. Finding related to pre-test and post-test level of Nikshay Mitra of pre experimental group.

4. Criteria Measures of Pre Test Knowledge Scores

Descriptive Statistics	Mean	S.D.	Median Score
PRE-TEST KNOWLEDGE	9.64	3.10	19

Criteria Measures of Post Test Knowledge Score	
Score level (N=100)	POST TEST f(%)
Poor knowledge	22%
Average knowledge	38%
Good knowledge	40%

Journal of Chemical Health Risks
www.jchr.org
JCHR (2026) 16(3), 43-53 | ISSN:2251-6727

The above table depicts that none of community people have poor knowledge 22%, have average knowledge 38% and 40% have gained good knowledge after attending health awareness programme.

Descriptive Statistics	Mean	S.D.	Median Score
POST TEST KNOWLEDGE	13.93	2.42	19

The above table shows that post test mean was 13.93, standard deviation was 2.42, and median was 19.

Section 3: **Finding related to comparison of pre test and post test knowledge scores of community people between 18-45yrs of age regarding Nikshay Mitra at selected area of Dehradun.**

Table Shows Comparison of Pre and Post Test Knowledge Scores

Assessment	Group	Mean	SD	Mean difference	't' value	'p' value
One group pre test and post test design	**Pre-test and post test**	9.64	3.10	4.29	11.39	0.00001S

Significance level 0.05 NS= non signicant, S=significant

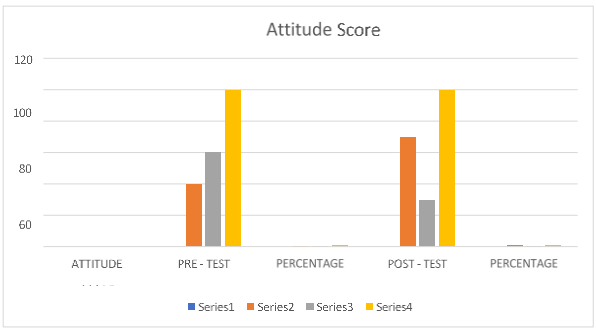
The above table shows the effectiveness of awareness programme It shows the significant difference between pre test and post test knowledge scores . At the significance level of 0.005, the calculated value was 11.397 which is higher than tabulated value, hence showing that there is significant difference between pre test and post test knowledge level of community people in selected community area.

- **Finding related to comparison of pre test and post test attitude scores of community people between 18-45yrs of age regarding Nikshay Mitra at selected area of Dehradun.**

Finding shows pre test and post test level of attitude score.

Attitude Score	Pre – Test Frequency (F)	Percentage	Post – Test Frequency (F)	Percentage
Positive	40	40%	70	70%
Negative	60	60%	30	30%
	100	100%	100	100%

According to this table, 60% of population have negative attitude towards nikshay mitra in perception of attitude towards nik-shay mitra among community people of age 18-45 yrs in selected community area. And only 40% had positive attitude towards nikshay mitra.



Attitude Score

Descriptive Statistics	Mean	S.D.	Median Score
Pre Test Attitude	7.08	4.80	19
Post Test Attitude	20.22	2.07	19

The above table shows that pre test mean was 7.08, standard deviation was 4.80, and median was 19. Whereas posttest mean was 20.22, standard deviation was 2.07, and median was 19.

This Table Shows Comparison of Pre and Post Test Attitude Score

Assessment	Group	Mean	SD	Mean difference	't' value	'p' value
One group Pre test and post test design	**Pretest and post test**	7.08 20.22	4.80 2.07	27.3	15.27	0.0001

Significance level 0.05 NS= non signicant, S=significant

Journal of Chemical Health Risks
www.jchr.org
JCHR (2026) 16(3), 43-53 | ISSN:2251-6727

The above table shows the effectiveness of awareness programme, It shows the significant difference between pre test and post test knowledge scores. At the significance level of 0.005, the calculated value was 11.397 which is higher than tabulated value, hence showing that there is significant difference between pre test and post test knowledge level of community people in selected community area.

Section 4: Finding Association Between Pre-Test Score with the Selected Demographic Variables

Knowledge Chi-square

N=100

Demographic variables	Poor	Average	Good	Chi-square	df	P value
1) Age						
18-26	10	10	5	16.60	4	0.0000
27-36	27	8	0			
37-45	15	15	10			
2) Work area o						
Rural	12	6	2	0.793	2	0.3732
Urban	40	27	13			
3) Type of Family o						
Nuclear	35	23	10	0.068	2	0.7943
Joint	17	10	5			
4) Educational qualification						
Primary school	10	0	0	34.418	6	0.0000
High school	22	6	2			
Intermediate	10	10	0			
Graduate	10	17	13			
5) Family income						
Below 5k	1	0	0	20.513	6	0.0000
5-10k	11	11	2			
10k- 15k	30	7	3			
Above 15k	10	15	10			
6) Knowledge regarding TB and nik-shay mitra						
Yes	12	13	5	2.654	2	0.1033
No	40	20	10			
7) Source of information regarding awareness related to nik-shay mitra						
Family and relatives	3	6	1	10.728	6	0.0011

Journal of Chemical Health Risks
www.jchr.org
JCHR (2026) 16(3), 43-53 | ISSN:2251-6727

Demographic variables	Poor	Average	Good	Chi-square	df	P value
Television	23	15	2			
Health worker	20	10	10			
Other media sources	6	2	2			

Table 4.5 It shows age was 16.60 at p value 0.0000, Work area was 0.79 at p value 0.3732, Type of family was 0.068 at p value 0.7943, educational qualification was 34.41 at p value 0.0000, family income was 20.51 at p value 0.0000, knowledge of TB and nikshay mitra was 2.65 at p value 0.1033, Source of information was 10.72 at p value is 0.0011. The obtained p value for these variables is 0.05, which represents the significant association between age , Work area represents there is no any significant association between work area , type of family has not significant association between family, Educational qualification has significant association between education, family income has significant association between income, knowledge of nikshay mitra represents has not significant association between knowledge, Source of knowledge has significant association between source of information .

Attitude Chi-square

N=100

Demographic variables	Positive	Negative	Chi-square	df	P value
1) Age					
18-26	12	13	4.344	4	0.0371
27-36	17	18			
37-45	11	29			
2) Work area o					
Rural	8	12	0.52	2	1.0000
Urban	32	48			
3) Type of Family o					
Nuclear	28	40	0.0123	2	0.7258
Joint	12	20			
4) Educational qualification					
Primary school	4	6	6.805	6	0.0091
High school	16	14			
Intermediate	10	10			
Graduate	10	30			
5) Family income					
Below 5k	0	1	0.919	6	0.3377
5-10k	10	14			
10k- 15k	15	25			
Above 15k	15	20			

Journal of Chemical Health Risks
www.jchr.org
JCHR (2026) 16(3), 43-53 | ISSN:2251-6727

Demographic variables	Positive	Negative	Chi-square	df	P value
6) Knowledge regarding TB and nik-shay mitra					
Yes	10	20	0.79	2	0.3732
No	30	40			
7) Source of information regarding awareness related to nik-shay mitra					
Family and relatives	0	10	15.41	6	0.0001
Television	24	16			
Health worker	14	26			
Other media sources	2	8			

This table shows that there was no significant association between attitude score and work area (p=1.0000), Type of family (p=0.7258), family income (p=0.3377), knowledge regarding TB and nikshay mitra (p=0.3732). There was significant association between knowledge of age variable (p=0.0000), Educational qualification (p=0.0000), family income (p=0.0000), Source of information (p=0.0011), Hence it can be interpreted that higher the source of information of community people.

5. Discussion

1) To Assess the Pre-Test and Post-Test Level of Knowledge and Attitude of Awareness Programme Related to NIK-SHAY MITRA Among Community People of Age Between 18-45 yrs in Selected Community Area of Dehradun

The present study revealed that in Pre experimental group, during pre-test more than half 52(52%) community people had poor knowledge and 1/3 of participant 33(33%) had average knowledge. After intervention of pre-test of community people, less than half 15 (15%) community people had good knowledge in post-test which shows that nikshay mitra were effective in increasing the level of knowledge. In attitude, during pre-test less than half of participants 40 (40%) community people had positive attitude, more than half 60(60%) community people had negative attitude of community people, then post test was conducted to assess the level of attitude among community people which shows that more than half (70%) community people had positive attitude level of nikshay mitra and 1/3rd of participants community people 30% had negative attitude level in nikshay mitra.

The result was supported by the study finding (2022) conducted a pre - experimental study to assess the effectiveness of awareness programme on knowledge among ANM students regarding tuberculosis and DOTS therapy among ANM students in Choithram College of nursing. In pre-test knowledge score findings shows that 2(4%) ANM had poor knowledge, 30(60%) had average knowledge and 18(36%) had good knowledge

score. Finding showed that the average knowledge was 18 %and that after intervention was 21%. so knowledge among ASHA workers has been improved by the result findings.The result was supported by the findings shows that the ASHA workers were in good category of knowledge. There were no ASHA worker in the average and poor knowledge category. Thus the educational programme was effective and improved the knowledge of ASHA workers. A study was conducted by kalpana Verma, a pre experimental study to assess the effectiveness of educational programme on knowledge regarding TB and DOTS therapy among ANM students in Choithram College of Nursing In post – test knowledge score findings shows 26(52%) had excellent knowledge scores, 22(44%) participants had good knowledge score, 2(4%) of ANM had average knowledge score and no one had poor knowledge score.

Journal of Chemical Health Risks
www.jchr.org
JCHR (2026) 16(3), 43-53 | ISSN:2251-6727

2) To Determine the Effectiveness of Awareness Programme Related to Nik-Shay Mitra on Knowledge and Attitude Among Community People Between 18-45 yrs in Selected Community Area, Dehradun

The present study reveals that pre- test mean score of pre experimental group was mean difference was 4.29 and paired 't' test value (calculated) was 11.39 and paired t test value (tabulated) was 2.03 at P=0.0001 level. Which indicate intervention with nikshay mitra was effective in pre experimental group and increasing the level of knowledge and attitude among community people. The pre-test mean score of nikshay mitra was 9.64 and SD= 3.10 and post-test mean score was 13.93 and SD = 2.42. the mean difference was 4.29 and paired 't' test value (calculated) was 11.39 and t-test value (tabulated) was 2.03 at P 0.00001 level. The pre- test mean score of pre experimental group was 9.64 and the mean difference was 4.29 and the calculated t test value was 11.39 found to be statistically significant at p 0.00001. The post-test mean score of experimental group was 7.08 and the mean difference was 4.72 and the calculated t test value 2.65 was found to be statistically not significant at p 0.05.

3) To Find Out the Relationship Between the Knowledge and Attitude on Awareness Programme Related to Nik-Shay Mitra Among Community People Between 18-45 yrs in Selected Community Area, Dehradun

A cross-sectional study method was used find out the relationship between knowledge and attitude. A total of 422 participants were selected from a list of sample frames who were family members of PTB patients who had used anti-TB medication in the previous 12 months prior to the study period using a systematic random sampling method. SPSS version 25 software was used to analyze the data. Bivariate and multivariate analyses were used to determine variables related to KAP on TB prevention and control. A variable with p-values less than 0.25 was included in the multivariable logistic regression model to find independent determinant factors. In the multivariate logistic regression, variables with p-values ≤0.05 were identified as statistically significant. A total of 414 family members responded to the survey questionnaire. The average knowledge score on TB was 17.11 ± 6.34. The majority (51.9%) of respondents had a good knowledge of TB cases. One-third of those polled had an unfavorable attitude towards PTB prevention, with a mean score of 3.16 ± 1.78 and 55.1% had good practice in preventing tuberculosis. Marital status (AOR = 1.7, 95% CI: 1.5–2.5) was an independent predictor of knowledge. Practice level is independently affected by occupation (AOR = 3.9; 95% CI = (1.7–8.7)) and health education on PTB (AOR = 2.4; 95% CI = (1.6–3.9). Knowledge, attitudes, and preventive practices about tuberculosis were not satisfactory when compared to several national and international studies. It is necessary to strengthen the program for health education and awareness-building on PTB.

The pre- test mean score of in pre experimental group was mean difference was 4.29 and paired 't' test value (calculated) was 11.39 and paired t test value (tabulated) was 2.03 at P=0.0001 level. Which indicate intervention with nikshay mitra was effective in pre experimental group and increasing the level of knowledge and attitude among community people. The pre-test mean score of nikshay mitra was 9.64 and SD= 3.10 and post-test mean score was 13.93 and SD = 2.42. the mean difference was 4.29 and paired 't' test value (calculated) was 11.39 and t-test value (tabulated) was 2.03 at P 0.00001 level. The pre- test mean score of pre experimental group was 9.64 and the mean difference was 4.29 and the calculated t test value was 11.39 found to be statistically significant at p 0.00001. The post-test mean score of experimental group was 7.08 and the mean difference was 4.72 and the calculated t test value 2.65 was found to be statistically not significant at p 0.05.

4) To Find Out the Association Pre Test Level of Knowledge and Attitude on Awareness Programme Related to Ni-Kshay Mitra Among Community People Between 18-45 yrs at Selected Area of Dehradun

The demographic variable chi-square value for knowledge variables age was 16.60(calculated value) at p value 0.0000, work area calculated value 0.79 at p value 0.37, Type of family calculated value 0.06 at p value 0.79 , Educational status of participants calculated value 34.41 at p value 0.0000 family income calculated value 20.51 at p value 0.0000 , knowledge regarding TB and nikshay mitra calculated value 2.65 at p value 0.10, source of information calculated value 10.72 at p value 0.0011. The obtained p value for these variables is more

Journal of Chemical Health Risks
www.jchr.org
JCHR (2026) 16(3), 43-53 | ISSN:2251-6727

than the 0.05, which represents that there is no any significance association between work area, type of family, education status of participant, knowledge regarding TB and nikshay mitra. Whereas age, calculated value 16.60 at p value 0.0000, educational status calculated value 34.41 at p value 0.0000, family income calculated value 20.51 at p value 0.0000, source of information calculated value 10.72 at p value is 0.011 which indicates that there is significant association with socio demographic variables.

The result was supported by the study finding, Shruti jha, (2019) conducted a study to evaluate the effectiveness of cross-sectional descriptive study conducted over a period of 2 months from October 2022 to November 2022 in a tertiary teaching medical college of Chengalpet district of Tamil Nadu among the medical students of the teaching medical college and hospital. Participants between the age of 18 and 28 years were included in the study with no serious illness. A stratified random sampling method was employed, wherein all the students were asked to fill out the online semi-structured questionnaire. Data entry was done in Microsoft Excel, and statistical analysis was done using SPSS version 16.0.

A cross-sectional descriptive study involved 176 undergraduate medical students with a mean age of 22.5 ± 3.5 years, where there are 95 (53.9%) females and 81 (46%) males as the participants of the study. Out of 176 participants, 140 (79.5%) participants had a fairly good awareness of first-line drugs, whereas 36 (20.5%) participants lacked awareness about NTEP, 99-DOTS, and Nikshay. The majority of the participants reported following most of the TB preventive measures. The current study reported that, despite being aware of TB as a disease, medical students had low awareness of government-led interventions such as NTEP, Nikshay, 99-DOTS. The need to intensify awareness activities among medical students to strengthen our battle against TB.

The demographic variable chi-square value attitude variables for age was 4.34 (calculated value) at p value 0.037, work area calculated value 0.00 at p value 1.0000, Type of family calculated value 0.12 at p value 0.72, Educational status of participants calculated value 6.80 at p value 0.009, family income calculated value 0.91 at p value 0.337, knowledge regarding TB and nikshay mitra calculated value 0.793 at p value 0.373, source of information calculated value 15.41 at p value 0.0001. The obtained p value for these variables is more than the 0.05, which represents that there is no any significance association between work area, type of family, family income, knowledge regarding TB and nikshay mitra. Whereas age 4.34, calculated value at p value 0.037, educational status calculated value 6.80 at p value 0.009, source of information calculated value 15.41 at p value is 0.0001 which indicates that there is significant association with socio demographic variables.

The result was supported by the study finding, et al (2018) conducted a study to assess the knowledge, attitude of ASHA pertaining to tuberculosis and DOTS at bharti Vijaypeeth deemed University Medical College, Pune. Modified Sample knowledge attitude survey questionnaire on tuberculosis were used to collect information. Total 43 (91.48%) out of 47% ASHA participated in the study. Mean age of them was 29.55yrs. Good knowledge Mean score = 6.58 out of 10 was observed regarding tuberculosis. All were well known that the tuberculosis can be cured with prompt treatment. Twenty-nine 67.44% ASHA preferred to go to health facility if they thought that they themselves had symptoms of tuberculosis. 38 (88.37%) ASHA had a favourable attitude towards tuberculosis patients. Study revealed good knowledge, favourable attitudes and practices pertaining to tuberculosis among st ASHA. The results showed that the gap in the knowledge of ASHA workers and major symptoms of tuberculosis were observed. There was an effect of TB treatment increase among participants.

6. Conclusion

It was concluded that most of the community people had poor knowledge and attitude related to nik-shay mitra awareness and health education was found the effective intervention to improve the knowledge or attitude of community people about this new scheme of tuberculosis. Researcher draws that demographic variables such as age, work area, type of family, educational status, family income, source of information, knowledge regarding TB and nik-shay mitra no significant association with their knowledge score while educational status had significant association with their knowledge and attitude score about the awareness programme on nik-shay mitra.

Journal of Chemical Health Risks

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