

## Original Research Article

# TO ASSESS THE KAP GAP AMONG PRIMARY CAREGIVER OF REGISTERED DOTS PATIENTS IN THE KANNAUJ DISTRICT WITH REGARD TO THE TREATMENT AND QUALITY SERVICES PROVIDED BY NTEP

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**ABSTRACT**

**Background:** Tuberculosis (TB) continues to pose a formidable public health challenge globally, and particularly in India, which carries the highest TB burden worldwide.<sup>[1]</sup> the effectiveness of any public health program, including the NTEP, is not solely determined by its reach but also by the quality of services it delivers. **Objectives-** To assess the KAP GAP of treatment services and other NTEP services among the general public and healthcare professionals and to determine the satisfaction level of patients in locality regarding NTEP treatment services.

**Materials and Methods:** Patient were interviewed on preformed questionnaire regarding awareness on TB and services provided by the program Targets and activities done by the program coordinators and how satisfactory they are with the program implementation status was assessed along with ASHA.

**Results:** Around 77.5 percent patients think transmission of TB cab be prevented and 95.1 percent think that TB can be cured. . Majority of ASHA heard about MDR TB (65%). Almost all ASHA knew about the DBT Nikshay Poshan Scheme.

**Conclusion:** Significant KAP-GAP was found in this study regarding TB in TB patients and primary health care giver so the Health education interventions programme on TB needs to be intensified among the community members to improve TB awareness and reduce transmission.

**Keywords:** Tuberculosis, Primary Care giver, knowledge, satisfaction level.

**INTRODUCTION**

Tuberculosis (TB) continues to pose a formidable public health challenge globally, and particularly in India, which carries the highest TB burden worldwide.<sup>[1]</sup> According to the World Health Organization (WHO) Global Tuberculosis Report 2024, India accounted for an estimated 26% of the global TB burden in 2023, with significant efforts underway to combat the disease.<sup>[2]</sup> India's commitment to eliminating TB by 2025, five years ahead of the global Sustainable Development Goal target of 2030, is enshrined in the National Strategic

Plan for Tuberculosis Elimination (NSP).<sup>[3,4]</sup> This ambitious goal underscores the urgency and comprehensive nature of the National Tuberculosis Elimination Program (NTEP), the successor to the Revised National TB Control Program (RNTCP), which has been pivotal in implementing strategies such as Directly Observed Treatment, Short-course (DOTS) since its inception.<sup>[5,6]</sup>

The success of TB treatment hinges critically on patient adherence to the prolonged and complex drug regimens. Non-adherence can lead to treatment failure, relapse, the development of drug-resistant TB, and continued transmission within the community.<sup>[7,8]</sup> While DOTS was designed to

enhance adherence through direct observation of drug intake by a healthcare worker or a community volunteer, the sustained engagement and support of primary caregivers at the household level are increasingly recognized as instrumental.<sup>[9]</sup> These caregivers, often family members, shoulder significant responsibilities in ensuring daily medication compliance, managing side effects, providing nutritional support, and facilitating access to healthcare services, thereby directly influencing treatment outcomes and patient well-being.<sup>[10,11]</sup> Despite their crucial role, the specific knowledge, attitudes, and practices (KAP) of these primary caregivers concerning TB treatment and the services provided by the NTEP often remain unquantified. Moreover, the effectiveness of any public health program, including the NTEP, is not solely determined by its reach but also by the quality of services it delivers. Quality of care encompasses various dimensions, including the accessibility, responsiveness, communication, and patient-centricity of health services.<sup>[12]</sup> This study aims to bridge this knowledge gap by assessing the knowledge, attitudes, and practices among primary caregivers of registered DOTS patients with regard to TB treatment and the quality of services provided by the NTEP. The findings from this research are expected to inform and strengthen caregiver support programs, enhance patient education strategies, and ultimately contribute to improved treatment adherence and more effective TB elimination efforts in India.

### Objectives

1. To be aware of the number of DOTS patients who have registered in the district and their biosocial relationships.
2. To assess the KAP GAP of treatment services and other NTEP services among the general public and healthcare professionals.
3. To determine the satisfaction level of patients in locality regarding NTEP treatment services.

## MATERIALS AND METHODS

The patients who have registered on DOTS under NTEP were the subject of the study. /NTEP (National Tuberculosis Eradication Program) at selected tuberculosis unit in a select Tuberculosis Unit of district with the help of District Tuberculosis Officer. A door to door survey was done on all the enrolled patients (both pulmonary and extrapulmonary) and

the community in a planned manner. After taking the informed consent they will be assessed clinically and relevant investigation will be suggested to them if at all seems necessary. Contact tracing was done to cover any missed out cases.

Patients was interviewed regarding his/her experience in terms of timely diagnosis and treatment. Availability of medication and paramedical staff.

Patient were interviewed on preformed questionnaire regarding awareness on TB and services provided by the program Targets and activities done by the program coordinators and how satisfactory they are with the program implementation status was assessed.

ASHA workers of that area, were also asked about the knowledge regarding the program and how useful the program will be in the elimination of Tuberculosis.

## RESULTS

Total number DOTS patient registered in 2024 was found to be 252 out of which 142 patients were interviewed during the course of project. Around 42 percent were in the age group of 20-30 which was maximum proportion and minimum proportion of participants were in the age group of 1-10 (1.4%). Majority of the participants were males (67.6%). Extrapulmonary patients were found to be only 10.6 percent. Around 77.5 percent patients think transmission of TB cab be prevented and 95.1 percent think that TB can be cured. Majority of patients take self treatment on falling sick and around 14 percent didn't heard of TB prior to this study.

After taking interview of ASHA regarding TB knowledge it was found that out of total 77 ASHA interviewed around 77 percent ASHA don't know when sputum should be examined after treatment and 74 percent don't know about the side effects of ATT. Majority of ASHA heard about MDR TB (65%). Almost all ASHA knew about the DBT Nikshay Poshan Scheme. When asked about the number of training done in previous 3 years it was found that majority (80%) had done only 1-3 training during this period and only 7% had done more than 7 training session during past 3 years.

Majority of the the patients were satisfied with the and regular supply of drugs (95%) but majority was not satisfied with timing of money received under Nikshay Poshan abhiyan (76%) and facilities of DOTS centre(66%).

**Table 1: Age distribution of participants**

Age(years)	Frequency	Percent
0-10	2	1.4
10-20	10	7.0
20-30	42	29.6
30-40	28	19.7
40-50	17	12.0
50-60	22	15.5
60-70	11	7.7
70-80	8	5.6
80-90	2	1.4

**Table 2: Distribution of patients according to KAP**

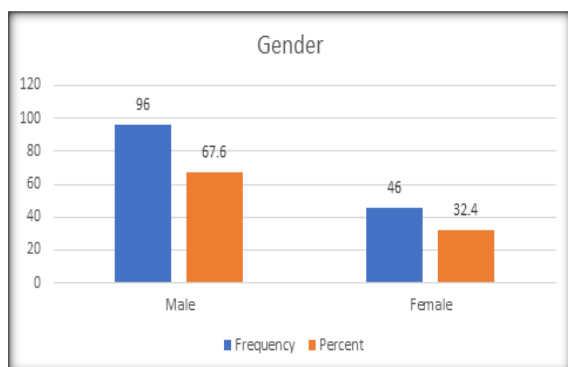
Do you Think Transmission of TB is Preventable	Frequency	Percent
Yes	110	77.5
No	9	6.3
Do not know	23	16.2
Do you think tuberculosis can be Transmitted can spread from person	Frequency	Percent
Yes	108	77.5
No	13	6.3
Do not know	21	16.2
Can TB be Cured	Frequency	Percent
Yes	135	95.1
No	2	1.4
Do not know	5	3.5
Have you heard of Tuberculosis/TB prior to this study	Frequency	Percent
Yes	122	85.9
No	20	14.1

**Table 3: Distribution of ASHA according to KAP**

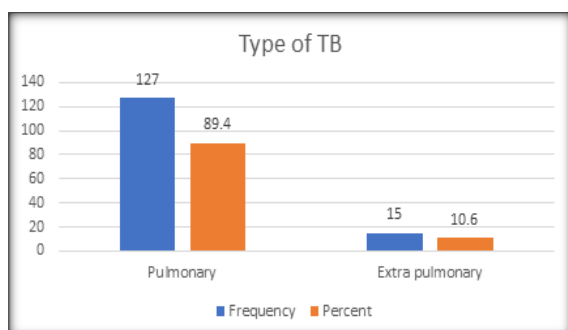
How long sputum can be examined after treatment initiation	Frequency	Percent
Correct	18	23.4
Incorrect	59	76.6
Which are the side effects of the Dots tell any two side effect	Frequency	Percent
Correct	20	26.0
Incorrect	57	74.0
Have you heard about MDRTB	Frequency	Percent
Correct	50	64.9
Incorrect	27	35.1
Last sputum examination should be done within how many days	Frequency	Percent
Correct	9	11.7
Incorrect	68	88.3
No of training	Frequency	Percent
1-3	61	79.3
4-6	13	16.9
>7	3	6.9

**Table 4: Distribution of patients according to satisfaction level with the NTEP services**

Are you with the facilities available at DOTS Centre	Frequency	Percent
Very satisfied	46	32.4
Satisfied	1	.7
Cannot say	85	59.9
Unsatisfied	3	2.1
Very unsatisfied	7	4.9
Are you with regularity of drug supply at DOTS centre	Frequency	Percent
Very satisfied	44	31.0
Satisfied	92	64.8
Cannot say	2	1.4
Unsatisfied	4	2.8
Are you satisfied with the timing of money you get under Nikshay poshan yojana	Frequency	Percent
Very satisfied	20	14.1
Satisfied	12	8.5
Cannot say	60	42.3
Unsatisfied	15	10.6
Very unsatisfied	35	24.6



**Figure 1: Distribution of patient according to gender**



**Figure 2: Distribution of participants according to types of TB**

## DISCUSSION

This study had majority of population in age group of 20-30 which was similar to the study conducted by Hulisani Matakanye et al (2021) where majority i.e, 42% were in the age group 18-29%, similarly in the recent study 14 percent didn't heard of TB prior infection where as Hulisani Matakanye et al (2021) study showed that 73.9% didn't know about TB prior to infection.

The recent study showed 95.1 percent think that TB can be cured which was similar as study conducted by Akash S Wallepure et al in which 83 percent thought TB can be cured.

This study concluded that 77 percent ASHA don't know when sputum should be examined after treatment and 74 percent don't know about the side effects of ATT. Majority of ASHA heard about MDR TB (65%). Similar results were found in the study conducted by Rakhi Dwivedi et al (2022) where percentage of ASHA who don't know about timing of sputum examination and side effects of TB were 4 and 66 percent respectively and 40% didn't heard of MDR TB. The recent study showed almost all ASHA knew about DBT Nikshay Poshan Scheme which was in contrary to the study conducted by Rakhi Dwivedi et al (2022) where only 16.8% ASHA knew about it. The difference in the results of the study is due to different study settings.

This study showed majority of the patients were satisfied with the facilities of DOTS centre (66%) and the similar results were found in the study conducted by S K Verma et al in which 64 % were satisfied with services of DOTS Centre.

## CONCLUSION

KAP-GAP was found in this study regarding TB in TB patients and primary health care giver so the Health education interventions programme on TB needs to be intensified among the community members to improve TB awareness and reduce transmission. Focused educational interventions on TB etiology and mode of transmission are required to increase TB preventative practices and improve health-seeking behavior among community members. The structured refresher training towards DOT and also training to work in tribal areas will further improve the KAP of ASHAs. It might be needed to provide a module or curriculum regarding awareness among ASHAs for strengthening follow-up system for tuberculosis patients among the tribal population.

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