VOLUME-7, ISSUE-11, NOVEMBER-2018 • PRINT ISSN No 2277 - 8160

Original Research Paper

Medical Science

CHALLENGES PERCEIVED BY THE PRIVATE PRACTITIONERS IN TB NOTIFICATION AT DISTRICT SHAHDOL, MADHYA PRADESH: A MIXED-METHOD STUDY

Rajesh Pandey	MS, (General Surgery), Chief Medical and Health Officer, Shahdol,Madhya Pradesh, India
Akash Ranjan Singh*	MD, Operational Research Fellow, Assistant Professor, Department of Community Medicine, Government Medical College Shahdol, Madhya Pradesh, India 484001 *Corresponding Author
Vikrant Kabirpanthi	MD (Community Medicine), Assosiate Professor, Department of Community Medicine, Government Medical College Shahdol, Pradesh, India 484001
K. Shubhash Chandra Bose	Department of Biochemistry, Government Medical College Shahdol, Pradesh, India 484001
Jagriti Diwedi	District Programme Coordinator (RNTCP) Shahdol, Madhya Pradesh, India
Rajesh Mishra	District TB Officer, District Shahdol, Madhya Pradesh, India

ABSTRACT

Objective: To assess the determinants and challenges perceived by the private practitioners (PP) for TB notification in district Shahdol, Madhya Pradesh in year 2018.

Methodology: A mixed-method study design: quantitative phase (descriptive cross sectional study) qualitative phase (2 Focus group discussion of PPs with manual content analysis).

Result: Of the 17 PPs, all were aware that TB notification is mandatory but none was aware about the notification process. Only 53% reported sufficient or strong support from RNTCP for notification and 18% reported at-least one notification in last one year. The perceive barriers in notification were lack of visit by healthcare workers, training, trust on programme and fear to loose patient while notification.

Conclusion: The TB notification by PPs in district Shahdol is unsatisfactory. Study recommends programme should make serious efforts to gain trust of PPs through ensure visit, regular training, timely disbursement of honorarium to ensure mandatory TB notification.

KEYWORDS : Revised National Tuberculosis Control Programme, Private notification, Operational Research, Mixed-method study

INTRODUCTION:

Despite of many serious and organized efforts taken under the National TB control Programe, Tuberculosis (TB) disease is still a major public health problem of India.[1] The incidence of TB in India is approximately 211 cases per lakh population, which translate to estimated 28,00,000 TB cases accounting for about a quarter of the world's TB cases.[2]

The country has a huge private sector and it is growing at enormous pace which predominates in health care and TB treatment. Non standardized prescribing practices among private providers (PP) with inappropriate and inadequate regimens and unsupervised treatment without supporting patient for ensuring treatment adherence with unrestricted access to first and second line TB drugs including without prescription are not very uncommon. This frequently leads to treatment interruptions and subsequent drug resistance.[3]

In order to ensure proper TB diagnosis, management, reduce TB transmission and address the problems of emergence of spread of Drug Resistant-TB, it is essential to have complete information of all TB cases. Therefore, Government of India declared TB a notifiable disease on 7th May 2012. All public and private health providers shall notify TB cases diagnosed and/or treated by them to the nodal officers for TB notification. Notification gives an opportunity to support private sector for following standardized practices in terms of Standard TB Care. It also helps the patients to get right diagnosis, treatment, Follow up, Contact Tracing, Chemoprophylaxis & facilitates social support systems. Complete and accurate data obtained from notification allow continuous evaluation of the trend of the disease with better estimation of burden and impact.[4]

Although TB notification rate and associated challenges have been reported by few studies in India, but none has been from the communities with tribal dominant population.[5-8]. So with this background we conducted the present study with the objectives to assess the determinants and challenges perceived by the private practitioners for the TB notification in district Shahdol, Madhya Pradesh (MP) in year 2018. This study will not only put light on the dynamics of private practitioners in district Shahdol but may also provide valuable suggestions in order to improve TB notification.

METHODOLOGY

General setting: Shahdol district is located at the eastern part of MP which caters 1.47% of total population of state.[9] District has population of 1,066,063 with sex ratio 974 and literacy rate is 66.7%. The population of Schedule Tribe and Schedule caste in district is 44.7% and 8.4% respectively.[10]

Specific setting: District Shahdol has four subdivisions, Beohari, Jaisinghnagar, Sohagpur and Jaitpur. The District Health System of Shahdol comprise of one district hospital at Shahdol, one civil hospital at Beohari, seven Community Health centers, 29 rural Primary Health Centers (PHC), one Urban PHC and 226 functional sub health centers. The nearest Medical college hospital is Jabalpur, which is approximately 200 km from Shahdol. In calender year 2018, approximately 22 private practitionres are registered in Nischay portal, which is a monitoring and supervision tool developed and controlled by the Central TB division, RNTCP.

Type of study: It was a mixed-method study of triangulation type. Where quantitative and qualitative part of study was done simultaneously. Under quantitative component, descriptive cross sectional study and under the qualitative component three Focus Group Discussions (FGD) were performed. The conclusion was drawn by the triangulation of quantitative and qualitative data.

Study subjects: All the doctors, government and private both, who are practising at district Shahdol were invited to participate in the study. This study was conducted during the orientation meeting of private practitioners being held on the month of June 2018. A Total of 19 doctors attended this meeting.

Sampling: Approximately 25 PPs of Shahdol district were invited to participate in the study. This meeting was part of the engagement of PPs for the management of TB patients under RNTCP.

Data collection method and tool: Engagement meeting was held at the late evening hours in a weekend, so that of maximum participation of private practitioners can be obtained. At the start of meeting, participants were distributed pretested, predesigned, close ended and validated paper based questionnaire.[5] The participants were requested to fill this form as per their convenience. Afterwards, two focus group discussions (FGD) were held to assess the perceived challenges by PPs and suggested suggestion regarding mandatory notification of TB disease. An Interview guide with broad open-ended questions was prepared, pilot-tested and used to conduct this FGD. The time duration of FGDs was 22 & 35 minutes. Verbatim notes were taken by one of the investigator and the same person also drew the sociogram.[11] The transcription was done on the next day of the FGDs. Field notes of observations during visits/interviews were also made.

ANALYSIS & STATISTICS:

Quantitative data analysis: Data collection was done on a paper based questionnaire then it was entered in Microsoft excel software. Data was extracted in an excel file and analysed using EpiData software (EpiData version 2.2.2.183 for analysis, EpiData Association, Odense, Denmark). The categorical variables were present in proportion and continuous variables were presented in median with inter quartile range. The STROBE guideline was used for reporting the quantitative component of the study.[12]

Qualitative data analysis (Phase II): The transcripts obtained were compiled and the investigators read the transcripts to become familiar with the data. Manual descriptive content analysis was used by the investigators to analyse the transcripts. Data was reviewed by a second investigator to reduce bias and interpretive credibility. The decision on coding rules and theme generation was done by using standard procedures and with consensus among investigators. Any difference between the investigators was resolved by discussion. Both inductive and deductive codes were generated. Similar codes were combined into themes. To ensure that the results are true reflection of the data, the codes/themes were related back to the original data. The themes were described and de-identified representative statements were included in the results to illustrate the themes.[13] The final tables arising after qualitative data analysis were shared with the stakeholders for their feedback and approval. The findings were reported by using COnsolidated criteria for REporting Qualitative Research (COREQ).[14]

Ethical consideration: As this event was the part of routine activity for the engagement of private practitioners under the District RNTCP so, appropriate programmatic approval was obtained from the competent authorities for the documentaion of this event.

RESULT

Quantitative part: Among the invited 25 private practitioners of Shahdol district, 17 attended the meeting giving response rate was 68%. The median age of these PPs was 56 years [IQR=37]. Out of theses 17 PP, 4 were up to 40 years, 7 were between 41-60 years and rest 6 had age more than 60 years. None of these PPs were of female sex and majority 10/17 were full time PPs. It is not very unusual that doctors from district health system (DHS) do private practice after obtaining the permission from state health department. Among these 17PPs, 5 were either currently working or retired from DHS, these were labelled as Public Health Providers (PHP). Of 17 PPs, 14 are practicing in Shahdol district for more than 2 years. Of the 17 PPs 12 were specialists i.e.; 3 each were from General Medicine and General Surgery, 2 were Pediatricians one each from Orthopedics, ENT and Ophthalmology. **[Table 1]**

Table1: Socio-demographic profile of private practitioners attending private practitioners engagement meeting held by district RNTCP Shahdol in June 2018

Variables	Sub categories	N=17 (%)
Age (years)		
	Up to 40	4(24)
	41-60	7(41)
	>60	6(35)
Type of doctor		
	Faculty of Medical college	2(12)
	Faculty of DHS	3(18)
	Full time PP	10(59)
	Retired from DHS currently PP	2(12)
Time since Private Practitioner		
	<2 Year	3(18)
	3-10 years	6(36)
	>10 years	8(47)
Type of practitioner		
	General	5(29)
	Specialist	12(72)
Type of speciality		
	Medicine	3(18)
	Surgery	3(18)
	Orthopaedics	1(6)
	Paediatrics	2(12)
	Others#	3(18)

Footnote: *All the study participants were male, DHS; District health system, PP; Private practitioners, Others#; ENT & Ophthalmology, RNTCP; Revised National Tuberculosis Control Programme.*

Despite of the fact that most of the PPs were practicing for more than two years and familiar with the existing health system, 47% (8/17) reported that either they are receiving minimal or no support for TB notification. Of the 17 PPs , 15 (88%) expects sufficient or strong support from RNTCP for notification of TB in future. Of all PPs, 82% (14/17) have not notified even a single TB case to RNTCP in last one year because they are not aware of the notification process. When suggestions were invited to enhance TB notification, 29% PPs asked for regular training, 18% each asked for availability of drugs to their clinics, regular healthcare worker visit and feedback by patient. **[Table 2]**

Table2: Knowledge and practice of private practitioners related to TB notification In district Shahdol, Madhya Pradesh, 2018

Variables	Sub categories	N=17 (%)
Whether TB notification is mandatory		
	Yes	17(100)
	No	0(0)
Aware about the notification process		
	Yes	0(0)
	No	17(100)
Support received from RNTCP in past for notification of patients		
	None	5(29)
	Minimal	3(18)
	Sufficient	6(36)
	Strong	3(18)
Expected support from RNTCP for notification of patients		
	None	1(6)

	Minimal	1(6)
	Sufficient	6(36)
	Strong	9(53)
TB notification by PP in last one year		
	At-least one	3(18)
	None	14(82)
Suggested solutions to enhance TB Notifications*		
	Training	5(29)
	Drug to be made available	3(18)
	Regular health worker visit	3(18)
	Feedback by patient	3(18)

Footnote: RNTCP; Revised National Tuberculosis Control Programme.
***More than one option may be selected by the study participant**

Qualitative part:

Two FGDs were conducted by the investigtors with the PPs in order to identify perceive barriers in related to mandatory TB notification. The identified codes, categories and themes were summarized in box 1. **[Box 1][Figure 1]**

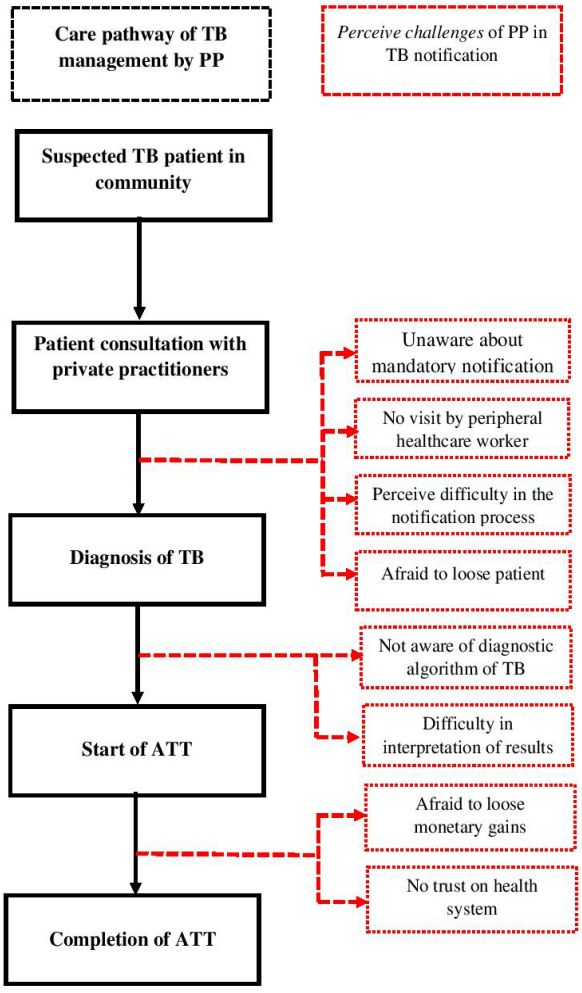
According to designed conceptual framework, three themes were identified i.e. programme related barriers, PP related barriers and patient related barriers. Among programme related barriers, the identified codes were no visit by healthcare worker, lack of trust and no training of programme guidelines for PPs. However, among PPs related barriers, the identified categories were inadequate knowledge related to programme guidelines and insecurity to lose the patient after notification. The identified category for patient related challenges was poor accessibility to RNTCP for diagnosis and management by TB patients. **[Box 1][Figure 1]**

Box1: perceived barriers in mandatory TB notification by private practitioners of district Shahdol, Madhya Pradesh 2018

Themes	Categories	Codes
Programme (RNTCP) related challenges		• Lack of visit by healthcare worker
		• Lack of trust on healthcare system (RNTCP)
		• Lack of regular training of programme guidelines
PPs related challenges	Inadequate knowledge related to programme guidelines	• Either not perceive important or unaware about the mandatory notification
		• Perceive difficulty in notification process
		• Unaware about the TB diagnostic algorithm
	Insecurity	• Difficulty in interpretation of laboratory or chest X ray results
		• Afraid to loose patients
		• Afraid to loose monetary gains
		• Lack of trust on healthcare system (RNTCP)
Patient related challenges	Poor accessibility of health system/RNTCP for TB patient	• Cumbersome diagnosis process • Erratic availability of RNTCP staff at healthcare centers/DMC

***Footnote**: RNTCP; Revised National Tuberculosis Programme, PP; Private practitioners, DMC; Designated Microscopic Centers*

Figure 1: "Perceive challenges" of private practitioners for the notification of TB along the care pathway of TB management at district Shahdol, Madhya Pradesh 2018



***Footnotes:** TB; Tuberculosis, PP; Private practitioners, ATT; Anti-tubercular treatment*

DISCUSSION:

The PPs were aware about the RNTCP guidelines related to mandatory TB notification and also had consensus that it has to be in place due to obvious reasons. Almost half of them reported either no or minimal support from the programme in past however majority were expecting sufficient or strong support in future in the form of training recent guidelines of RNTCP, availability of Anti-tubercular Treatment (ATT) drugs to their healthcare centers, regular visit of healthcare workers and feedback of notified patient. Like studies from other part of the country, present study revealed that PPs of Shahdol are also very much aware about the mandatory TB notification.[5,8] However they did not seem confident about the process of TB notification, similar finding is also reported from a study of south India.[15]

Among the perceived barriers in TB notification it was explored that lack of regular visit by healthcare workers to the healthcare centers of PPs, absence of regular training related to RNTCP guidelines enables the communication gap from both sides. It has led to lack of trust on existing healthcare system (RNTCP), which eventually led to poor TB notification by the Pps.

Present study has several programmatic implications and we make the following recommendations to the RNTCP. First, the engagement of PPs is responsibility of programme in first place so regular and quality training has to be ensured so that they can comprehend the public health challenges associated with the TB

i.e.; contact tracing, IPT to household child contacts, treatment adherence, prevention of emergence of MDR and XDR TB secondly, notification process has to be simplified, for that regular visit of programme healthcare worker has to be made mandatory, who can facilitate notification process then and there it self thirdly, once the treatment of notified patient is completed the honorarium has to be disbursed in timely manner so the PPs can trust the system and fourthly, regular availability of Programme staff has to ensure at DMC level, so that services under RNTCP become accessible to the patients and they can prefer TB management related services at public healthcare system rather than private healthcare system.

The strength of the study was a mixed-method study design, which not only quantified the magnitude of the problem i.e. number of PPs had not notified TB disease in past but also provided insights into the reasons for the problem, thus providing holistic overview. Secondly, we conducted the study in programmatic settings of tribal dominated district of India, which is first of its kind. Thirdly, we used internationally accepted guidelines for reporting the quantitative and qualitative parts of the study.[12,14] There were a few limitations, which relates to the small sample size, lack of representation of pharmacists & TB patients and challenges related to entry in NIKSHAY portal could not be explored during the present study.

CONCLUSION:

The study reveals the unsatisfactory TB notification by PPs in district Shahdol. The key barriers were lack of 1.visit by healthcare workers 2. training programmes related to RNTCP guidelines, 3. trust on RNTCP in fear of losing the patient while notifying and 4. irregular availability of RNTCP staff at healthcare centers/DMC. The study recommends the programme should expand its efforts in order to gain trust from PPs through ensure visit, regular training, timely disbursement of their honorarium related to notificatio

Source(s) of support: Nil
Competing interests: None

Acknowledgment:
The authors thank Revised National Tuberculosis Control Programme, district Shahdol, Madhya Pradesh for providing support and necessary guidance. We are also thankful to the Mr. Vikram Kalyani, Mr Devendra Pratap Singh, Mr Rupendra Singh Maravi, and Mr Pushpendra Singh Dhurve for their support in data collection.

Conflict of Interest: None

REFERENCES:

1. Revised National Tuberculosis Control Programme. (2016). Technical and Operational Guidelines for TB Control in India 2016. New Delhi: Central TB Division, Directorate genral of Health Services, Ministry of Health & Family Welfare. Retrieved October 15, 2018, from www.tbcindia.gov.in
2. Revised National TB Control Programme. (March 2018). India TB Report 2018 Annual Status Report. New Delhi: Central TB Division, Directorate General of Health Services, Ministry of Health and Family Welfare, Nirman Bhawan. Retrieved Oct 11, 2018, from https://tbcindia.gov.in
3. Revised National Tuberculosis Programme. (July 2012). Guidance for TB notification in India. New Delhi: Central TB Division, Directorate General of Health Services, Ministry of Health & Family Welfare, Government of India.
4. Revised National Tuberculosis Programme. (July 2012). Guidance for TB notification in India. New Delhi: Central TB Division, Directorate General of Health Services, Ministry of Health & Family Welfare, Government of India.
5. Sairu Philip, P. I. (2015). "They Know, They Agree, but They Don't Do"-The Paradox of Tuberculosis Case Notification by Private Practitioners in Alappuzha District, Kerala, India. Plos One, 1-13.
6. Srinath Satyanarayana, S. A. (2011). From Where Are Tuberculosis Patients Accessing Treatment in India? Results from a Cross-Sectional Community Based Survey of 30 Districts. PLoS One, 6(9, e24160).
7. Sukumar Dey, A. K. (2017). Public-Private Mix Model in Enhancing Tuberculosis Case Detection in Dakshin Dinajpur. Journal of Medical Science and Clinical Research, 5(1), 15785-90.
8. S. B. Nagaraja, A. S. (2014). Extending tuberculosis notification to the private sector in India: programmatic challenges? The International Journal of Tuberculosis and Lung Disease, 18(4), 1353-1356(4).
9. (2016). Census of India 2011: Madhya Pradesh Profile. New Delhi: Office of registrar General of India.
10. (2016). Census of India 2011Madhya pradesh: District Census Handbook Shahdol; Village and town directory. Registrar Gneral of India. New Delhi: Directorate of Census Operations, Madhya Pradesh.
11. Baiardi, J., Gultekin, L., & Brush, B. (n.d.). Using Sociograms to Enhance Power and Voice in Focus Groups.
12. von Elm, E., Altman, D., Egger, M., Pocock, S., Gotzsche, P., Vandenbroucke, J., & Initiative, S. (2007). The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement: guidelines for reporting observational studies. Lancet, 370(9596), 1453-1457.
13. Saldana, J. (2010). The Coding Manual for Qualitative Research. Los Angeles: Sage Publication.
14. Tong Sainsburg P Craig J, A. (2007). Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. Int J Qual Health Care . 349-357
15. S. Singh Chadha, S. N. (2017). Mandatory TB notification in Mysore city, India: Have we heard the private practitioner's plea? BMC Health Serv Res, 17(1), 1-6.