

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/354066637>

Need to involve traditional Indian medical systems – AYUSH, for Tuberculosis control in India in BMC Proceeding – FETPICON 2020

Article · August 2021

CITATIONS

0

READS

132

8 authors, including:



Rajesh Kumar Sood

Department of Health and Family Welfare, HP, India

35 PUBLICATIONS 110 CITATIONS

[SEE PROFILE](#)



Omesh Kumar Bharti

Indira Gandhi Medical College

169 PUBLICATIONS 340 CITATIONS

[SEE PROFILE](#)



Rajesh Guleri

14 PUBLICATIONS 86 CITATIONS

[SEE PROFILE](#)

Some of the authors of this publication are also working on these related projects:



Snakebites in India [View project](#)



Estimating prevalence of Thalassemia trait in Himachal Pradesh and suggest appropriate preventive measures to ward off people from this dreaded disease. [View project](#)

MEETING ABSTRACTS

Open Access

Proceedings of 'FETP-ICON 2020' Conference

Chennai, India. 3-5 March 2020

Published: 19 August 2021



A1

Need to involve traditional Indian medical systems - AYUSH, for Tuberculosis control in India

Rakesh Roshan Bhardwaj¹, Ravinder Kumar², Rajesh Sood¹, Beena Thomas³, Omesh K Bharti¹, Rajesh Guleri¹, Baria¹, Sunder Sharma⁴
¹Health and Family Welfare Department, Shimla, Himachal Pradesh, India; ²WHO Consultant National Tuberculosis Elimination Program (NTEP), Shimla, Himachal Pradesh, India; ³National Institute of Research in Tuberculosis (NIRT), Chennai, Tamil Nadu, India; ⁴Directorate of Ayurveda, Shimla, Himachal Pradesh, India

Correspondence: Rakesh Roshan Bhardwaj (rakesh9342@gmail.com)
BMC Proceedings 2021, 15(Suppl 11):A1

Background

Tuberculosis (TB) is a significant public health problem in India. Early diagnosis and complete treatment of tuberculosis is the cornerstone of prevention and control strategy [1]. Only 65% of TB cases are notified globally, and about three million TB cases were either not diagnosed, not treated, or not reported to national TB programs [1]. India accounts for about one-third of these 'missing' millions. Himachal Pradesh (HP) is a north Indian hilly state with a population of 7 million. The annual risk of TB infection for HP is 257 per lakh, but the annual case notification rate was 201 per lakh in 2014 [2]. There are two parallel health systems in HP; one is the Department of Health and Family Welfare. The other is traditional Indian medical systems, known as Ayurveda, Unani, Siddha, and Homeopathy (AYUSH). The AYUSH health facilities have comprehensive coverage [3] with registered strength of 6801 AYUSH doctors and 1230 AYUSH health centers in the public sector [3]. People living in villages, hilly regions, tribal areas, and difficult areas have easy access to AYUSH. Many presumptive TB patients may seek care from AYUSH who were neither trained nor formally engaged in NTEP, and many TB patients might be missed in this process. In HP, the case detection has plateaued to 14000 against the expected 18500 cases annually [2]. Although private practitioners' involvement in improving TB detection rates has been demonstrated to be a useful step in multiple studies across India [4,5], there is limited data on the participation of AYUSH practitioners in improving TB detection. We designed an intervention to increase the referral of presumptive TB cases from AYUSH to the public health facilities implementing NTEP in Shimla and Kangra Districts of HP. We compared the quality and number of presumptive TB referrals after intervention in 2017 compared to 2015-16.

Methods

We surveyed before and after the intervention in the two largest districts of HP, i.e., Kangra and Shimla. Both the districts have hard to

reach areas. Shimla is a predominantly hilly district while Kangra has a moderate altitude with some hard to reach areas. Study participants included all 360 public sectors AYUSH doctors and the NTEP staff in these two districts. In phase 1, the intervention was planned, and data collection, monthly review, and monitoring of key indicators were done in Phase 2.

In phase 1, We conducted a state-level advocacy workshop with key stakeholders from AYUSH, Health and Family Welfare department, and Government to create an enabling environment for the intervention (July-Dec 2016). We developed standardized training modules, operational protocols, and educational material as per NTEP guidelines and trained the AYUSH doctors. We mapped and established linkages between NTEP facilities and AYUSH facilities. We assessed the change in knowledge of participants before and after the intervention.

In phase 2, Each AYUSH doctors was supplied with IEC material, referral algorithm, sputum cups, and color-coded (White, Red & Yellow) triplicate referral forms. Monthly meetings of AYUSH doctors and study staff were conducted to collect the data. A line list of presumptive cases who did not report for sputum testing was shared with respective Senior TB supervisors (STS) of NTEP and other stakeholders. The yellow copy of the referral form was used as a referral form for sputum microscopy at linked DMC. The information on the number of referrals who reached DMCs and the red copy was collected from AYUSH doctors monthly. The information on attrition was inferred by data triangulation at each TB Unit for tracking cases who did not report for sputum microscopy. AYUSH doctors retained the White copy to maintain the record and feedback about diagnosis and treatment. The Baseline secondary data on referrals was collected for 2015-16. Ethical approval was obtained from the Institutional Ethics committee of the National Institute of Epidemiology, Chennai, India.

Results:

A pre-and post-sensitization questionnaire-based test was conducted for all AYUSH doctors. The evaluation was done on a scale of 1 to 20, and 68% scored 16-20. In 2015 and 2016, AYUSH doctors in the pilot districts referred 318 and 321 presumptive TB cases constituting 1% of total referrals, which increased to 1492 in 2017, including 2% of total presumptive TB cases tested under NTEP in 2017. Sputum Positivity rate of presumptive TB cases referred by AYUSH was 16% as compared to 9.4% of NTEP. The overall attrition rate of referrals reaching the DMC for the test was 56%; after tracking it reduced to 53%. In the in-depth interviews, AYUSH doctors felt empowered with the latest technical and operational guidelines of NTEP. High attrition was attributed to the far distance of DMCs and faith-healing practices. They demanded in house DMCs.



Conclusion

The remarkable increase in the referral of presumptive TB cases by AYUSH doctors to nearest DMCs improved TB case detection in two pilot districts of Himachal Pradesh. The Government of HP adopted this TB training-cum-logistics linkage model for AYUSH doctors state-wide under "Mukhyamantri Kshay Rog Nivaran Yojana" (Chief Minister TB Elimination Scheme). Also, the positivity rate among those referred by the AYUSH practitioners was higher than that in the cohort referred by Allopathic practitioners in these districts, which is an indicator of better case selection by AYUSH practitioners for presumptive TB testing. We recommend that NTEP should be mainstreamed in the AYUSH. DMCs should be institutionalized in AYUSH. We also recommend AYUSH doctors and pharmacists training on identifying presumptive TB cases and early referral for sputum examination throughout the country.

References

1. Global Tuberculosis Report 2016 [Internet]. [cited 2020 Jan 7]. Available from: <https://apps.who.int/medicinedocs/en/m/abstract/Js23098en/>
2. TB India 2016 : Central TB Division [Internet]. [cited 2020 Jan 7]. Available from: <https://tbcindia.gov.in/index1.php?lang=1&level=2&sublinkid=4569&lid=3174>
3. AYURVEDA Department Himachal Pradesh [Internet]. [cited 2020 Jan 8]. Available from: <http://ayurveda.hp.gov.in/Ayush.aspx>
4. Dewan PK, Lal SS, Lonroth K, Wares F, Uplekar M, Sahu S, et al. Improving tuberculosis control through public-private collaboration in India: a literature review. *BMJ*. 2006 Mar 11;332(7541):574–8.
5. Bhardwaj RR, Oeltmann JE, Ravichandra C, Chadda VK, Das M, Kumar AMV. Engaging private providers and Ayurvedic practitioners in Bilaspur, India: did it increase TB case detection? *Public Health Action*. 2016 Jun 21;6(2):154–6.

A2

Transmission of Human Immunodeficiency Virus among long-distance truckers in Purba Medinipur district, West Bengal; India

Dr. Dilip Kumar Biswas¹, Dr. Rama Bhunia²

¹Dy Chief Medical Officer of Health-II, Purba Medinipur district, West Bengal, India; ²District Maternal & Child Health Officer, Howrah district, West Bengal, India

Correspondence: Dr. Dilip Kumar Biswas (dilipbiswas29@gmail.com)
BMC Proceedings 2021, 15(Suppl 11):A2

Background

Long-distance truckers (LDTs) are at risk of getting Human Immunodeficiency Virus (HIV) infection and Sexually Transmitted Infection (STI) [1]. While LDTs are on the roads, they could not meet with their regular sexual partners. LDTs may engage with the commercial sex

partner and expose to STI and HIV [2]. Limited health care services towards LDTs have been observed, and it is required to improve the sexual life of LDTs [3]. We analyzed data of LDTs visiting Haldia industrial areas between April 2017 and March 2019 Purba Medinipur district, West Bengal, India. The objectives of the study were to estimate the prevalence of HIV and STI among LDTs.

Methods

We conducted the study at Haldia, an Industrial area of Purba Medinipur district, West Bengal, India. There were 20–25 large and small-scale industries. LDTs visited at Haldia industrial area for loading and unloading of goods. Health check-ups and interviews were done at the "Satellite" clinic run by "Transport Corporation of India" as a targeted intervention project (TI). Counseling and HIV testing were done by the "Whole Blood Finger Prick" test (screening test) if they consented to the test. For confirmation, clients were sent to the nearest ICTC. STI cases were diagnosed as per the presence of syndromes. Medicines for minor ailments and STI treatment were provided at clinics. ART medicines were supplied from the ART center, Tamluk District Hospital, Purba Medinipur. Data were analyzed in MS excel.

Result

The total footfalls of LDTs were 21065. Among them, 22% (4650) were tested for HIV between April 2017 and March 2019. LDTs of 23 different states of India visited Haldia industrial area. The maximum LDTs were from Bihar, Jharkhand, Uttar Pradesh, and West Bengal. The average stay of LDTs was ten days to 20 days with a range of one to 60 days. Among 4650 tested for HIV, 54.2% (2520/4650) were in 18–30 years with a maximum age of 70. About 76% of the LDTs were drivers, 23% were helpers. Among the total tested, 26 (0.55%) were found reactive for HIV, and the maximum cases were among the age group of 31–45 years (0.80%). Among positive cases, none of them used a condom during their last sexual act. HIV reactive LDTs were tagged at their nearest ART center for medicines. The majority were started on Antiretroviral therapy [92.30% (24/26)]. Among all LDTs, 2.8% (591/21065) had STI, and 75% had a urethral discharge. All STI-infected LDTs were treated with STI medicines (Table 1).

Conclusion

Transmission of HIV and STI among LDTs was a public health problem in Haldia industrial area, Purba Medinipur district, West Bengal. HIV reactive cases did not use a condom during the last sexual act. The lack of use indicated poor knowledge about HIV transmission. The doctors advised them to check the HIV status of their spouse. STI was also common among LDTs. We arranged STI medicines for STI-affected LDTs. However, there was a lack of facility at the "satellite clinic" to test syphilis. There were no STI kits [Point of care test kit (POC)]. It was challenging to arrange a VDRL test (test for syphilis) among LDTs at the integrated counseling & testing center (ICTC) as ICTC was situated at a distance

Table 1 (abstract A2). Age-wise distribution of HIV cases and prevalence of Sexually Transmitted Infections (STI) among truckers, Purba Medinipur district, West Bengal, India

Age group	Tested for HIV N=4650	Reactive	Positivity Rate/ 1000
< 17 Years	6	0	0.0
18 - 30 Years	2520	11	4.4
31 - 45 Years	1742	14	8.0
46 - 60 Years	362	1	2.8
> 60 Years	20	0	0.0
Overall	4650	26	5.6
Sexually transmitted Infections (STI)	Number with STI N = 21065	%	
Urethral Discharge (UD)	442	2.1	
UD (Non-herpetic)	128	0.6	
UD (Herpetic)	21	0.1	
Total	591	2.8	