FAMILY DOTS TO PREVENT TREATMENT LOSS TO FOLLOW UP IN HARD TO REACH AREAS OF KONDAGAON DISTRICT, CHHATTISGARH STATE, INDIA

EXECUTIVE SUMMARY

Adherence to treatment is essential to achieve success in TB treatment. According to TB India report 2014 and 2015 the cure rate of new smear positive sputum cases is about 80% in the state of Chhattisgarh, India. The lost to follow up rate among the new smear positive sputum cases is about 7%.

The vision of WHO's End TB strategy cannot be achieved unless rigorous efforts are taken to treat lost to follow up cases. Family DOTS have been implemented in many developing countries as an effective strategy. This implementation research aimed to examine the effect of family DOTS on TB treatment adherence among new smear positive sputum, new smear negative and extra pulmonary TB patients to minimize lost to follow up in Chhattisgarh. Study findings report that statistically there was no significant differences in the Family DOTS and Standard DOTS with regard to cure rates, treatment completion, lost to follow up rates and death. Family DOTS may not be effective in this area and family members may require more training in order to become more effective DOTS provider.

STUDY BACKGROUND

Tuberculosis (TB) remains a worldwide healthcare problem and is one of the major health concerns in Chhattisgarh, India. The state is witnessing an increasing trend in the number of Multi-Drug Resistant Tuberculosis (MDR-TB) cases. One of the underlying factors for the increase in MDR-TB is the rise of treatment lost to follow up cases. The TB India report 2014 shows that there are about 7% lost to follow up cases among the new smear positive sputum cases. Poor implementation of Directly Observed Treatment Short Course (DOTS) strategy is a threat to the achievement of high cure rate. Adherence to TB treatment is crucial to achieve cure rate while avoiding the emergence of drug resistance.

One of the studies conducted in Raipur district, Chhattisgarh suggested that only 13.2% of the DOTS centres properly implemented DOTS strategy and only 9.5% of the treatment cards were updated. This difference may vary across different districts. This suggests that there is serious negligence in implementing DOTS strategy in the state. Moreover, there is no uniformity of DOTS providers in the state.

A child watches as her mother takes her TB medications (DOTS) © WHO/TBP/Gary Hampton

GAP ANALYSIS

The standard DOTS have been implemented throughout the nation to eliminate TB. But it has been a challenge in state such as Chhattisgarh, which has lots of hilly and hard-to-reach areas. Also, the diversity of languages in the state, worsen the situation further to disseminate the communication materials which are key for behavioral change. Many studies conducted in different parts of the world suggest that family DOTS is one of the effective methods to increase treatment compliance among TB patients. Nevertheless, this strategy is more effective in rural rather than in urban setting. These different studies showed cure rates ranging from 85% to 95% involving family members as DOTS providers (Newell JN, et.al., 2006; Duangrithi D, et.al., 2014).

India's experience on family DOTS has been a promising attempt to find solution to the increasing number of multi drug resistant TB in the country. It is also a well known fact that domiciliary chemotherapy of tuberculosis conducted from outpatient clinics is widely practiced in developing countries. A cluster-randomized trial conducted in Gujarat among newly diagnosed paediatric TB patients suggests that treatment success rate was 95.8% (Dave PV, et.al., 2016). However this study was limited to paediatric TB patients only. Further studies are needed to generate evidences on different setting and different age group of TB patients before scaling up this strategy at mass level.

STUDY OBJECTIVES

- To study the outcome of family DOTS in relation to conversion rate, cure rate and treatment completion.
- To study the treatment outcome differences among patients supervised by household members and health care workers (Current DOTS providers).
- To study the feasibility and acceptability of family DOTS by TB patients and their families, perceptions of health care providers.

Intervention	Activity	Responsibility
Family member	DOTS provider	• One of the family members as DOTS provider. • Supervise drug consumption of the patient.
Mitanin (ASHA workers)	Health Education	• Provides health education to patients as well as family members. • Makes family visit and fills treatment card. • Coordinates with care givers for intervention if a patient defaults. • Strengthens village health committee. • Assists Mitanin trainer to train committee or group members on TB.
Community leaders	Health education	• Make home visit, educate and counsel defaulters.
Senior Treatment Supervisor (STS)	Health education & Counseling	• Provides health education and counseling to defaulters. • Provides training to Mitanins on TB.
Block MO/DTO	Health education & Counseling	• Makes home visit to educate and counsel defaulters.

KEY FINDINGS

- It has been observed that the Family DOTS have resulted in lower rate of cure and treatment completion compared to current DOTS facilities (68% vs 72%).
- Higher rates of death in the family DOTS group when compared to control group (11% vs 9%).
- Higher rates of lost to follow up in the family DOTS group (16% vs 8%).

POLICY IMPLICATIONS AND RECOMMENDATION

- No significant differences were found between Family DOTS and Standard DOTS. It is therefore, the family DOTS may not be an effective strategy to prevent treatment lost to follow up rates among TB patients compare to standard DOTS.
- Though the Family DOTS were found to have less or equal impact compared to the standard DOTS; it can be used wherever the community DOTS providers are not effective enough or where standard DOTS cannot reach patients.
- Adding an intervention component where family members are offered DOTS training may increase the success of family DOTS.

KEY REFERENCES

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