

## ABSTRACT

**Background:** Tuberculosis (TB) is one of the infections affecting children worldwide. It causes significant morbidity and mortality, especially in infants and young children. Therefore The WHO currently recommends contact investigation in high-risk populations like children aged under 5 years and WHO also recommends offering IPT for at least six months to all children below five years of age who have household contact with an infectious TB case. Implementation fidelity of this program is very important to ensure that instruction has been implemented as intended in NTP guideline and helps in the determination of intervention effectiveness.

**Objective:** This study aims to assess implementation fidelity of TB contact screening and provision of isoniazid preventive therapy (IPT) for under 5 years in PHC in Dili, Timor Leste.

**Method:** This study used mixed method exploratory sequential design, which consists of qualitative and quantitative approach. Qualitative study was conducted to assess adherence of health staff towards the guideline and to explore the barriers of program implementation. Cross sectional survey used as quantitative approach. It assessed quality of delivery and parent's responsiveness towards the programs.

**Result:** The interview was done to 7 heads of PHC and coordinators of TB program, 5 doctors and 1 TB nurse. The participants for the survey were 148 parents of the children who had contact with SS+ patient. The finding of the study reveals that adherence to the guidelines seems to be affected by the health workers personal factor as skills on counselling, the strategy to facilitate the implementation like the the availability of human resources, financial resources, transportation and the monitoring strategy, and the patient factors. The quality of delivery in availability, communication and information, patient-provider interaction and counselling, and TB-HIV relationship is need to be improved. According to the survey the interest and engagement of the parents towards the programs are moderate in government PHC which produces a moderate level of satisfaction of the implementation of the programs.

**Conclusion:** The fidelity of implementation of TB contact screening and the provision of IPT for under five years in its dimensions like the adherence to the guideline, the frequency, quality of delivery and patient responsiveness is moderate in government PHC.

**Keywords:** Pediatric TB, TB contact screening, isoniazid preventive therapy and implementation fidelity