

## **FAMILY PERCEPTION AND MOTIVATION TOWARD TUBERCULOSIS PREVENTIVE THERAPY: A DESCRIPTIVE STUDY**

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### **Abstract**

Tuberculosis (TB) remains a major public health problem in Indonesia, including in Mojokerto District. The success of TB preventive therapy depends not only on individual compliance but also on family perception and motivation as the closest support system. This study aimed to describe family perception and motivation toward tuberculosis preventive therapy at UPT Puskesmas Pacet, Mojokerto District. This was a quantitative descriptive study involving 36 families with household members at risk of TB. Data were collected using a structured questionnaire covering perception and motivation aspects, and analyzed descriptively using frequency and percentage distribution. The results showed that the majority of respondents (52.8%) had a negative perception of pulmonary TB preventive therapy, and the majority of respondents (66.7%) had a high level of motivation in supporting the implementation of TB preventive therapy. Although some families still have negative perceptions, the high motivation observed indicates strong potential for successful TB prevention programs at the community level. Continuous health education is needed to improve family understanding so that high motivation is accompanied by positive perception toward TB preventive therapy.

**Keyword:** perception; motivation; family; preventive therapy, pulmonary tuberculosis

### **INTRODUCTION**

Tuberculosis (TB) remains a major public health challenge worldwide and in Indonesia. According to the Global Tuberculosis Report 2023, Indonesia accounted for approximately 10% of global TB cases, making it one of the countries with the highest TB burden globally [1], [2]. The estimated TB incidence in Indonesia in 2023 reached 394 cases per 100,000 population, with approximately 14% of cases undiagnosed [3]. The World Bank also reported a TB incidence rate of about 387 per 100,000 population for Indonesia in 2023 [4].

The COVID-19 pandemic has significantly disrupted TB control efforts by reducing case detection and treatment access. During 2020–2021, TB case notification in Indonesia declined sharply due to limited health service access and decreased visits to healthcare facilities [5]. Following the pandemic, TB case notification began to recover; however, a notable increase was observed in East Java Province, where TB case notifications rose by 31.9% compared to the pre-pandemic period (2018–2019) [6]. By October 2024, the East Java Provincial Health Office reported approximately 73,247 notified TB cases, confirming that the province remains one of the most affected regions in Indonesia [7].

In 2022, East Java reported 78,799 newly detected TB cases, indicating an increasing trend compared to previous years. During the same year, approximately 81,753 cases (or about 74% of the estimated 107,547 TB cases) were successfully detected. Nevertheless, recent reports from 2024 indicated that only 61.10% of the estimated 116,752 TB cases in East Java were detected, reflecting persistent challenges in case finding and program implementation [8]. One of the key strategies in TB prevention is the implementation of Tuberculosis Preventive Therapy (TPT) for household contacts of individuals with active TB. The success of TPT is

influenced not only by the availability of medications and health system capacity but also by psychosocial factors within families, particularly their perception and motivation toward TB prevention. Negative perceptions, such as disbelief in the benefits of therapy or assumptions that preventive therapy is unnecessary for asymptomatic individuals, can hinder program implementation. Conversely, strong family motivation, both internal (awareness and responsibility for health) and external (support from healthcare providers and community), plays a crucial role in encouraging adherence and continuity of preventive treatment.

In the local context of UPT Puskesmas Pacet, Mojokerto District, studies exploring family perspectives and motivation toward TB preventive therapy remain limited. Considering East Java's high TB burden and persistent gaps in detection and treatment, this study aims to describe family perception and motivation toward tuberculosis preventive therapy within the working area of UPT Puskesmas Pacet. The findings are expected to provide a foundation for developing culturally relevant health education strategies and family-based interventions to enhance TB prevention efforts at the community level.

## **RESEARCH METHODS**

This study employed a quantitative descriptive design. The design was selected to obtain a current snapshot of family perception and motivation toward tuberculosis preventive therapy (TPT) within the working area of UPT Puskesmas Pacet, Mojokerto District, without manipulating any variables. This design allows researchers to describe the existing conditions as they are, aligning with the study's objective to portray the community's behavioral tendencies regarding TB prevention. The population consisted of all families who had household members at risk of tuberculosis infection within the working area of UPT Puskesmas Pacet, Mojokerto District. A total of 36 families participated in the study, selected using a total sampling technique due to the relatively small population size and the inclusion of all eligible respondents. The inclusion criteria were as follows: 1) Families with at least one household member in close contact with a person diagnosed with pulmonary TB, 2) Families who were willing to participate and provided informed consent, and 3) Families able to read and understand the questionnaire content.

The main variables of this study were family perception and family motivation toward tuberculosis preventive therapy. Family perception refers to the family's cognitive and emotional interpretation regarding TB prevention, including knowledge, beliefs, and attitudes toward TPT. Family motivation refers to the internal and external driving factors influencing family involvement in supporting TB preventive therapy adherence, such as awareness, responsibility, and encouragement from health workers or peers.

Data were collected using a structured questionnaire developed based on the Health Belief Model (HBM) framework. The questionnaire consisted of three sections: demographic information, perception scale, and motivation scale. Perception scale, consisting of 20 items rated on a 4-point Likert scale (1 = strongly disagree to 4 = strongly agree). Motivation scale, consisting of 10 items using the same scale. The instrument was tested for validity and reliability among 10 respondents outside the study area. The validity test showed that all items had a r-count greater than the r-table value (0.361), and the reliability test using Cronbach's Alpha yielded a coefficient of 0.82, indicating high internal consistency.

Data were analyzed descriptively using frequency and percentage distributions. The total scores for perception and motivation were categorized as follows: positive/high (if the score was greater than or equal to the skor T) and negative/low (if the score was low than the skor T).

This study received ethical approval from the Health Research Ethics Committee of Sekolah Tinggi Ilmu Kesehatan Majapahit, with approval number 236/EC-SM/2025. Written

informed consent was obtained from all participants prior to data collection. Ethical principles of respect for persons, beneficence, non-maleficence, and justice were upheld throughout the study, following international research ethics guidelines.

## RESEARCH RESULTS

A total of 36 families participated in this study. Table 1 presents the distribution of family perception and motivation toward tuberculosis preventive therapy (TPT).

**Table 1. Distribution of Characteristic, Family Perception, dan Family Motivation Toward Tuberculosis Preventive Therapy (n=36)**

Characteristic	Category	Frequency (f)	Percentage (%)
Aged	10 – 19	1	2,8
	20 – 35	17	47,2
	36 – 45	9	25
	46 – 59	6	16,7
	> 60	3	8,3
Gender	Male	15	41,7
	Female	21	58,3
Education	Elementary School	9	25
	Junior High School	8	22,2
	Senior High School	17	47,2
	College	2	5,6
Income	< Rp 4.856.026	34	94,4
	≥ Rp 4.856.026	2	5,6
Perception	Negative	19	52,8
	Positive	17	47,2
Motivation	Low	12	33,3
	High	24	66,7

The results showed that the majority of respondents (52.8%) had a negative perception of pulmonary TB preventive therapy, and the majority of respondents (66.7%) had a high level of motivation in supporting the implementation of TB preventive therapy. The findings indicate a contrast between perception and motivation among families. While most respondents demonstrated strong motivation to support TB preventive therapy, their negative perceptions could represent a barrier to effective participation and adherence. This pattern suggests that motivation alone is insufficient if not supported by a clear understanding and positive attitude toward the purpose and benefits of TB preventive therapy.

## DISCUSSION

The present study revealed that the majority of families (52.8%) held negative perceptions toward tuberculosis (TB) preventive therapy, while most respondents (66.7%) demonstrated high motivation to support its implementation. This contrast reflects a cognitive, behavioral gap in which motivation exists but is not adequately supported by knowledge or belief in the benefits of preventive therapy. Similar findings were reported by Muzakkir et al. in Family Attitudes and Behavior toward Tuberculosis Prevention in the Lembang Health Center Area, West Sulawesi, Indonesia, who noted that limited knowledge and inaccurate perceptions of transmission risk hindered family participation in TB prevention programs [9].

A comparable study conducted at Tamalanrea Health Center in Makassar found that families with moderate knowledge about TB prevention did not always translate their

awareness into consistent preventive actions. Barriers such as fear of drug side effects, belief in traditional healing, and insufficient communication with healthcare professionals often undermined adherence [10]. Likewise, research in Tasikmalaya City at 2023 demonstrated that although knowledge significantly influenced attitudes, psychosocial factors, including stigma, misinformation, and limited access to healthcare, continued to shape preventive behavior. These findings resonate with the current study's results, suggesting that negative perception arises not only from informational deficits but also from sociocultural and emotional dimensions of family life [11].

The study Key Determinants of Tuberculosis Prevention Behaviors Among Families in Indonesia further reinforces that TB prevention behaviors are determined by five primary factors: knowledge, attitudes, family cohesion, health worker support, and the role of community volunteers. In the present study, high motivation among families may reflect the influence of strong emotional and social bonds, showing that social support can compensate for knowledge gaps [12].

This interpretation is strengthened by findings from Rakhmawaty et al. [13], [14], which explored family engagement in TB prevention among children living in TB-affected households. Both studies revealed that families initially experienced fear and denial but gradually developed collective responsibility through sustained education and empathetic communication with health professionals. This transformation, from fear to understanding, illustrates how negative perception can be reconstructed into positive belief through supportive relationships and motivational guidance.

Additionally, the study Relationship of the Family Health Task Implementation with Motivation and Adherence of Tuberculosis Treatment among Tuberculosis Patients found a significant correlation between families' ability to perform health tasks and patient adherence. Families who actively monitored treatment progress and provided emotional support demonstrated stronger motivational influence and better adherence outcomes. This highlights that motivation is not an isolated psychological factor but a dynamic product of interaction between knowledge, role performance, and family cohesion [15].

The importance of integrated motivation and information was also highlighted in Influence of Information, Motivation, and Behavior of "Trisna" to Drug Compliance, Nutritional Status, and Family Support in Patients with Tuberculosis. This study emphasized that information and motivation work synergistically to promote adherence, while family support serves as a mediating factor. Inadequate or inconsistent information delivery may reduce motivation, while well-informed families are more confident and proactive in managing TB treatment and prevention [16].

Moreover, a study applying the Health Belief Model (HBM) framework through motivational interviewing, A Health Belief Model-Based Motivational Interviewing for Medication Adherence and Treatment Success in Pulmonary Tuberculosis Patients, demonstrated that motivational enhancement grounded in HBM principles significantly improves adherence and treatment outcomes. This approach helps individuals and families recognize their perceived susceptibility and benefits, reduce perceived barriers, and strengthen cues to action. The present study's findings align with this theoretical perspective: families possess intrinsic motivation but require accurate perception and structured communication to translate motivation into consistent adherence [17].

Taken together, the findings across these studies suggest that family perception and motivation are interdependent yet distinct constructs. Negative perceptions, influenced by misinformation, stigma, and low self-efficacy, can coexist with high motivation driven by emotional commitment and social obligation. Thus, interventions targeting TB prevention should not only disseminate information but also foster motivation through culturally sensitive

education, family counseling, and participatory engagement. Nurses and community health workers should adopt approaches that blend the cognitive and emotional dimensions of care, helping families move from awareness to action through sustained guidance and trust-based relationships.

## CONCLUSION

This study found that while most families (66.7%) demonstrated high motivation to support tuberculosis (TB) preventive therapy, more than half (52.8%) still held negative perceptions of it. This contrast indicates that motivation alone does not guarantee active participation; limited knowledge, cultural beliefs, and perceived barriers continue to hinder adherence. Strengthening perception through targeted education and effective communication is therefore essential to transform motivation into sustainable preventive behavior.

It is recommended that primary healthcare centers and community health workers enhance family-centered health education focusing on the benefits, safety, and importance of TB preventive therapy. Consistent counseling, culturally sensitive messaging, and collaboration between nurses, families, and local health programs are vital to improving both perception and motivation, thereby accelerating the success of TB prevention initiatives at the community level.

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