

Original Article

Unveiling Usage Patterns : Nikshay Poshan Yojana Scheme among Tuberculosis Patients at Vijayapura District Hospital — A Cross-Sectional Study

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Abstract

Background : Tuberculosis (TB) remains a global health concern with significant morbidity and mortality impacting populations worldwide. Tuberculosis and nutrition are intricately linked, To address this, GOI has initiated a program known as "Nikshay Poshan Yojana" to enhance the nutritional practice of tuberculosis patients, April, 2018, to offer a monthly financial incentive of INR 500 to all TB patients throughout the course of their treatment. This study seeks to evaluate the number of patients who have received benefits from the scheme and also to assess the utilization of the incentive.

Materials and Methods : A descriptive study was conducted from October 2023 to January 2024, involving 320 Tuberculosis patients registered in the Nikshay portal between July and September 2023. Following institutional ethical clearance, data collection was carried out using the interview method during home visits. by a semi-structured questionnaire. Data was analyzed using SPSSV26.

Results : Of 266 Participants, most were male (68.7%), primarily aged 26-40 years (45.8%). Among participants, 20% received full financial incentives, and 28% received partial incentives, with diverse utilization patterns observed. Reasons for not receiving incentives included lack of awareness (16%), no bank account (50%), and perceived lack of necessity (34%).

Conclusion : The study reveals challenges in participant dynamics and incentive distribution, emphasizing the need for proactive outreach and tailored strategies to address barriers effectively.

Key words : Tuberculosis Patients, Nikshay Poshan Yojana, Nutritional Demand.

Tuberculosis remains a global health concern, with significant morbidity and mortality impacting populations worldwide¹. In 2022, an alarming 1.3 million lives were lost to TB, among which 1,67,000 deaths occurred among individuals co-infected with HIV. The burden of TB was particularly pronounced in the World Health Organization's (WHO) South-east Asian Region, where 46% of new cases were reported. Notably, more than two-thirds of this global total was concentrated in a group of eight countries, and India is one among these nations².

Tuberculosis and nutrition are intricately linked, with each influencing the other in a bi-directional relationship. Malnutrition has long been recognized as a risk factor for the development of tuberculosis, as it can weaken the immune system and make individuals more susceptible to infection. Conversely, tuberculosis

Editor's Comment :

- The study highlights the need for improved awareness and banking access to enhance the utilization of Nikshay Poshan Yojana benefits among TB patients.
- Strengthening outreach efforts and financial inclusion can optimize the scheme's impact on nutritional support.

can contribute to malnutrition through various mechanisms, including increased metabolic demands, reduced appetite and nutrient absorption issues^{3,4}.

The intersection of tuberculosis, unemployment and lack of income creates a challenging scenario, particularly in terms of affording proper nutrition. Individuals affected by tuberculosis often face financial strain due to treatment costs, loss of income, and the inability to work during illness. This can lead to a compromised ability to afford nutritious food, further exacerbating health challenges⁵.

To address this, Indian Government has initiated a program known as "Nikshay Poshan Yojana" (NPY) to enhance the nutritional practice of tuberculosis patients. Launched in April 2018, the scheme aims to offer a monthly financial incentive of INR 500 (approximately 7 USD) to all TB patients throughout the course of their treatment. This incentive is directly

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Received on : 28/03/2024

Accepted on : 27/07/2024

How to cite this article : Unveiling Usage Patterns : Nikshay Poshan Yojana Scheme among Tuberculosis Patients at Vijayapura District Hospital — A Cross-Sectional Study. Kavimalar T, Gudadinni MR, Yadavannavar MC, Nagendra A, Eariyaden F. *J Indian Med Assoc* 2025; **123**(4): 36-8.

credited to their bank accounts linked to Aadhar, using the Direct Benefit Transfer (DBT) mechanism^{6,7}.

In a bid to achieve the ambitious goal of eliminating tuberculosis in India by 2025, two years ahead of the set target, it is crucial to address the financial repercussions faced by individuals, particularly those in the reproductive age group, who are predominantly affected by tuberculosis. The average recovery period of three to four months poses a significant financial burden, making it challenging for economically disadvantaged individuals to meet their nutritional needs during this critical phase. Recognizing this challenge, the Government has introduced the Nikshay Poshan Yojana (NPY) scheme.

AIMS AND OBJECTIVES

- (1) To Determine the number of patients who have received benefits from the scheme.
- (2) To assess the utilization of the nutritional support program by individuals.

MATERIAL AND METHODS

A descriptive study was conducted from October, 2023 to January, 2024, involving 320 Tuberculosis patients registered in the Nikshay portal between July and September 2023. Secondary data were obtained from the District Tuberculosis Officer (DTO) in Vijayapura. Following institutional ethical clearance, data collection was carried out using the interview method during home visits. After obtaining consent from the participants, a semi-structured questionnaire was used for data collection.

The pre-tested questionnaire for patients comprised three sections. The initial section encompassed nine questions, focusing on socio-demographic characteristics, rest of the information like Nikshay ID, age, gender, clinical details like type of TB, and treatment start date was cross-checked from the secondary data available. The second section comprised six questions probing into the reasons for either receiving or not receiving benefits under NPY through DBT. The third section contained questions related to the utilization of nutrition incentives and patients' perceptions of NPY.

All Tuberculosis patients registered in the Nikshay portal within the Vijayapura district from July to September, 2023, who were willing to participate, are included in the study. The study excludes patients who did not provide consent and those who were not reachable even after two home visits.

Statistical Analysis :

Data was collected and entered in MS Excel. Data was analyzed using SPSS software V26. Data was presented using Tables, Charts, Figures in numbers, and Percentages.

RESULTS

Table 1 presents important demographic findings of the study population. The majority of participants were male (68.7%) with females comprising 31.3%. Regarding age distribution, the highest proportion fell within the 26-40 age range (45.8%), followed by 15-25 years (34.4%). Socio-economic status, as per the Modified BG Prasad Classification, demonstrated the highest representation from the lower class (26.3%), followed by the upper middle class (24.4%) and middle class (22.5%). Education levels varied, with primary education being the most prevalent (29%), followed by PUC (27.8%) and high school (19.1%).

Fig 1 illustrates the flow of study participants, with 137 completing treatment, 90 still undergoing treatment, and 14 deceased. Additionally, 40 participants were untraceable. Consequently, those deceased and untraceable were excluded from the study. The distribution of incentives among study participants: 54 (20%) received the incentive, 137 (52%) did not receive any incentive, and 75 (28%) received a partial incentive. The 129 participants who received financial incentives, the utilization patterns varied significantly. Notably, 26.1% directed the incentives towards nutritional needs, while 41.8% allocated the funds for family-related expenses. Additionally, 29.4% utilized the incentives for personal purposes, and a smaller

Table 1 — Socio-demographic details of the study Participants

Gender distribution		n (%)
Sex	Male	183 (68.7%)
	Female	83 (31.3%)
Age	<15	42 (15.7%)
	15-25	91 (34.4%)
	26-40	122 (45.8%)
	>40	11 (4.1%)
Socio-economic Status (According to Modified BG Prasad Classification)		
	Upper Class	46 (17.3%)
	Upper Middle Class	65 (24.4%)
	Middle Class	60 (22.5%)
	Lower Middle Class	25 (9.4%)
	Lower Class	70 (26.3%)
Education status	Illiterate	37 (14%)
	Primary Education	77 (29%)
	High School	51 (19.1%)
	PUC	74 (27.8%)
	Graduate	27 (10.1%)

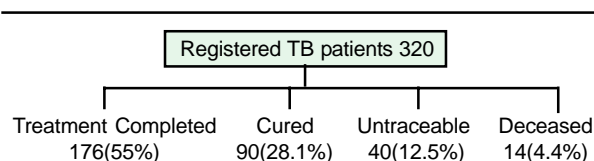


Fig 1 — Flow of Study Participants

percentage, 8.5%, applied the funds for other unspecified needs. The 137 participants who did not receive financial incentives, reasons include 16% (22 participants) being unaware, 50% (69 participants) lacking a bank account, 11%(15) did not know whom to enquire regarding this, and 23% (31 participants) indicating that they did not need the incentive.

DISCUSSION

Tuberculosis remains a critical public health challenge in India, with the nation committing to its eradication by 2025, ahead of the global Sustainable Development Goals target of 2030⁸. This study revealed a higher prevalence of tuberculosis among males 68.7%, aligning with findings from studies by Katherine C. Horton, *et al*⁹ and Jarina Begum, *et al*⁴ which reported 63.8% of males were affected. The majority of patients were from the lower class (26.3%) and upper-middle class (24.4%), according to the modified BG Prasad classification. Corroborating research by M Muniyandi, *et al*¹⁰ highlighted significantly higher TB prevalence in lower socio-economic groups, emphasizing the disproportionate impact on the poor. This underscores tuberculosis as a persistent concern among the underserved.

As per the findings of this study, 129 participants (48%) received either full or partial incentives, similar to Rajesh Kumar, *et al*, who reported that 52.6% received the Nikshay Poshan Yojana (NPY) for two months⁶. In this study, a majority of beneficiaries 69(50%) lacked a bank account, and 11% did not know whom to enquire, mirroring findings from studies by Rajesh Kumar, *et al*⁶ and Suraj Prakash, *et al*¹¹, where 21 individuals did not enroll due to lack of information, time, or a bank account. This highlights the significance of raising awareness among TB patients about the financial benefits before enrolling in the program.

CONCLUSION

The study highlights the complexities of participant dynamics and incentive distribution within our research framework. Many participants did not receive financial incentives due to reasons like lack of awareness or

banking access. This underscores the need for proactive outreach and financial inclusion efforts to ensure fair participation. Moving ahead, improving participant engagement and administrative processes is vital to address such barriers effectively. Regular assessments of participant needs can guide more tailored incentive distribution, optimizing resource allocation and improving participant satisfaction.

Limitations :

- (1) The reliance on self-reported data introduces potential bias in the study's findings.
- (2) Generalizability may be limited as the research focuses on a specific district and time frame.

Funding : BLDE(DU) Shri BM Patil Medical College, Vijayapura, Karnataka.

Conflict of Interest : None

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