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Research Article

Awareness and Utilization of Ayushman Bharat Scheme Among Non-Medical Personnel in a Medical College Hospital in Bengaluru: A Cross-Sectional Study

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ABSTRACT

Background: Ayushman Bharat- Prime Minister's Jan Arogya Yojana (AB-PMJAY) aims to ensure financial security and improve access to specialized healthcare in India. However, gaps in awareness and utilization persist. This study assessed awareness, utilization and associated socio-demographic factors among non-medical personnel.

Methods: A cross-sectional study was carried out among 110 non-medical personnel in a medical college hospital in Bengaluru Rural District, Karnataka, from August to December 2025 using consecutive sampling. We used a pre-tested structured questionnaire as a data collection tool, which covered socio-demographic details, awareness, and utilization of AB-PMJAY. Awareness was scored and categorized as adequate ($\geq$ 50%) or inadequate ($<$ 50%). JAMOVI software version 2.7.17 was used to analyze data, such as descriptive statistics and Pearson's Chi-square test.

Results: The mean age of participants was 34.69 $\pm$ 10.17 years. 52.7% had adequate awareness of AB-PMJAY. Most participants had heard of the scheme and knew the eligibility criteria; knowledge of specific benefits, such as coverage amount, was limited. Although 66.4% reported possession of an AB-PMJAY card in their family, only 8.2% had utilized its services. No significant association between socio-demographic variables and awareness was found.

Conclusion: Awareness of AB-PMJAY was moderate, but utilization was low, indicating a significant awareness-utilization gap. Strengthening targeted information, education, and communication strategies is essential to improve effective utilization.

Keywords: Ayushman Bharat, Health insurance, Awareness, Health services accessibility, Healthcare utilization, India, Cross-sectional studies, Health knowledge, Attitudes, and Practices.

INTRODUCTION

Financial risk protection, which tries to keep households from experiencing catastrophic expenses in order to access quality healthcare, is an important component of universal health coverage (UHC) [1]. Expanding publicly financed health insurance is a key aim of the UHC by 2030, since out-of-pocket expenses have historically made up a substantial proportion of all medical spending in India [2].

Ayushman Bharat, one of the largest government-funded health insurance schemes in the world, was launched by India in 2018 and covers over 100 million low-income and vulnerable households with financial protection up to INR 5 lakh per family yearly for both secondary and tertiary level care. [3-5]. The scheme aims to reduce financial hardship and improve access to inpatient care, yet emerging studies show mixed impact on financial security and service usage, and few studies report limited reduction in catastrophic expenditure and no clear increase in inpatient utilization [2].

Awareness and understanding of AB PMJAY are critical prerequisites for enrolment and effective utilization [3,6]. Community-based studies across multiple states report moderate to high general awareness (approximately 65-90%) but consistently low utilization in many rural settings, with scheme usage ranging from about 1-3% in parts of Bihar, Tamil Nadu and Karnataka to around 33-53% in some better-performing districts[3,7-12].

Assessing non-medical hospital employees' awareness and usage of the services can assist in finding gaps and to arrive at focused interventions to improve the program's efficacy and coverage. Therefore, the purpose of the current study was to determine the variables associated with scheme awareness among non-medical staff at an academic hospital in rural Bengaluru, and to estimate the level of awareness and utilization of AB-PMJAY services.

MATERIALS AND METHODS

Study design and duration: A cross-sectional study (institution-based) done with 5 months duration from August 2025 to December 2025.

Study setting: A rural medical college and academic hospital in Bengaluru Rural District, Karnataka, India.

Study population: Non-medical personnel working in the hospital, including administrative staff, attendants, security personnel, housekeeping staff, technical staff, and other support staff. Inclusion and exclusion criteria: All non-medical personnel aged ≥ 18 years with at least six months of experience at the study setting and who consented to participation were included. Healthcare workers directly involved in patient care, including doctors, interns, teaching faculty, and nursing staff, and individuals who did not consent were excluded.

Cochran's formula for estimating a proportion was used to calculate the minimum sample size, assuming a confidence level as 95% (Z = 1.96), an expected prevalence of awareness of 65% based on a previous Karnataka-based cross-sectional research [9], and 9% allowable error. 108 participants were in the sample size obtained, which was rounded to 110. A consecutive sampling technique (non-probability sampling) was employed. The internal consistency of components of the tool was assessed using Cronbach's alpha, which was found to be 0.807, indicating acceptable reliability.

A pre-tested, structured questionnaire was administered through face-to-face interviews by the investigators. The questionnaire consisted of three sections: Section: A included socio-demographic details- age in completed years, gender, completed education, occupation, and socioeconomic status- Classified using Modified BG Prasad Criteria 2025[12]; Section: B assessed awareness of scheme- knowledge-related variables such as awareness of benefits, eligibility criteria, and application process; and Section: C usage of services of this scheme.

Awareness about the scheme was assessed by scoring 5 items covering key domains such as eligibility criteria, benefits, coverage amount and availability of cashless services. Correctly answering each item was then scored with one point and for each incorrectly answered item, zero point was given. Final awareness score of each participant ranged from 0 to 5.

Awareness scores were categorized based on a predefined cut-off. Participants who scored ≥ 50% of the total awareness score (3–5) were classified as having adequate awareness, while those scoring < 50% (score 0–2) were considered to have inadequate awareness.

Data was entered into a Microsoft Excel spreadsheet and reviewed for completeness and consistency before being analyzed. JAMOVI software version 2.7.17 was used to conduct statistical analysis [13]. The data were presented using descriptive statistics, which expressed continuous variables as means along with SD and categorical variables as frequencies along with percentages. The Chi-square test or Fisher's exact test, if appropriate, was used in inferential analysis to examine the relationship between socio-demographic variables and scheme awareness. A *p-value* of less than 0.05 indicated statistical significance.

The Institutional Ethics Committee provided ethical approval. Prior to data collection for this survey, we obtained informed consent. Confidentiality and anonymity were strictly ensured, and data were strictly used for research only.

Operational Definitions

Awareness about the scheme

Knowledge about key components of the scheme, including eligibility, benefits, coverage amount, and service utilization procedures.

Adequate awareness

A score of ≥ 50% on the awareness questionnaire.

Utilization of scheme

Self-reported use of AB-PMJAY services for hospitalization by the participant or their family members at least once.

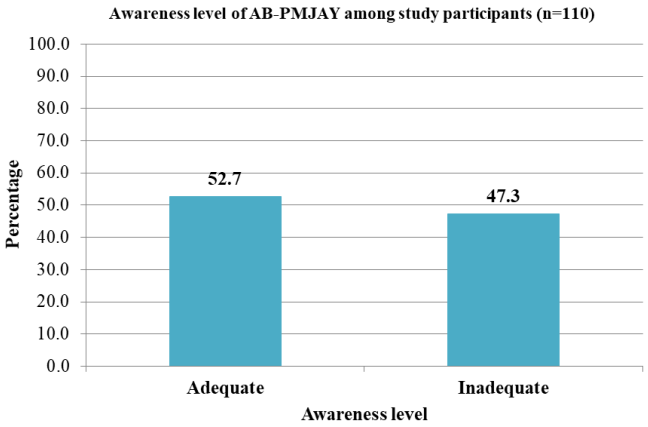

Figure 1: Awareness level of AB-PMJAY (n=110)

Table 1: Socio-demographic profile of study participants (n = 110)

Quantitative variable	*Mean and SD*	*SD*	*Median*
Age in years	34.69	10.17	32
Family size	4.86	2.61	4
Awareness score	2.48	1.55	3
Qualitative Variable	Category	n	%
Age group (years)	≤30 years	42	38.2
	>30 years	68	61.8
Gender	Male	58	52.7
	Female	52	47.3
Education status	Higher education	81	73.6
	Up to secondary	29	26.4
Occupation	Skilled/clerical/technical	67	60.9
	Unskilled/support staff	43	39.1
Residence	Urban	78	70.9
	Rural	32	29.1
Religion	Hindu	99	90.0
	Muslim, Christian & Jain	11	10.0
Family size	Small (1-4 members)	65	59.1
	Large (>4 members)	45	40.9
Socioeconomic status	Higher [Class I-II]	79	71.8
	Lower [Class III-V]	31	28.2

Table 2: Scheme-related variables among participants (n = 110)

Variable	*Category*	*n*	%
Heard of AB-PMJAY	Yes	84	76.4
	No	26	23.6
Heard about benefits	Yes	63	57.3
	No	47	42.7
Knows eligibility criteria	Yes	86	78.2
	No	24	21.8
Knows how to apply	Yes	67	60.9
	No	43	39.1
Knows ₹5 lakh coverage	Yes	48	43.6
	No	62	56.4
Family has an AB card	Yes	73	66.4
	No	37	33.6
Utilized AB-PMJAY	Yes	9	8.2
	No	101	91.8

Table 3: Awareness level of AB-PMJAY (n = 110)

Awareness level of AB-PMJAY	n	%
Adequate awareness (Score 3 to 5)	58	52.7
Inadequate awareness (Score 0 to 2)	52	47.3
Total	110	100

Non-medical personnel

Employees not directly involved in clinical care, including administrative and support staff.

RESULTS

The final analysis included 110 participants and had no missing data.

Table 1 presents the participants' socio-demographic profile. The majority (61.8%) of participants were older than 30 years, with slightly male predominance. Most (73.6%) participants had a higher education and 60.9% of them worked in skilled/ clerical/ technical fields. 70.9% of them lived in urban regions and 90% practiced Hinduism. A majority (59.1%) of the participants were from small families and (71.8%) had higher social and economic status.

The awareness and utilization profile of AB-PMJAY is presented in Table 2. A majority (76.4%) of participants had heard of the scheme and 78.2% were knows eligibility criteria. 57.3% were heard of the scheme's benefits and 60.9% knows application procedures. 43.6% knows that the coverage amount is INR 5 lakh. The majority (66.4%) reported that their family possessing AB-PMJAY card, the scheme's services were rarely (8.2%) used.

The distribution of awareness levels is presented in Table 3 and Figure 1. Slightly more than half (52.7%) of the study individuals were categorized as having adequate awareness, while the remaining participants had inadequate awareness of AB-PMJAY.

Table 4 shows the association between socio-demographic variables and AB-PMJAY awareness. Staff over 30 years old, with higher educational credentials, and working in skilled occupations did show comparatively higher awareness, but these findings were not statistically significant. There was a lack of statistical significance ($p > 0.05$) between awareness and demographic variables such as gender, location, family size, or socioeconomic status.

DISCUSSION

The current study surveyed the awareness and use of AB-PMJAY among non-medical personnel in a tertiary healthcare facility. The study's findings demonstrated a reasonable level of awareness (52.7%) but low utilization (8.2%), showing a knowledge gap versus actual service utilization. Even while several regions demonstrate moderate awareness, utilization remains below desired levels, indicating that systemic and access-related barriers exist, along with a lack of

Table 4: Association between socio-demographic variables and awareness of AB-PMJAY (N = 110)

Variable	*Category*	*Adequate awareness n (%)*	*Inadequate awareness n (%)*	χ^2	*p-value*
Age group (years)	≤30	18 (42.9)	24 (57.1)	2.66	0.103
	>30	40 (58.8)	28 (41.2)		
Gender	Male	31 (53.4)	27 (46.6)	0.03	0.873
	Female	27 (51.9)	25 (48.1)		
Education	Up to secondary	13 (44.8)	16 (55.2)	0.99	0.321
	Higher education	45 (55.6)	36 (44.4)		
Occupation	Skilled/clerical/technical	39 (58.2)	28 (41.8)	2.07	0.151
	Unskilled/support	19 (44.2)	24 (55.8)		
Residence	Rural	16 (50.0)	16 (50.0)	0.14	0.714
	Urban	42 (53.8)	36 (46.2)		
Type of family	Small	36 (55.4)	29 (44.6)	0.45	0.502
	Large	22 (48.9)	23 (51.1)		
Socioeconomic status	Higher SES	40 (50.6)	39 (49.4)	0.49	0.482
	Lower SES	18 (58.1)	13 (41.9)		

$p < 0.05$ is regarded as statistically significant.

Table 5: Comparison of awareness and utilization level of PM-JAY across selected studies in India

Study (Author, Year)	*Study Area / Setting*	*Awareness (%)*	*Utilization (%)*
Current study 2025	Karnataka (Bengaluru)	52.7	8.2
Sankar et al. 2025[4]	Rural Puducherry	71.5	2.03
Fernandez et al. 2025[14]	Bishnupur district	66.2	37.9
Sabherwal et.al. 2024[15]	Uttar pradesh	54.4	29.5
Girish et al. 2023[9]	Karnataka (Chamarajanagar)	68.0	3.1
Thomas et al. 2023[3]	Gujarat	71.8	43.3

awareness. Table 5 shows a comparison of PM-JAY awareness and utilization levels across different studies in India.

Multiple studies across India have demonstrated that key socio-demographic variables significantly influence awareness of AB-PMJAY. In rural Puducherry, age, educational status, and occupation were identified as significant predictors of higher knowledge levels[4]. Similarly, a study from rural Meerut reported significantly greater awareness among males, literate individuals, and those belonging to a higher socioeconomic class [16]. In contrast, findings from Mysuru indicated that lower-income groups had higher awareness, possibly reflecting effective targeting of economically vulnerable populations through outreach strategies [17]. Also, results from multiple studies frequently establish the significance of literacy, socioeconomic class, and exposure to health workers or awareness campaigns in determining awareness and utilization of public health insurance programs [2, 3, 8, 7].

CONCLUSION

Awareness of AB-PMJAY among non-medical personnel was moderate; however, utilization remained low, indicating a significant gap between awareness and actual service use. An incomplete understanding of scheme benefits and procedural aspects appears to hinder effective utilization.

RECOMMENDATIONS

It is necessary to strengthen targeted communication (IEC) efforts within healthcare institutions to improve comprehensive awareness of AB-PMJAY among non-medical personnel. Regular orientation sessions, awareness campaigns at workplaces, and display of simplified infographics may help bridge knowledge gaps, particularly regarding scheme benefits and procedures. Improving access to information on impaneled hospitals and claim processes may further enhance utilization. Integrating such interventions at the institutional level could facilitate more effective uptake of AB-PMJAY services.

STRENGTHS

This study focuses on an underexplored group within the healthcare system and employs a structured and reliable tool to assess awareness and utilization.

LIMITATIONS

Being a cross-sectional study, causal relationships cannot be established. The use of non-probability sampling may reduce the generalizability of findings.

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CONFLICTS OF INTEREST

There are no potential conflicts of interest.

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