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Original Research Article

AWARENESS AND UTILIZATION OF AYUSHMAN BHARAT PRADHAN MANTRI JAN AROGYA YOJANA (AB-PMJAY) AMONG URBAN AND RURAL RESIDENTS OF KOLAR DISTRICT

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ABSTRACT

Background: AB-PMJAY is currently the largest publicly funded health insurance scheme in the world, which aims to enhance access to secondary and tertiary health care as well as to decrease out-of-pocket expenditure. The scheme is in place nationally since 2018, but the evidences show that there are gaps in awareness and actual utilization at community level. Knowledge of these gaps will not only help to fix implementation of the scheme but will also allow for the expansion of the coverage to fulfil the goal of Universal Health coverage.

Material and Methods: We carried out a community-based cross-sectional study among adults aged at least 18 years residing in urban and rural field practice areas attached to a Kolar district medical college in Karnataka. Participants included in the study were drawn from a simple random sampling. Data were collected in the form of self-administered semi-structured questionnaire on socio-demographic characteristics, awareness about AB-PMJAY and utilization of services under PMJAY through face-to-face interviews. Data were entered in Excel and analysed using SPSS version 22. Univariate analysis was performed to generate descriptive statistics for awareness and utilization and associations were assessed using relevant statistical tests.

Results: Most of the study participants knew about the AB-PMJAY scheme yet the usage of services available under PM-JAY was relatively low. The difference in awareness status according to sociodemographic characteristics like residence, educational status, ration card type was significant. Although the participants expressed awareness regarding the advantages of scheme, many of them reported barriers in utilization, such as lack of knowledge regarding procedural flow, unavailability of empanelled facilities and perceived complexity of service availment. Differences in awareness and utilization patterns were also found in urban–rural comparisons.

Conclusion: The knowledge of AB-PMJAY was reasonably good amongst community residents, but its program usage was still low. Strengthening information dissemination to benefit the community as well as improve beneficiary facilitation by frontline health workers, proper coordination between frontline health workers and the registered health facilities can bridge the gap between awareness and utilization. Filling these gaps is therefore critical to harnessing the full potential of AB-PMJAY, and moving India closer towards achieving universal health coverage.

Keywords: Ayushman Bharat, PM-JAY, Awareness, Utilization, Publicly funded health insurance, Universal health coverage, India.

INTRODUCTION

Universal Health Coverage (UHC), defined as access to quality health services without financial hardship, is one of the global health policy's most prominent ambitions and a significant target of the Sustainable Development Goals. Inadequate public health financing over years, poor access to services and over-dependence on out-of-pocket expenditure (OOPE) have continued to pose persistent challenges to Universal Health Coverage (UHC) in many low- and middle-income countries.[1,2] India being the only country where OOPE accounts for more than 50% of total health expenditure, OOPE has always been shown to be associated with delayed care-seeking, catastrophic health expenditure, and increasing inequities.[3]

To address these systemic issues, the Government of India initiated the Ayushman Bharat Programme in 2018 as an integrated health system reform in India based on the National Health Policy 2017. The programme includes two linked initiatives — Health and Wellness Centres for the strengthening of comprehensive primary healthcare and the Pradhan Mantri Jan Arogya Yojana (PM-JAY), a publicly financed health insurance programme with financial protection against secondary and tertiary care hospitalisation.[4] PM-JAY aims to provide around 500 million economically vulnerable individuals in India with annual health coverage of 5 lakh INR per family making it the largest government funded health assurance scheme in the world.[5]

PM-JAY aimed to address the weaknesses of earlier publicly funded health insurance schemes in India like Rashtriya Swasthya Bima Yojana with improved eligibility, increased financial protection, and portability of benefits across empanelled public and private hospital in the country.[6,7] Empanelment of healthcare facilities is an important aspect which determines the effectiveness of the scheme with respect to the availability, accessibility and quality of the services. The evidence points to high inconsistencies between PM-JAY empaneled hospitals with high inter-state and rural–urban discrimination seen despite a large number of hospitals under PM-JAY.[8]

Evaluations of PM-JAY based on emerging evidence across Indian states provide a mixed picture on care utilisation and financial protection, despite the scheme being scaled up rapidly and with high enrolment. Few household-based and administrative data analyses have demonstrated even a modest reduction in OOPE and CHI — particularly for private sector care.[9-11] Subsequent work following the updates to the reimbursement package rates has also illustrated ongoing shortfalls between scheme enrolment and actual financial risk protection.[12]

However, awareness and utilisation of PM-JAY by intended beneficiaries are key to translating policy intent into population-level impact on health outcomes over and above financial aspects. Community based studies in various geographies in India have shown moderate levels of knowledge of PM-JAY, but consistently low availing of benefits of the scheme.[13,14] Underutilisation–the failure to use in a population offers which they are eligible for is particularly concerning in rural populations, lower educated individuals, and households who do not have sufficient contact with frontline health workers.[15]

Another critical factor that has emerged is awareness and readiness/training of healthcare providers to implement the scheme. Research among health care workers highlights mixed understanding of PM-JAY entitlements and logistics, where awareness was related to readiness to provide PM-JAY services.[16] The qualitative implementation research also points to the influence of organisation-level factors including capacity, leadership and governance arrangements, in creating state-level differences in performance of PM-JAY.[17]

Although it has great potential in certain areas like cancer care and high-cost tertiary interventions, PM-JAY has also faced limitations due to implementation challenges, indirect costs as well as barriers to access, especially in rural areas.[18] Collectively, the literature highlights the need for context-specific, community-level assessments of awareness and usage that can identify gaps and inform locally tailored interventions.

In this context, the current study was conducted to evaluate knowledge and utilisation of Ayushman Bharat Pradhan Mantri Jan Arogya Yojana among the population residing near urban and rural field practice areas of a medical college in Kolar district, Karnataka.

MATERIALS AND METHODS

Study design and setting

This was a community-based cross-sectional study carried out in the urban and rural field practition areas of Sri Devaraj Urs Medical College, Kolar district, Karnataka. Gandhi Nagar was the urban field practice area while the rural field practice area was at Devarayasamudra village. This district encompasses an area that routinely hosts teaching, training, and community-based research and is representative of both urban and rural populations.

Study duration

The study was conducted over a period of six months.

Study population

The study was conducted at urban and rural field practice areas of the Department of Community Medicine. The study population consisted of adult residents (those aged ≥18 years) in the chosen field practice areas during the time of the study.

Inclusion and exclusion criteria

All permanent residents aged 18 years and above who were available at the time of data collection and provided informed consent were included in the study. Households that were locked at the time of the

visit or individuals who were unwilling to participate were excluded.

Sample size estimation

The sample size was calculated using the formula for estimating a single proportion:

$$n=\frac{4pq}{d_2}$$

where p represents the prevalence of awareness of Ayushman Bharat PM-JAY (68.6%) reported in a previous community-based study, $q = 100 - p$, and d is the allowable error set at 5%. Based on this calculation, the minimum required sample size was 344 participants.

Sampling technique

Data collection tool and procedure

We employed a simple random sampling technique. The detailed household register was extracted from the corresponding primary health centres at Gandhi Nagar and Devarayasamudra. Each household was assigned a unique identification number, and households were selected from a random number sequencing generated by a computer. One qualifying adult per sampled household was interviewed.

A pretested semi-structured questionnaire was used for data collection through a face-to-face interview. The questionnaire covered the sociodemographic profile, awareness of Ayushman Bharat PM-JAY, knowledge of scheme benefits and coverage, registration and utilization of services under the scheme. When first testing the tool, a small number of participants outside of the study area participated to ensure sufficient testing, with modifications made as needed to make questions more clear or relevant.

Study variables

The two main outcome variables were awareness about Ayushman Bharat PM-JAY and access to benefits under the scheme. Age, sex, education, occupation, place of residence (urban/rural) and type of ration card

Data management and statistical analysis

We entered data into Microsoft Excel while analysed by SPSS info version 22 (IBM Corp., USA). Frequencies and percentages were used to summarize categorical variables, while continuous variables were presented by mean and standard deviation. The Chi-square test was employed to assess the associations between awareness/utilization of PM-JAY and selected sociodemographic variables, with p-value < 0.05 taken as statistically significant

Ethical considerations

The study was approved from the Institutional Ethics Committee of Sri Devaraj Urs Academy of Higher Education and Research, Kolar. All subjects provided written informed consent to participate in the study before any relevant data collection took place. The study was voluntary and anonymous, and data and study records were secured with access limited to study team members to protect participant confidentiality.

RESULTS

The study included 443 participants, out of which 226 (51.0%)were from urban field practice area (Gandhi Nagar) and 216 (49.0%) were from rural field practice area (Devarayasamudra).

Sociodemographic characteristics

Table 1: Sociodemographic profile of study participants by place of residence

Variable	Category	Urban (Gandhi Nagar) n=226	Rural (Devarayasamudra) n=216
Age	18–30 years	56 (24.8%)	63 (29.0%)
	31–45 years	68 (30.1%)	62 (28.6%)
	46–60 years	62 (27.4%)	55 (25.3%)
	≥61 years	40 (17.7%)	35 (16.1%)
Gender	Male	15 (6.6%)	16 (7.4%)
	Female	112 (49.6%)	114 (52.5%)
Education	Illiterate	48 (21.2%)	51 (23.5%)
	Primary school	20 (8.8%)	20 (9.2%)
	Middle school	28 (12.4%)	16 (7.4%)
	High school & above	130 (57.5%)	130 (60.2%)
Ration card	BPL card	163 (72.1%)	180 (82.9%)
	APL card	63 (27.9%)	37 (17.1%)

The sociodemographic profile of the study participants stratified by place of residence is found in Table 1. The age group with the highest percentage of participants was 31–45 years, followed by 46–60 years, for both urban and rural areas. In both settings, fewer subjects were aged ≥61 years. The urban area ratio was higher for females than for males and the same was held for the rural area. Approximately 55% of participants in both settings had high school education or more. Most participants had a Below-Poverty-Line (BPL) ration card, and this share was greater in the rural area than the urban area.

Awareness regarding Ayushman Bharat PM-JAY

Table 2: Awareness regarding Ayushman Bharat PM-JAY among study participants (n=443)

Variable	Yes n (%)	No n (%)
Heard about PM-JAY	213 (48.1%)	230 (51.9%)
Knows benefits of PM-JAY	78 (17.6%)	365 (82.4%)
Knows amount covered	55 (12.4%)	388 (87.6%)
Knows empanelled hospitals	78 (17.6%)	365 (82.4%)

Table 2 summarizes the overall awareness regarding Ayushman Bharat PM-JAY. Only 48.1% of them were aware of the PM-JAY scheme. Awareness at some domain of the scheme was poor; 17.6% of the participants reported to be aware of PM-JAY benefits, and 12.4% of them knew the benefit amount. Seventeen-point-six percent of participants had heard about the empanelled hospitals providing PM-JAY services.

Sources of information

Table 3: Sources of information regarding PM-JAY among aware participants (n=213)

Source	n (%)
Health workers / volunteers	150 (70.4%)
Newspaper	23 (10.8%)
Friends / family	18 (8.5%)
Television	13 (6.1%)
Pamphlets / posters	8 (3.8%)
Radio	1 (0.5%)

Information sources among participants aware of PM-JAY (n = 214) (Table 3). Health workers or volunteers (70.4%) were the most frequent source of information followed by newspapers (10.8%) and friends or family members (8.5%). Television, pamphlets or posters, and radio were cited less often as means of informing.

Registration and utilization of PM-JAY services

Table 4: Registration and utilization of Ayushman Bharat PM-JAY services (n=443)

Variable	Yes n (%)	No n (%)
Registered under PM-JAY	79 (17.8%)	364 (82.2%)
Registration process easy (among registered)	74 (93.7%)	5 (6.3%)
Utilized PM-JAY services	22 (5.0%)	421 (95.0%)

The table 4 shows registration status and use of PM-JAY services. Out of the participants, only 17.8% were registered under PM-JAY scheme. Of those registered, 93·7% reported that the process was easy. Only 5.0% of participants reported utilization of PM-JAY services, while 95.0% had not utilized PM-JAY services.

Perception regarding PM-JAY

Table 5: Perception regarding Ayushman Bharat PM-JAY among study participants (n=443)

Variable	Yes n (%)	No n (%)
Accessibility & availability	85 (19.2%)	358 (80.8%)
Reduced financial burden	77 (17.4%)	366 (82.6%)
Positive health impact	95 (21.4%)	348 (78.6%)
Satisfied with overall implementation	98 (22.1%)	345 (77.9%)

Perceptions of PM-JAY (Table 5) A little less than one-fifth recognized the role of PM-JAY in improving accessibility and availability of services (19.2%). Seventeen point four percent (17.4%) of respondents reported perceived reduction in financial burden, and 21.4% considered health benefit from the scheme. In total, 22.1% reported overall satisfaction with the implementation of PM-JAY.

Association between awareness and educational status

Table 6: Association between awareness of Ayushman Bharat PM-JAY and educational status (n=443)

Educational status	Aware n (%)	Not aware n (%)	χ^2	p-value
Illiterate	21 (21.2%)	78 (78.8%)		
Primary education	15 (37.5%)	25 (62.5%)		
Secondary education	75 (46.3%)	87 (53.7%)		
Higher education	102 (71.8%)	40 (28.2%)	65.45	<0.001

Table 6 indicates the relationship of awareness of PM-JAY with educational status. Knowledge of PM-JAY was also associated with higher education. Table 4 shows the association between background characteristics of the study population and awareness of PM-JAY in univariable analysis.

DISCUSSION

To assess awareness, uptake, and perceptions for Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (PM-JAY) among urban and rural residents of Kolar district. This indicates a significant disparity between awareness of the scheme and its uptake, and points to important implementation issues at the level of the community.

Despite years of universal roll-out of the scheme across the country, optimal community penetration seems to have not yet achieved as evidenced by less than half of the study participants had heard of PM-JAY. Community based evidence across multiple regions in India continues to show similar levels of awareness suggesting that limited awareness continues to be a bottleneck in achieving effective uptake of publicly funded health insurance schemes. The low levels of awareness noted in the current study may have arisen due to lack of information dissemination targeting these sectors of the population, especially given that PM-JAY is aimed primarily at socioeconomically disadvantaged groups.

So you still had to have a rather broad awareness of say PM-JAY, and even then it pivoted to basic awareness of what benefits were covered, what were the financial limits, which hospitals were on-boarded etc. Full or even partial, but very superficial, awareness as in the case here, in which the members are aware of the existence, but do not have working knowledge of the scheme, is well documented in previous studies. That fragmented awareness can be a huge hindrance in deciding when to ask for support and also in availing benefits under the scheme.

Among information sources about PM-JAY, health workers and community volunteers represented the most common source of information. It highlights the essential function of frontline health workers to convert health policy into activities at the community level. Parallel findings have been documented in other studies in India, where individual communication through health workers was found to be superior to mass media in raising awareness in high-risk population.[5] Hence, regular training and supportive supervision of frontline workers could strengthen their capacity which may, in turn, improve awareness and use of PM-JAY.

The present study had moderate level of awareness but the utilization of PM-JAY services was astonishingly low. This is consistent with findings from a few evaluations of publicly funded health insurance schemes in India that document low utilization and little effect on out-of-pocket expenditure.[8-10] The awareness–utilization gap observed here indicates that various other issues like structural and procedural barriers including poor registration process, unavailability of empanelled facilities, indirect costs and lack of facilitation at HCFs are inhibiting eligible beneficiaries from accessing services under the scheme.

These challenges are reflected in perceptions with respect to PM-JAY itself. Far fewer participants reported increased accessibility or financial protection, or improved health outcomes as a result of the scheme. Although PM-JAY holds promise in targeted clinical areas and tertiary care contexts, here we conclude that the potential gains from the scheme may not yet be realized at the community level. Adjusting features that facilitate effective functioning for beneficiaries, administration of empanelment processes, and coordination of care between primary care and empanelled hospitals could narrow this perception gap.

It was statistically significant that participants with higher educational status were more aware of PM-JAY compared to those with lower levels of education. These results are in line with previous literature along the lines of the effect of education on health literacy and the difference in access to information. This implies that focused information, education, and communication strategies aimed at those with lower educational achievement are critical to achieve equitable access to the benefits of the scheme.

CONCLUSION

In conclusion, the results of the current analysis highlight that financial protection schemes alone are not enough to deliver universal health coverage without community engagement, communication strategies, and health system readiness. The mismatch between policymaking and ground-level implementation continues to be of central importance in ensuring PM-JAY realises its full potential.

Strengths and limitations

Strengths of the present study include community-based design, inclusion of both urban and rural populations, and the principal basis of primary data collection through direct interview. However, the cross-sectional nature of the study does not allow setting the cause-and-effect relation. Self-reported data may be subject to recall bias. Also, discoveries of field practice locations may not be widespread.

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