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Evaluating the satisfaction level of PM-ABJAY among Maintenance Dialysis Kidney Patients at a Tertiary Care Centre

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ABSTRACT: Chronic Kidney Disease (CKD) and End-Stage Renal Disease (ESRD) are important health concerns in India, particularly because patients with advanced kidney disease often require long-term and expensive treatment such as haemodialysis, peritoneal dialysis, or kidney transplantation. The continuing cost of renal care can place considerable financial pressure on patients and their families and may result in high out-of-pocket expenditure and catastrophic health expenditure. To provide financial protection and improve access to healthcare, the Government of India introduced Ayushman Bharat–Pradhan Mantri Jan Arogya Yojana (PM-ABJAY), which provides cashless health coverage of up to ₹5 lakh per family per year for eligible beneficiaries requiring secondary and tertiary care. The scheme also covers several nephrology- and urology-related treatment packages. However, the availability of financial protection does not necessarily ensure its effective use. Patients may face difficulties when they have limited knowledge of their eligibility, available benefits, empanelled hospitals, treatment packages, or the procedures required to obtain services under the scheme. This study therefore aims to assess the awareness, accessibility, conceptual knowledge, and structural understanding of PM-ABJAY among kidney patients receiving tertiary healthcare services. The study further seeks to identify gaps in beneficiaries' understanding and access to the scheme and to generate evidence that may assist healthcare institutions and programme administrators in improving beneficiary communication, support mechanisms, and utilisation of available financial protection.

INTRODUCTION

Chronic Kidney Disease (CKD) is a major public health concern in India due to the increase in non-communicable diseases worldwide. If left untreated, significant stage 4 and 5 renal diseases lead straight to End-Stage Renal Disease (ESRD), which necessitates long-term renal replacement therapy (RRT), primarily maintenance haemodialysis, in order to maintain life (GBD Chronic Kidney Disease Collaboration, 2020). Haemodialysis is a costly burden for low- and middle-class households since it requires ongoing infrastructure and lifelong commitment (usually two to three sessions per week), putting vulnerable families at risk of catastrophic health expenditure (CHE) (Bradshaw et al., 2019).

The Indian government unveiled a historic financial protection plan in an effort to move closer to Universal Health Coverage (UHC): Ayushman Bharat's Pradhan Mantri Jan Arogya Yojana (PM-ABJAY). For secondary and tertiary hospital stays, PM-ABJAY provides a cashless insurance payout of up to ₹5 lakhs per family annually (Prinja et al., 2022).

But real-world implementation does not always follow from policy conception. Patient awareness and service accessibility are two essential components that determine this safety net's operational value (Parisi et al., 2023; Prinja et al., 2022).

Patients cannot take full advantage of their advantages if they are unaware of the card's financial limitations, the function of patient navigators (Ayushman Mitras), or the timetables for coverage (Parisi et al., 2023; Prinja et al., 2022).

Similarly, the card becomes functionally inaccessible if there are structural bottlenecks, such as significant travel distances to empanelled facilities, waiting lines for open computers, or administrative IT malfunction delays (Prinja et al., 2022).

Targeted empirical evidence tracing the intersections of system literacy and everyday physical access within high-frequency, life-critical populations like renal patients is still extremely rare, despite the fact that comprehensive community surveys look at general health insurance awareness (Parisi et al., 2023; Quazi et al., 2022). This research gap is directly addressed in this study.

LITERATURE REVIEW

The Financial and Clinical Burden of Kidney Pathology in India

The Financial and Clinical Burden of Kidney Pathology in India. The epidemiology of renal chronic illness in India is heavily intertwined with the rising prevalence of diabetes mellitus and hypertension. Studies consistently document that the ongoing costs of filtering therapies like maintenance hemodialysis function as a financial black hole for lower-to-middle income groups. Research by Ramasamy et al. (2026) highlights that even with varying degrees of state subsidy, the unexpected out-of-pocket costs for consumables, specialized drugs (like erythropoietin), and travel infrastructure routinely trigger financial distress. This underlines the desperate need for comprehensive institutional financial coverage like PM-ABJAY.

Financial Burden of CKD in India

Financially, CKD imposes a severe and often devastating cost burden on patients and their families, particularly for lower and middle-income groups. State subsidies, while available, provide only partial relief, often leaving critical expenses—such as consumables for dialysis, expensive medications like erythropoietin, and travel costs—to be covered out-of-pocket, triggering financial distress or catastrophic health expenditure (Nisar et al., 2024). The average direct medical costs reported for dialysis treatment in India approximate $6,344 per year per patient, which is considerable given the national income levels and is substantially lower than costs reported in more affluent Asian countries, yet remains largely unaffordable for the average Indian patient (Nisar et al., 2024).

Hemodialysis represents the largest direct cost driver, with average annual costs exceeding $23,000 in many settings, dominating over costs for disease management in earlier stages (Nisar et al., 2024). This enormous cost burden is compounded by widespread underdiagnosis and late presentation, which increase the likelihood of costly emergency care and hospitalizations (Galura and Pai, 2017; Stewart et al., 2024; Reddy et al., 2026).

General Public Awareness Gaps in PM-ABJAY

When assessing the public's understanding of the scheme, empirical evidence reveals significant disparities across different regions:

The Information Divide: Analyses of households across multiple states indicate that while national mass-media campaigns have led to a baseline recognition of the "Ayushman Bharat name" ranging from 60% to 75%, the depth of functional knowledge is alarmingly insufficient. For example, a community-based study by Prasad et al. demonstrated that although there was widespread awareness, the actual structural use of the scheme was limited to a small portion of those eligible, primarily due to administrative and logistical challenges.

Socio-Demographic Predictors: Consistent findings in recent healthcare studies, including those from rural Puducherry and Himachal Pradesh, show that higher education levels, urban living, and employment in organized sectors are strongly linked to greater awareness of the scheme. In contrast, the poorest, least educated, and most marginalized groups—the primary target audience of PM-ABJAY—display the least understanding of how to effectively access their benefits.

Barriers to Functional Literacy: The Technical vs. General Divide

Research featured in the Indian Journal of Public Health Research & Development examined the increasing digital obstacles related to health schemes. The literature differentiates between General Awareness (being aware of the scheme's existence) and Functional Literacy (understanding how to verify eligibility online, distinguishing between empanelled private and public hospitals, comprehending the function of Ayushman Mitras, and using the Ayushman Bharat Health Account / ABHA digital card). It is generally agreed that patients often encounter unexpected denials or end up paying out-of-pocket because they do not understand technical aspects, such as exclusions of diagnostic laboratories and specific pre-authorization timelines mandated by the transaction management modules.

Administrative and Digital Accessibility Challenges

The process of functional on-boarding can impede prompt access to healthcare services. To qualify for cashless treatment, patients are required to undergo real-time electronic verification via the Transaction Management System (TMS), overseen by a patient navigator (Ayushman Mitra). Academic studies extensively examine the "digital friction" encountered at this stage, which includes:Biometric authentication issues arising from worn fingerprints or inadequate data synchronization.

RESEARCH GAP

Even with the increased number of studies on public health insurance programs such as Ayushman Bharat and prior programs including RSBY, there are various research gaps that need to be filled in future studies on the subject. The most common studies in previous researches mainly involved descriptive analyses of the enrollment pattern and its challenges, implementation processes, and utilization results in a short period for various disease suffering patients. However, few studies have explored the long-term effects of the health insurance schemes, their sustainability and their equity implications across different socio-economic classes. Regional differences and disease specific in healthcare infrastructure together with the insurance programs are yet another under-researched aspect in low-resource areas. Thus, a comprehensive analysis consider in satisfaction accessibility, and quality of services needs to be conducted

Research Objective

To assess the satisfaction of patients receiving maintenance dialysis with dialysis-related services provided under the PM-ABJAY scheme at a tertiary care centre.

Methodology

Methodology is a critical stage in any investigation, since it lays the groundwork for whether the study can deliver reliable, meaningful findings. This chapter outlines the specific steps and procedures adopted to meet the study's objectives.

The central aim of this study is to identify the key factors shaping awareness, accessibility of Ayushman Bharat scheme among the selected population for specific dialysis Patients under study. Because the Ayushman Bharat framework is designed to be both accessible and responsive to beneficiaries' needs, and because different individuals engage with and understand such schemes in different ways, it was essential to assess whether the scheme's implementation is actually functioning as intended for the people it is meant to serve.

Design of the Study

The descriptive research design methodology was used for this particular investigation. For the purpose of gathering information from Anand research using a cross-sectional approach was carried out.

Sample Design

This study's universe was defined as all households in Anand that were Dialysis patients, recipients of Ayushman Bharat Scheme benefits. It is practically impossible to collect data from every single person in a group while undertaking research on that group. So, for researchers, the most important thing is to carefully choose a sample.. All program participants between February and March of year 2026 accounted for in the collected data

Data Sources

In order to achieve the comprehensive aims of the research project, information was gathered from a variety of primary and secondary sources.

A. Primary Data

The original data was acquired from a sample size of 100 Anand beneficiaries. The original data as well as the secondary data have been gathered from the different stakeholders. It was the hospitals that possessed the necessary information in addition to the medical records of the recipient. Within the scope of the data collection are all of the grantees who participated in the program throughout February and March of 2026.

Statistical Tools for Data Analysis

Statistical analysis is what transforms raw data into something meaningful — without it, collected data remains inert and uninterpreted. Reaching accurate, dependable conclusions depends entirely on selecting the right statistical tests for the job. Data analysis, broadly, refers to the process of identifying patterns, trends, and other meaningful insights within collected data.

For this study, the data was first examined using both descriptive and inferential statistical techniques. Descriptive statistics are measures used to characterize and summarize the relationships among variables within a population or sample; tools such as the mean, median, and mode provide a compact summary of the dataset's overall characteristics. Inferential statistics, by contrast, allow conclusions to be drawn about a broader population, using various tests to assess robustness and variability in the data (Tabachnick & Fidell, 2019).

All quantitative data gathered through beneficiary interviews was first recorded manually, then digitized and entered into a computer for analysis. The data was presented using measures such as the mean, median, dispersion, factor analysis, and structural equation modelling. Statistical tests applied included percentages, the Chi-square test, analysis of variance (ANOVA), mean and standard deviation, and the one-sample t-test. Simple percentages and averages were also calculated to make the findings easier to reference and interpret (Kline, 2023).

RESULTS AND DISCUSSION

Socio-Demographic Characteristics of the Study Participants

The socio-demographic profile of the 100 study participants is presented in Table 1. The sample consisted of 62% male and 38% female participants, indicating a higher representation of male beneficiaries. With respect to age, the largest proportion of respondents belonged to the 40–50-year age group (34%), followed by participants aged >40 years (32%), 50–60 years (20%), 60–70 years (12%), and those aged above 70 years (2%).

Regarding educational status, half of the respondents (50%) were illiterate, while 30% had higher-secondary education, 15% were graduates, and 5% had education above graduation level. This educational distribution is important when interpreting beneficiaries' perceptions of scheme-related communication and support services because differences in educational attainment may influence how individuals understand healthcare procedures and scheme information.

In terms of employment status, shop owners constituted the largest group (46%), followed by clerical workers (21%), skilled workers (13%), professionals (10%), semi-skilled workers (8%), and unemployed/unskilled workers (2%). With regard to annual income, 52% of participants reported an annual income of ₹1–2 lakh, 31% reported income below ₹1 lakh, and 17% reported income between ₹2–5 lakh. The majority of respondents were married (95%), while 3% were unmarried and 2% were divorced.

Table 1. Socio-Demographic Characteristics of the Study Participants

Variable	Category	N (%)
Gender	Male	62 (62%)
	Female	38 (38%)
Age	>40	32 (32%)
	40-50	34 (34%)
	50-60	20 (20%)
	60-70	12 (12%)
	70 above	2 (2%)

Education	lliterate	50 (50%)
	Higher_secondary	30(30%)
	Graduation	15 (15%)
	above Graduation	5 (5%)
Employment Status	Unemployed unskilled worker	2
	Semi-skilled worker	8
	Skilled worker	13
	Clerical	21
	Shop owner	46
	professional	10
Annual income	Below 1 Lank	31
	1 Lakh – 2 Lakh	52
	2 Lakh – 5 Lakh	17
Marital Status	Married	95
	UnMarried	3
	Divorsed	2

Satisfaction Level of PM-ABJAY Beneficiaries

The descriptive statistics for the nine satisfaction-related variables are presented in Table 2. All nine indicators had mean scores above 4.00 on the five-point satisfaction scale, indicating an overall favourable perception of PM-ABJAY-related healthcare services.

The highest mean score was observed for skills of paramedical staff (Mean = 4.22, SD = 0.746). This was followed by expertise of doctors (Mean = 4.20, SD = 0.725) and quality of services received at the hospital (Mean = 4.20, SD = 0.853). These findings suggest that beneficiaries particularly appreciated the competence of healthcare personnel and the quality of healthcare services received.

The mean score for fixed infrastructure of the hospital was 4.15 (SD = 0.770), while the availability of medical equipment/medicine received a mean of 4.14 (SD = 0.853). Support and information provided by the PMAM had a mean score of 4.11 (SD = 0.886), indicating generally favourable perceptions of support services.

The mean score for overall cleanliness in the hospital was 4.08 (SD = 0.872). The item concerning whether doctors followed all due medical procedures recorded a mean of 4.03 (SD = 0.881), while overall satisfaction with treatment under PM-ABJAY had a mean of 4.02 (SD = 0.943). Although these scores remain favourable, they represent the comparatively lower-rated dimensions and therefore indicate areas where further quality improvement may be beneficial.

The standard deviations ranged from 0.725 to 0.943, indicating moderate variation in respondents' perceptions. The relatively low SD for doctors' expertise suggests comparatively consistent responses regarding physician competence.

Table 2. Descriptive Statistics of Satisfaction Level among PM-ABJAY Beneficiaries

Descriptive Statistics	N	Minimum	Maximum	Mean	Std. Deviation
Fixed Infrastructure of the hospital	100	3.00	5.00	4.1500	.77035
Availability of medical equipment/medicine in the hospital	100	2.00	5.00	4.1400	.85304
Overall cleanliness in the hospital	100	2.00	5.00	4.0800	.87247
Expertise of the doctors	100	3.00	5.00	4.2000	.72474
Skills of paramedical staff	100	2.00	5.00	4.2200	.74644
Doctors followed all due medical procedures	100	2.00	5.00	4.0300	.88140
Quality of the services received at the hospital	100	2.00	5.00	4.2000	.85280
Support and information provided by the PMAM	100	2.00	5.00	4.1100	.88643
Your overall satisfaction with treatment PM-ABJAY	100	2.00	5.00	4.0200	.94259

Suitability of Data for Principal Component Analysis

Before extracting components, the adequacy of the correlation matrix was assessed using the Kaiser–Meyer–Olkin (KMO) measure and Bartlett's Test of Sphericity. The results are presented in Table 3.

The KMO value was 0.903, indicating a very high level of sampling adequacy. KMO evaluates whether the observed correlations are sufficiently compact to justify component/factor analysis; values closer to 1 indicate stronger adequacy.

Bartlett's Test of Sphericity was statistically significant, with $\chi^2 = 748.715$, df = 36, $p < .001$. Bartlett's test examines whether the correlation matrix differs significantly from an identity matrix. A significant result indicates that meaningful correlations exist among the variables and therefore dimensionality reduction is appropriate.

Thus, both KMO and Bartlett's test support the suitability of the nine satisfaction variables for PCA.

Table 3. KMO and Bartlett's Test of Sampling Adequacy

Test	Result	Interpretation
Kaiser–Meyer–Olkin (KMO)	**0.903**	Excellent sampling adequacy
Bartlett's Test of Sphericity – χ^2	**748.715**	Significant
Degree of Freedom (df)	**36**	—
Significance (p-value)	**< .001**	Correlation matrix is suitable for factor analysis

Measures of Sampling Adequacy

The individual Measures of Sampling Adequacy (MSA) obtained from the anti-image correlation matrix are presented in Table 4. The MSA values ranged from 0.803 to 0.942. The lowest value was observed for fixed infrastructure of the hospital (0.803), while the highest was observed for availability of medical equipment/medicine (0.942).

All nine variables demonstrated high individual sampling adequacy. Therefore, none of the variables required removal on the basis of their MSA values.

Table 4. Measures of Sampling Adequacy (MSA) Based on the Anti-Image Correlation Matrix

Variable	MSA
Fixed Infrastructure of the hospital	.803
Availability of medical equipment/medicine in the hospital	.942
Overall cleanliness in the hospital	.904
Expertise of the doctors	.912
Skills of paramedical staff	.934
Doctors followed all due medical procedures	.882
Quality of the services received at the hospital	.935
Support and information provided by the PMAM	.893
Your overall satisfaction with treatment PM-ABJAY	.892

Communalities

The extracted communalities are presented in Table 5. Communality represents the proportion of variance in an individual variable accounted for by the retained components. In PCA, communalities are obtained from the squared component loadings.

The extraction communalities ranged from 0.708 to 0.868. The highest communality was observed for overall satisfaction with PM-ABJAY treatment (0.868), followed by support and information provided by PMAM (0.830) and fixed infrastructure (0.818).

The lowest communality was observed for quality of services received at the hospital (0.708), which nevertheless indicates that approximately 70.8% of its variance is represented by the retained components. Overall, the values indicate that all nine variables are well represented by the two-component solution.

Table 5. Communalities of the Study Variables

Variable	Initial	Extraction
V_20_A_	1.000	.818
V_20_B__	1.000	.813
V_20___C_	1.000	.811
V_20_D_	1.000	.779
V_20_E_	1.000	.761
V_20_F__	1.000	.720
V_20_G_	1.000	.708
V_20_H_	1.000	.830
V_20_I__	1.000	.868

Extraction Method: Principal Component Analysis.

Total Variance Explained

The results of component extraction are presented in Table 6. Two components had eigenvalues greater than 1: Component 1 had an eigenvalue of 5.950, explaining 66.110% of the total variance, while Component 2 had an eigenvalue of 1.159, explaining an additional 12.874%.

Together, the two components explained 78.984% of the total variance. The remaining seven components had eigenvalues below 1 and therefore were not retained under the conventional Kaiser criterion.

The rotated solution redistributed the explained variance between the two components: after Varimax rotation, Component 1 accounted for 46.879% and Component 2 accounted for 32.105%, while the cumulative variance remained 78.984%. This redistribution is expected because Varimax rotation redistributes explained variance across retained components while preserving the total variance explained by the retained solution.

Table 6. Total Variance Explained by the Extracted Components

Component	Initial Eigenvalues Total	% of Variance	Cumulative %	Extraction Sums of Squared Loadings Total	% of Variance	Cumulative %	Rotation Sums of Squared Loadings Total	% of Variance	Cumulative %
1	5.950	66.110	66.110	5.950	66.110	66.110	4.219	46.879	46.879
2	1.159	12.874	78.984	1.159	12.874	78.984	2.889	32.105	78.984
3	.427	4.746	83.730						

4	.398	4.428	88.157						
5	.323	3.586	91.744						
6	.253	2.810	94.553						
7	.214	2.383	96.936						
8	.157	1.742	98.679						
9	.119	1.321	100.000						

Extraction Method: Principal Component Analysis.

Component Matrix

The unrotated component matrix is presented in Table 7. Component loadings represent the relationship between the observed variables and the extracted components.

Before rotation, most variables showed relatively strong positive loadings on Component 1. The highest loading was observed for overall satisfaction with PM-ABJAY treatment (0.876), followed by availability of medical equipment/medicine (0.869) and PMAM support (0.867).

Fixed infrastructure demonstrated loadings of 0.619 on Component 1 and 0.659 on Component 2, indicating that it was not clearly differentiated between the two components before rotation. Similarly, doctors' adherence to medical procedures had a secondary loading of 0.408 on Component 2.

Because the unrotated component solution did not provide a sufficiently clear conceptual separation of the variables, Varimax rotation was used to obtain a more interpretable component structure.

Table 7. Component Matrix of the Study Variables

Component	1	2
V_20_I__	.876	
V_20_B__	.869	
V_20_H_	.867	
V_20_D_	.849	
V_20___C_	.840	
V_20_G_	.812	
V_20_E_	.808	
V_20_F__	.744	.408
V_20_A_	.619	.659

Extraction Method: Principal Component Analysis. a. 2 components extracted.

Rotated Component Matrix

The Rotated Component Matrix is the key table for interpreting and naming the extracted components and is therefore presented in Table 8. Rotation facilitates a clearer structure by redistributing loadings across the retained components. Varimax is an orthogonal rotation method, meaning that the components are constrained to remain uncorrelated.

Following rotation, Factor/Component 1 was strongly associated with overall satisfaction with PM-ABJAY treatment (0.891), overall cleanliness (0.867), PMAM support (0.861), availability of medical equipment/medicine (0.839), and quality of services (0.781).

Factor/Component 2 was primarily associated with fixed infrastructure (0.899), doctors' adherence to medical procedures (0.774), skills of paramedical staff (0.748), and expertise of doctors (0.703).

Two variables demonstrated secondary loadings. Expertise of doctors loaded 0.534 on Component 1 and 0.703 on Component 2, while skills of paramedical staff loaded 0.448 on Component 1 and 0.748 on Component 2. In both cases, the primary loading is higher on Component 2, supporting their assignment to that component. Nevertheless, these cross-loadings should be acknowledged rather than described as completely absent.

Table 8. Rotated Component Matrix of the Study Variables

Component	1	2
V_20_I__	.891	
V_20___C_	.867	
V_20_H_	.861	
V_20_B__	.839	
V_20_G_	.781	
V_20_A_		.899
V_20_F__		.774
V_20_E_	.448	.748
V_20_D_	.534	.703

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 3 iterations.

Component Transformation Matrix

The component transformation matrix is presented in Table 9. This table represents the mathematical transformation used to obtain the rotated component solution from the original component solution. It is primarily a technical output of the Varimax rotation and does not normally require substantive interpretation in the Results and Discussion section. The important substantive interpretation comes from the rotated component matrix.

Table 9. Component Transformation Matrix

Component	1	2
1	.799	.601
2	-.601	.799

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

Rotated Factor Structure

Based on the pattern of the rotated loadings, the nine satisfaction variables can be grouped into two broad dimensions, as shown in Table 10.

Table 10. Rotated Factor Structure of Patient Satisfaction with PM-ABJAY Services

Factor	Variables	Interpretation
Factor 1	C, B, G, H, I	Hospital facilities, service quality, PMAM support, and overall patient satisfaction
Factor 2	A, D, E, F	Hospital infrastructure and professional competence of healthcare providers

Note: Variables D and E show minor cross-loadings but load more strongly on Factor 2.

Factor 1: Patient-Centred Service Quality and Satisfaction

Factor 1 is availability of medical equipment/medicine, overall cleanliness, quality of services, PMAM support and information, and overall satisfaction with PM-ABJAY treatment. Overall satisfaction with treatment (0.891), cleanliness (0.867), PMAM support (0.861), availability of equipment/medicine (0.839), and service quality (0.781) had the highest loading within this factor.

This combination suggests that Factor 1 reflects the beneficiary's first-hand experience of the delivery of hospital services and satisfaction. It is not only a measure of the availability of healthcare resources, but also of the perception of the service environment, support received and quality of care.

Therefore, this factor is appropriately named "Patient-Centred Service Quality and Satisfaction."

Factor 2: Healthcare Infrastructure and Professional Competence

The main components of Factor 2 are fixed hospital infrastructure, compliance with medical procedures, skills of paramedical staff and doctors' expertise. The loading of the fixed infrastructure was the highest (0.899), followed by adherence to medical procedures (0.774), paramedical staff skills (0.748), and doctors' expertise (0.703).

These variables together reflect the structural capacity and professional competence of healthcare providers. The factor thus represents the physical capacity of the hospital as well as the professional skills used in providing treatment.

Therefore, Factor 2 is referred to as "Healthcare Infrastructure and Professional Competence."

Table 11. Final Factor Naming and Interpretation

Factor	Variables	Recommended Name
Factor 1	Medical equipment, cleanliness, service quality, PMAM support, overall satisfaction	**Patient-Centred Service Quality and Satisfaction**
Factor 2	Hospital infrastructure, doctors' expertise, paramedical staff skills, adherence to medical procedures	**Healthcare Infrastructure and Professional Competence**

Anti-Image Covariance and Correlation Matrices

The detailed anti-image covariance matrix is presented in Table 12. This matrix provides the covariance relationships after accounting for the relationships among the other variables. While the complete matrix is useful as supporting statistical output, the diagonal elements of the corresponding anti-image correlation matrix are more directly relevant for assessing individual sampling adequacy.

Table 12. Anti-Image Covariance Matrix

	V_20_A_	**V_20_B_**	**V_20___C_**	**V_20_D_**	**V_20_E_**	**V_20_F_**	**V_20_G_**	**V_20_H_**	**V_20_I_**
V_20_A_	.421	.001	-.065	-.145	-.062	-.157	.031	.065	.030
V_20_B__	.001	.263	-.059	-.016	-.037	.001	-.103	-.043	-.018
V_20___C_	-.065	-.059	.251	.009	.002	.067	-.067	-.024	-.083
V_20_D_	-.145	-.016	.009	.289	-.097	.014	-.033	-.049	-.018
V_20_E_	-.062	-.037	.002	-.097	.350	-.106	.005	-.007	-.010
V_20_F__	-.157	.001	.067	.014	-.106	.401	-.068	-.056	-.018
V_20_G_	.031	-.103	-.067	-.033	.005	-.068	.365	.013	-.017
V_20_H_	.065	-.043	-.024	-.049	-.007	-.056	.013	.201	-.095
V_20_I__	.030	-.018	-.083	-.018	-.010	-.018	-.017	-.095	.175

The anti-image correlation matrix is presented in Table 13. The diagonal values correspond to the individual MSA values. As all diagonal values exceed 0.80, the nine variables demonstrate adequate individual sampling adequacy. This finding is

consistent with the overall KMO value of 0.903 and provides additional evidence that the variables are appropriate for inclusion in the PCA.

Table 13. Anti-Image Correlation Matrix

	V_20_A_	V_20_B_	V_20___C_	V_20_D_	V_20_E_	V_20_F_	V_20_G_	V_20_H_	V_20_I_
V_20_A_	.803a	.003	-.201	-.416	-.161	-.381	.080	.223	.112
V_20_B__	.003	.942a	-.230	-.058	-.122	.003	-.332	-.186	-.083
V_20___C_	-.201	-.230	.904a	.034	.008	.210	-.223	-.109	-.395
V_20_D_	-.416	-.058	.034	.912a	-.306	.042	-.101	-.202	-.081
V_20_E_	-.161	-.122	.008	-.306	.934a	-.283	.014	-.028	-.042
V_20_F__	-.381	.003	.210	.042	-.283	.882a	-.179	-.199	-.069
V_20_G_	.080	-.332	-.223	-.101	.014	-.179	.935a	.046	-.068
V_20_H_	.223	-.186	-.109	-.202	-.028	-.199	.046	.893a	-.505
V_20_I__	.112	-.083	-.395	-.081	-.042	-.069	-.068	-.505	.892a

a. Measures of Sampling Adequacy (MSA).

DISCUSSION

The present study revealed that the beneficiaries were very satisfied with the healthcare services provided by PM-ABJAY, with all the nine indicators having mean scores greater than 4.00. Beneficiaries were most satisfied with the skills of paramedical staff (4.22), doctors' expertise (4.20), and service quality (4.20). This is good news as the success of a publicly funded health insurance programme relies not only on financial coverage but also on the quality of services provided to the beneficiaries.

The results can be compared with the study conducted by Trivedi and Saxena (2022) on the experience of beneficiaries under PM-JAY and the significance of service delivery and the overall experience of hospitalization. The positive scores for doctors' expertise, skills of the paramedical staff and service quality in the current study indicate that the beneficiaries' experience of the care was positive. But, Parisi et al. (2023) found that there were still gaps in awareness and knowledge of PM-JAY among eligible populations. In a similar way, Yadav and Mohanty (2025) found awareness and implementation issues in Uttar Pradesh. Therefore, although beneficiaries who used the services in the current study were very satisfied, further efforts are needed to ensure that eligible households are well informed about the scheme and are able to benefit from it.

The PCA results further confirm that the satisfaction of the beneficiaries is multidimensional. The KMO value was 0.903 and Bartlett's Test of Sphericity was significant ($\chi^2 = 748.715$, $df = 36$, $p < .001$), indicating that the data were suitable for PCA. The two components explained 78.984% of the total variance, while communalities ranged from 0.708 to 0.868. The first component, Patient-Centred Service Quality and Satisfaction, was service quality, cleanliness, resource availability, PMAM support, and overall satisfaction. The second, Healthcare Infrastructure and Professional Competence, stood for infrastructure and competence of healthcare providers.

The primary loadings of doctors' expertise and paramedical staff skills were stronger on the second component, with cross-loadings. It is therefore conceptually and statistically justifiable that they are placed under professional competence. Nevertheless, the cross-loadings should be reported transparently.

The overall results suggest that the following factors are critical to ensuring beneficiary satisfaction: professional competence, adequate infrastructure, reliable medical resources, effective PMAM support, and patient-centred services. The relatively low

scores for procedural adherence and overall treatment satisfaction also suggest areas for ongoing quality monitoring. Additional reliability testing and, if applicable, CFA would support the proposed two-dimensional structure.

CONCLUSION

The analysis shows that the beneficiaries of PM-ABJAY were very satisfied with the healthcare services provided to them, especially the skills of the paramedical staff, doctors' expertise, and the quality of the services provided. The relatively lower scores for adherence to medical procedures and overall treatment satisfaction suggest that there is room for improvement. The PCA results provide evidence of a clear two-component structure. The first component, Patient-Centred Service Quality and Satisfaction, is the beneficiaries' perception of service quality, hospital environment, availability of resources, support from PMAM, and overall satisfaction with treatment. The second component is Healthcare Infrastructure and Professional Competence, which is hospital infrastructure and the professional competence of doctors and paramedical staff. The KMO value was 0.903 and the Bartlett's Test of Sphericity was significant ($\chi^2 = 748.715$, $df = 36$, $p < .001$), indicating that the analysis was statistically adequate. The individual sampling adequacy for all nine variables was satisfactory, and the communalities were good, with the two retained components accounting for 78.984% of the total variance. In general, the results indicate that the satisfaction of the beneficiaries of PM-ABJAY is multidimensional and is influenced by patient-centred service experiences as well as the institutional and professional healthcare capacity. The results thus underscore the need to ensure proper infrastructure, medical resources, and improve the competence of healthcare providers, communication, PMAM support, adherence to procedures, cleanliness, and service delivery to patients.

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