

Original Research Article

Assessing the knowledge, attitudes and practices of ASHA workers towards the Ayushman Bhava Initiative in Western Gujarat: a mixed-methods study

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ABSTRACT

Background: The Ayushman Bhav initiative, launched by India's government, represents a pioneering approach to holistic healthcare delivery. This study evaluated the knowledge, attitudes, and practices (KAP) of Accredited Social Health Activists (ASHAs) regarding this initiative in Western Gujarat.

Methods: A mixed-methods study engaged 170 ASHA workers through structured questionnaires and 12 focus group discussions (8 participants each). The questionnaire assessed socio-demographic characteristics and KAP dimensions; logistic regression examined associations between socio-demographic factors and knowledge levels. Qualitative data underwent thematic analysis.

Results: Fifty-seven percent of ASHAs accurately understood the initiative's core aim, though specific knowledge gaps persisted; 51.2% had overall good knowledge. Attitudes were generally favourable, with 95.3% believing the initiative could improve patient care and 97% valuing communication. Self-reported practice was high across all domains, including information-sharing (95%) and active listening (84.7%). Higher education (AOR 3.79, 95% CI 1.49-9.63 for graduates), longer work experience, and higher income were significantly associated with good knowledge. Qualitative analysis identified three themes: Transformative potential versus implementation Reality, reflecting ASHAs' view of the initiative as paradigm-shifting despite ground-level challenges; structural tensions, highlighting resource-responsibility mismatches and knowledge-practice gaps; and evolution of Professional Identity, describing ASHAs' shift from health workers to community advocates.

Conclusions: The study reveals moderate knowledge, strongly positive attitudes, and high self-reported practice among ASHAs. These findings support targeted capacity-building, community engagement strategies, and policy interventions to bridge knowledge gaps and strengthen implementation of Ayushman Bhava through ASHAs.

Keywords: Ayushman bhava, ASHAs, Knowledge, Attitudes, Practices, Mixed-methods study

INTRODUCTION

The Ayushman Bhav initiative, launched by Government of India in September 2023, is a comprehensive campaign aimed at achieving saturation coverage of healthcare schemes at village level, ensuring that all services under Ayushman Arogya Mandirs (AAMs) reach every eligible beneficiary through intensive community outreach.¹⁻³

The campaign functions through three components: (1) Ayushman Aapke Dwar 3.0, door-to-door outreach for beneficiary identification, card verification, and ABHA ID creation; (2) Ayushman melas, weekly health fairs at Health and Wellness Centres offering screening, vaccination, and card distribution, with each week dedicated to a specific priority (maternal and child health, communicable disease, non-communicable disease, and

specialised services/health education); and (3) Ayushman Sabhas, village-level meetings for community engagement and feedback.¹

Since its launch, the campaign has achieved substantial national reach, generating over 4.4 crore Ayushman cards, organising over 1.1 lakh Ayushman Sabhas, and conducting nearly 13.8 lakh Health Melas by December 2023.¹

ASHAs are central to this initiative's implementation, serving as the primary link between the healthcare system and the community through mobilisation, household identification, health education, follow-up, and documentation. In Western Gujarat, ASHAs face unique geographic and cultural challenges that shape their effectiveness, making their KAP regarding Ayushman Bhava critical to implementation fidelity, community trust, service quality, and programme sustainability.⁴

Given the recent launch of the initiative, research on ASHAs' specific engagement with Ayushman Bhava remains limited, particularly in Western Gujarat. This study aimed to comprehensively assess ASHA workers' KAP regarding the Ayushman Bhava initiative using a mixed-methods approach, with the specific objectives of evaluating knowledge of the initiative's aims and components, assessing attitudes and perceived roles, examining self-reported practices, identifying factors associated with knowledge levels, and exploring implementation challenges and facilitators through qualitative inquiry.

METHODS

Study design and setting

This was a mixed-methods study conducted among ASHA workers associated with AAMs in Western Gujarat, India, assessing their KAP regarding the Ayushman Bhava initiative.

Study period

Study carried out from February 2024 to April 2024.

Study population and sampling

We employed stratified random sampling to select ASHA workers affiliated with AAMs in Western Gujarat. A sampling frame of 430 active ASHA workers was obtained from district health authorities across districts and corporations. This list was stratified by urban-rural location and years of service, and 170 participants were selected using a computer-generated random number sequence. Sample size was calculated assuming 50% prevalence of good knowledge, a 95% confidence level, 5% margin of error, and 10% non-response rate. The final sample comprised 68 urban (40%) and 102 rural (60%) ASHAs.

Inclusion criteria

Currently active, accredited ASHA workers affiliated with an AAM in Western Gujarat, with a minimum of six months of active service, who were present at the health facility during the data collection period and provided written informed consent were included in study.

Exclusion criteria

ASHA workers on long-term leave (maternity, medical, or otherwise) during the study period, those newly appointed with less than six months of service, and those who declined consent or were unavailable despite two follow-up attempts excluded from study.

Data collection

Data were collected via face-to-face interviews using a structured questionnaire with four sections: socio-demographic characteristics; knowledge of the initiative's aims, components, and related concepts; attitudes towards its potential benefits and the importance of communication; and self-reported practices (explaining health information clearly, using appropriate language, active listening, summarising key points, and discussing patient preferences), each scored as Poor (1-2 occurrences), Good (3-4), or Excellent (>4) over a defined recall period.

Instrument development and validation

The KAP questionnaire was developed following a literature review and consultation with five subject-matter experts, using a two-round Delphi process (Content Validity Index 0.87). It underwent cognitive pretesting with 12 ASHA workers (excluded from the final sample), was translated into Gujarati with back-translation for linguistic equivalence, and showed acceptable internal consistency (Cronbach's alpha: 0.81 knowledge, 0.79 attitude, 0.83 practice). To minimise social desirability bias, interviews were conducted by research assistants unaffiliated with ASHA supervision, in private settings without supervisors present, using balanced (positive and negative) item framing, anonymised coding, and specific behavioural recall windows.

Qualitative data collection

Twelve focus group discussions (8 participants each) were conducted in Gujarati at Primary Health Centres by two trained facilitators (YM, NP) using a semi-structured guide covering all three components of Ayushman Bhava. Discussions lasted 60-90 minutes, were audio-recorded with consent, transcribed verbatim, translated into English with back-translation for quality assurance, and analysed thematically. FGD composition was stratified by knowledge level, work experience, and urban/rural location to ensure representation, and data collection continued until thematic saturation was confirmed.

Operational definitions

ASHA workers answering at least six of eight knowledge questions correctly were classified as having "good knowledge"; five or fewer correct answers indicated "poor knowledge." Attitude statements were rated on a five-point Likert scale; for positively framed items, "Strongly Agree/Agree" indicated a positive attitude, while for the one negatively framed item this was reversed. Neutral responses were classified as negative attitude.

Data analysis

Quantitative data were analysed using SPSS version 26.0. Descriptive statistics summarised socio-demographic and KAP responses. Logistic regression was used to identify factors associated with good knowledge, as the outcome was binary; variables with $p < 0.25$ on bivariate analysis were entered into multivariate model built by hierarchical backward elimination, retaining variables with $p < 0.05$. Multicollinearity was assessed using variance inflation factors (all < 2.5), and adjusted odds ratios are reported with 95% confidence intervals. Qualitative data were analysed independently by three researchers using an inductive thematic analysis approach following Braun and Clarke's six-phase framework, supported by NVivo 12 software, with inter-coder comparison, member checking, and peer debriefing to ensure rigour.

Ethical considerations

The study protocol was approved by the Institutional Ethics Committee, Shri M.P. Shah Government Medical College, Jamnagar (REF-250/03/2023), and conducted per the Declaration of Helsinki. Written informed consent was obtained from all participants in the vernacular language, and confidentiality and anonymity were maintained throughout.

RESULTS

Table 1 presents the socio-demographic profile of the 170 ASHA workers. Most respondents were aged 26-33 years (35.9%) or 34-40 years (31.8%); 37% had 4-7 years of work experience. Over half (52.4%) had secondary education, and 90% were married. Most (61.2%) earned Rs 20,000-30,000 per month.

Table 2 shows that 57% of respondents correctly identified the aim of Ayushman Bhava, while 38.2% knew the meaning of "Ayushman" and 52.4% correctly

identified its evidence-based focus. About half (51.2%) knew number of campaign components, and 93.5% were aware of the Saturday activities at AAMs; however, only 33.5% could correctly sequence week-wise Arogya mela subjects. Regarding ABHA ID and Ayushman/PMJAY card significance, 53% and 50% responded correctly, respectively. Overall, 87 (51.2%) ASHAs were classified as having "good knowledge" and 83 (48.8%) as having "poor knowledge."

Table 3 shows generally positive attitudes: 95.3% believed Ayushman Bhava could improve patient care, 88.8% agreed that spending more time with patients builds trust, and 76.5% felt its principles should be shared through community education. Ninety-seven percent valued easy communication for patient satisfaction.

Table 4 shows high self-reported practice scores: 95% reported excellent use of pictorial aids, 80.6% excellent use of local-language explanation, 84.7% excellent active listening, and 93% excellent use of counselling checklists and incorporation of patient preferences.

Table 5 presents factors associated with good knowledge on multivariate logistic regression. ASHAs with more than 7 years of experience had higher odds of good knowledge than those with under 1 year (AOR 2.57, 95% CI 1.06-6.24). Graduates had markedly higher odds than those with only primary education (AOR 3.79, 95% CI 1.49-9.63), as did those earning more than Rs 30,000 per month compared with the lowest income group (AOR 3.72, 95% CI 2.07-6.94). Rural residence was associated with lower odds of good knowledge (AOR 0.57, 95% CI 0.42-0.77).

Table 6 summarises qualitative findings across 3 major themes. First, "transformative potential versus implementation reality," captured ASHAs' view of initiative as a paradigm shift in healthcare delivery, tempered by tension between idealistic goals and ground-level constraints, with ASHAs describing themselves as cultural mediators in community engagement. Second, "Structural tensions in implementation," highlighted a mismatch between institutional expectations and available resources, and a disconnect between theoretical training and field application. Third, "evolution of professional identity," captured a shift from basic health worker to community advocate, with communication emerging as a professional cornerstone. Two cross-cutting themes, systemic integration and cultural adaptation, underscored need for a comprehensive, contextually grounded approach to implementation.

Table 1: Socio-demographic characteristics of respondents, (n=170).

Variables	Category	N
Age (in years)	18-25	23 (13.5%)
	26-33	61 (35.9%)
	34-40	54 (31.8%)
	>40	32 (18.8%)

Continued.

Variables	Category	N
Working experience	<1 year	9 (5.3%)
	1-3 years	55 (32.4%)
	4-7 years	63 (37%)
	>7 years	43 (25.3%)
Education status	Primary	43 (25.3%)
	Secondary	89 (52.4%)
	Higher Secondary	29 (17%)
	Graduation	9 (5.3%)
Marital status	Unmarried	10 (10%)
	Married	160 (90%)
Income (per month, in INR)	<10,000	4 (2.35%)
	10,000-20,000	23 (13.53%)
	20,000-30,000	104 (61.18%)
	>30,000	39 (22.94%)

Table 2: Knowledge of Ayushman Bhava among ASHA workers, (n=170).

Knowledge items	Correct	Incorrect
Aim of Ayushman Bhav	97 (57%)	73 (43%)
Meaning of 'Ayushman'	65 (38.2%)	35 (61.8%)*
Evidence-based focus of Ayushman Bhav	89 (52.4%)	81 (47.6%)
Number of campaign components	87 (51.2%)	83 (48.8%)
Awareness of Saturday AAM activities	159 (93.5%)	11 (6.5%)
Week-wise Arogya Mela subject sequence	57 (33.5%)	113 (66.5%)
Use of ABHA ID	90 (53%)	80 (47%)
Significance of Ayushman/PMJAY card	85 (50%)	85 (50%)

*% as reported in original dataset.

Table 3: Attitude towards Ayushman Bhava among ASHA workers, (n=170).

Statements	Positive	Negative
Ayushman Bhava can help improve patient care	162 (95.3%)	8 (4.7%)
Spending more time with patients builds trust	151 (88.8%)	19 (11.2%)
Principles should be shared in community education	130 (76.5%)	40 (23.5%)
Active listening is not an ASHA role* (negative item)	107 (63%)	63 (37%)
Easy communication is critical to patient satisfaction	165 (97%)	5 (3%)

Table 4: Practice towards Ayushman Bhava among ASHA workers, (n=170).

Practice items	Poor	Good	Excellent
Use of pictorial aids (last month)	4 (5%)	4 (5%)	162 (95%)
Explained terms in local language (last 5 interactions)	29 (17%)	4 (2.4%)	137 (80.6%)
Documented beneficiary concerns (last 5 visits)	10 (5.9%)	16 (9.4%)	144 (84.7%)
Used Ayushman Bhav checklist (last 5 sessions)	3 (1.7%)	9 (5.3%)	158 (93%)
Incorporated beneficiary preferred timing (last week)	0 (0%)	12 (7%)	158 (93%)

*Poor (1-2 occurrences), Good (3-4), Excellent (>4).

Table 5: Association of socio-demographic characteristics with good knowledge of Ayushman Bhava.

Variables	Category	COR (95% CI)	AOR (95% CI)
Working experience	<1 year	1.00 (Ref)	1.00 (Ref)
	1-3 years	1.50 (0.65-3.46)	1.37 (0.58-3.24)
	4-7 years	2.33 (1.03-5.28)	2.01 (0.86-4.69)
	>7 years	3.00 (1.28-7.03)	2.57 (1.06-6.24)
Education status	Primary	1.00 (Ref)	1.00 (Ref)
	Secondary	1.52 (1.03-2.24)	1.39 (0.92-2.09)
	Higher secondary	2.46 (1.46-4.14)	2.11 (1.22-3.65)
	Graduation	4.62 (1.88-11.37)	3.79 (1.49-9.63)

Continued.

Variables	Category	COR (95% CI)	AOR (95% CI)
Residence	Urban	1.00 (Ref)	1.00 (Ref)
	Rural	0.51 (0.38-0.68)	0.57 (0.42-0.77)
Income (per month)	<10,000	1.00 (Ref)	1.00 (Ref)
	10,000-20,000	1.22 (1.08-2.14)	1.19 (0.97-1.99)
	20,000-30,000	2.26 (1.63-3.71)	2.00 (1.37-3.25)
	>30,000	4.02 (2.60-8.21)	3.72 (2.07-6.94)

*COR: Crude Odds Ratio; AOR: Adjusted Odds Ratio; CI: Confidence Interval; Ref: Reference category. Age and marital status were not retained in the final multivariate model.

Table 6: Qualitative findings: themes and subthemes.

Major themes	Subthemes	Supporting evidence	Implications
Transformative potential vs. implementation reality	Program vision; community engagement	"It focuses on treating the whole person, not just the illness"	Balance transformative goals with practical implementation support
Structural tensions in implementation	Resource-responsibility mismatch; knowledge-practice gap	"We need more resources to effectively implement"	Need for systemic resource alignment and practice-oriented training
Evolution of professional identity	Role transformation; communication as core identity	"As ASHA workers, we should advocate for Ayushman Bhava"	Reflects evolving ASHA role; supports enhanced communication training
Cross-cutting themes	Systemic integration; cultural adaptation	Recurrent across all themes	Calls for systems thinking and cultural competency in implementation

DISCUSSION

This study assessed the KAP of ASHA workers regarding the Ayushman Bhava initiative in Western Gujarat. Knowledge was moderate overall: while 57% correctly understood the initiative's aim, gaps persisted regarding the meaning of "Ayushman" (61.8% incorrect) and the number of campaign components (48.8% incorrect), consistent with previous literature highlighting the need for continuous training of healthcare workers on new initiatives.^{5,6} Notably, 26.5% of ASHAs conflated the initiative's aim with health insurance provision, suggesting possible confusion with Ayushman Bharat-PMJAY, while the low accuracy on week-wise Arogya Mela sequencing (33.5%) may reflect question complexity rather than a true knowledge gap, since general awareness of the Saturday activities was high (93.5%). These patterns point to specific areas where training and communication materials could be strengthened.

Attitudes were overwhelmingly positive, with the majority believing the initiative could improve patient care and valuing patient-centred communication, echoing the initiative's underlying philosophy.⁷ Most respondents also recognised the value of community education, suggesting ASHAs' potential as catalysts for community engagement.⁸

Self-reported practices were consistently high across all domains, suggesting ASHAs are well placed to implement patient-centred care.⁹ Higher education, longer work experience, and higher income were significantly

associated with good knowledge, while rural residence was associated with lower odds, consistent with prior work on socio-demographic determinants of health worker knowledge.^{10,11}

The qualitative findings contextualise these results: ASHAs viewed the initiative as transformative in principle but described a gap between institutional expectations and available resources, and between formal training and field application, echoing broader evidence on community health worker programmes.¹²⁻¹⁴ The evolution of ASHAs' professional identity, from basic health worker to community advocate, with communication as a defining feature, mirrors literature on role expansion among frontline health workers.

Policy and practice implications

These findings support the development of simplified, pictorial training materials in local languages to address specific knowledge gaps (particularly around week-wise Mela activities and campaign terminology), peer learning networks leveraging ASHAs with good knowledge, differentiated support for rural ASHAs, and standardised communication protocols for community engagement activities.

Limitations

The cross-sectional design precludes causal inference, and self-reported data may be subject to social desirability bias, potentially inflating practice scores. The

study was conducted in a specific geographic region, limiting generalisability to other contexts. Triangulation of self-reported practice with observational or supervisory data was not undertaken and would strengthen future research.

CONCLUSION

This study demonstrates moderate knowledge, strongly positive attitudes, and high self-reported practice among ASHA workers regarding the Ayushman Bhava initiative in Western Gujarat. Targeted educational interventions, capacity-building programmes, and community engagement strategies are needed to bridge knowledge gaps and strengthen implementation, with ASHA workers positioned as crucial catalysts in realising the initiative's vision of comprehensive, accessible healthcare.

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