ORIGINAL ARTICLE

Quality assessment of homebased postnatal care services provided by ASHA in Banda district, Bundelkhand region

Brajesh Kumar, Lal Divakar Singh, Mohd Maroof, Saurabh Tripathi, Shailendra Singh Chaudhary, Suneel Kumar Kaushal

Department of Community Medicine, Rani Durgavati Medical College, Banda, Uttar Pradesh

CORRESPONDING AUTHOR

Dr. Brajesh Kumar, Department Of Community Medicine, Rani Durgavati Medical College, Banda, Uttar Pradesh, 210001

Email: briz.kumar91@gmail.com

CITATION

Authors. Title. Indian J Comm Health. 2025;37(5):723-728. https://doi.org/10.47203/IJCH.2025.v37i05.014

ARTICLE CYCLE

Received: 26/05/2025; Accepted: 05/10/2025; Published: 31/10/2025

ABSTRACT

Background: Home-based postnatal care (PNC) is vital for maternal recovery and newborn health, aiding early development and preventing complications. The WHO highlights the importance of timely PNC, including health checks, breastfeeding support, immunization, and family planning. In rural India, particularly Banda district, Uttar Pradesh, PNC usage remains low due to cultural, infrastructural, and financial challenges. Government schemes like NHM, JSY, and HBNC, with ASHA support, aim to improve access. This study assesses PNC accessibility and effectiveness, highlighting the need for strengthened service delivery. **Aims and Objectives:** To assess the quality of homebased postnatal care services provided by ASHA in Banda district. **Methodology:** A community-based cross-sectional study was conducted in Banda district, Uttar Pradesh, from June 2023 to December 2024, among 300 postpartum women aged 18–45. Using NFHS-5 data, Mahuva Block was randomly selected. Data were collected via home visits using a semi-structured questionnaire. Eligible, consenting women were included; critically ill or unwilling participants were excluded. Ethical approval was obtained. **Results:** The study found most participants (84.33%) were aged 21–30 and predominantly Hindu (97.33%). Education varied, and decision-making was mostly patriarchal. Most lived in joint, lower-middle-class families. While 73% delivered at PHCs/Sub-centres, only 27.66% completed all PNC visits. ASHAs played key roles, but awareness gaps remained. **Conclusion:** The majority of beneficiaries were young women, primarily from Hindu joint families with modest socioeconomic backgrounds. Most gave birth at government health facilities, yet few completed all recommended postnatal care visits. While ASHA workers played a vital role in providing newborn care guidance, important areas like hand hygiene and health assessments were often overlooked.

KEYWORDS

Postnatal Care (PNC); Maternal Health; Newborn Health; Home-Based Newborn Care (HBNC); Accredited Social Health Activists (ASHAs); Service Delivery

INTRODUCTION

Postnatal care (PNC) is vital for the health of mothers and newborns, ensuring recovery and early development while preventing complications.(1) Timely PNC includes monitoring of health, breastfeeding support, family planning advice, and immunization, as emphasized by the World Health Organization (WHO).(1) Despite its importance, PNC utilization remains low in rural areas of India due to factors like socio-cultural beliefs, lack of awareness, poor healthcare infrastructure, and economic barriers.(2) National Family Health Surveys (NFHS-4 and NFHS-5) reveal significant disparities in PNC uptake between urban and rural areas, including Uttar Pradesh and Banda district.(3,4,5,)

Government programs like the National Health Mission (NHM), Janani Suraksha Yojana (JSY), and Home-Based Newborn Care (HBNC) aim to improve maternal and child health. Accredited Social Health Activists (ASHAs) play an important role in delivering PNC services by conducting home visits,

monitoring health, promoting breastfeeding, and offering immunizations. However, challenges such as limited resources and coverage persist.(6,7) Digital tools like "Kilkari" and "ANMOL" apps have been introduced to enhance service delivery.(8,9)

There are several programmes in India pertaining to health care system yet the maternal and neonatal mortality rates remain high. The lack of availability and accessibility of government services makes the target population more vulnerable. The percentage of mothers receiving postnatal care within two days of delivery increased from 62.4% in NFHS-4 (2015-16) to 78.0% in NFHS-5 (2019-21) in India, and from 49.2% to 73.7% in Banda.(10) Post natal care is important for survival, health & development of mother and newborn including physical, social and mental health therefore it is important to assess the utilization and its associated factors to promote better utilization of PNC services to improve the survival and health and development of the baby.

This study focuses on addressing quality of PNC utilization services in Banda district, aiming to improve access quality of PNC.

Aims and Objective: To assess the quality of homebased postnatal care services provided by ASHA in Banda district.

MATERIAL & METHODS

Study Design: A community-based cross-sectional study.

Study Population: All Postpartum women of age group 18 to 45 years.

Study Period: 1 June 2023 to 31 December 2024 (18 Months).

Study Area: The study is done in rural area of the Bundelkhand region of Banda district Uttar Pradesh.

Sample Size: Sample size calculation was done by using the formula

$N= Z^2PQ/L^2$

N represents the sample size, while Z is the Z-value, indicating the number of standard deviations from the mean based on the desired confidence level (e.g., Z = 1.96 for 95%). P is the estimated proportion, derived from NFHS-5 data, showing that 73.7% of mothers in Banda district received postnatal care within 2 days of delivery.(11) L denotes the acceptable margin of error (5%; 0.05), expressed as a proportion.

After putting the values in formula, minimum sample size is calculated as 298, For the study purpose, final sample size was taken as 300.

Method of Recruitment:

Inclusion Criteria-

1. Women who conceived and get delivered between June 2023 to December 2024.
2. Those who gave consent to participate in the study.

Exclusion Criteria-

1. Critically ill patient at the time of data collection.
2. Those who did not give the consent to participate in the study.
3. Those who did not available even after more than two attempts.

Methodology: The proposal preparation, questionnaire making and proposal submission done from June 2023 to August 2023, Ethical clearance and scientific review done in September 2023 to November 2023, from data collection to final compilation done from December 2023 to December 2024. Mahuva block was selected from all blocks of Banda district (Total block number = 8) by simple random technique (lottery method). Similarly, Mahuva PHC (Among Total 7 PHCs) was selected from all PHC of Mahuva block by simple random sampling (lottery method). After taking the permission of administration of Primary health Centre Mahuva, the medical records of the mothers who were enrolled for ANC was retrieved from the record department. The names and phone numbers of ASHA of villages were obtained from the administration of Primary Health Centre Mahuva and through call from ASHA information about post-natal mothers was obtained. Later on, After the pregnant women delivered their babies, visits were made to their homes. The mothers and ASHA (Accredited Social Health Activist) were each interviewed separately face-to-face using a different pre-designed, semi-structured questionnaire-one for mothers and another for ASHAs.(12) These interviews were conducted within 42 days of delivery for mothers, regardless of whether the delivery was normal or via caesarean. The study included all eligible delivered women fulfilling the inclusion and exclusion criteria until the desired sample size was attained. All the data collected was then compiled for analysis. All women (N=300) who delivered their baby during the period of January 2024 to December 2024 were taken into account for the present study. Those women who either did not gave their consent or were unavailable even after more than two attempts were excluded from the study. A final data of 300 women was collected and analysed in the present study. All the study participants were explained about the nature and purpose of the study. The privacy and confidentiality of the participants were maintained at the time of data collection.

Method of Data Collection: The scheduling method was used for data collection for this a pre designed

and semi-structured questionnaire was used. Study Parts: The proforma includes three parts, an PNC register. Part 1: General information including sociodemographic characteristics (age, religion, Caste, type of family, education, occupation, financial status, BPL card, and health insurance status.) Part 2: Knowledge of Accredited Social Health Activists (ASHAs) assessed through a questionnaire containing 15 questions. Each question focused on a key 37 area of their roles and responsibilities. For each correct answer, the ASHA earned 1 point, which reflected their understanding of the topic. Incorrect answers, on the other hand, didn't earn any points, ensuring a fair and straightforward scoring process. This evaluation method was consistently applied to a group of 96 ASHAs. Part 3: Assessment of quality of postnatal care services provided by ASHAs using a simple scoring system. This system looked at how often the services were delivered and categorized them as 'Always,' 'Sometimes,' or 'Never.' Each category was given a score: 2 points for 'Always,' 1 point for 'Sometimes,' and 0 for 'Never.' To get a full picture of the quality, we also observed the ASHAs while they carried out postnatal care procedures.

Ethical approval & Informed consent: Before interview, written informed consent was obtained from all participants. Ethical approval was taken from the institutional ethics committee at Rani Durgavati Medical college, Banda (IEC/RDMC/Cert/17).

RESULTS

Table 1: Most of beneficiary were belonging to 21–30 years age group which was 84.33% and predominantly Hindu (97.33%). Education levels vary, with 33% having completed Intermediate/Diploma and 25% finishing High School, but 7% are illiterate. Decision-making capacity was largely patriarchal, with fathers-in-law (62%) and husbands (31%) taking lead roles. Most of them belong to lower middle class and joint families which were 79.67% and 69.33% respectively Additionally, 33.67% of families hold BPL cards.

Table 2: The majority of deliveries (73%) took place at PHC/Sub-centres, with 15.33% at CHCs and 10.33% at higher-level facilities, while only 1.34% delivered at home. When it comes to postnatal care, just 27.66% of women attended all scheduled visits, 37.34% went for some visits, and 35% didn't attend any postnatal visits.

Table 3: Most ASHAs consistently provided advice on key newborn care practices like breastfeeding (66.67%), temperature maintenance (74%), and recognizing danger signs (74.67%). About 76% educated mothers on identifying their own danger signs. However, only 12.67% explained the purpose of their visits, and just 2% knew the correct number of postnatal visits.

Gaps in practices included low adherence to hand hygiene (14.33%), temperature checks for mothers (3.33%) and newborns (28.66%), digital breath counting (12.67%), and newborn weighing (15%). Proper swaddling was done by 52% of ASHAs.

Table 1: Socioeconomic characteristics of beneficiaries (n=300)

Variables	Categories	Respondents	
		Count (N=300)	Percentage (%)
Age (Years)	<21	17	5.67
	21-30	253	84.33
	31-40	28	9.33
	>40	2	0.67
Religion	Hindu	292	97.33
	Muslim	8	2.67
Mother's Education status	Illiterate	21	7
	Primary School	57	19
	Middle School	35	11.67
	High School	75	25
	Intermediate/Diploma	99	33
	Graduate	11	3.67
	Professional Degree/Postgraduate	2	0.66
Decision-Maker	Self	0	0
	Husband	93	31
	Mother-in-law	21	7
	Father-in-law	186	62
Type of Family	Nuclear	88	29.33
	Joint	208	69.33
	Third generation	4	1.34

Social class*	Upper	4	1.33
	Upper Middle	8	2.67
	Middle	41	13.67
	Lower Middle	239	79.67
	Lower	8	2.67
BPL Card	Yes	101	33.67
	No	199	66.33

Table 2: Distribution of beneficiaries based on delivery place and number of postnatal visits (n=300)

Variables	**Categories**	**Respondents**	
		Count(N=300)	**Percentage (%)**
Delivery Place	Home	4	1.34
	PHC/ Sub-centre	219	73
	CHC	46	15.33
	DH/Medical College/Private	31	10.33
No. of postnatal visits	All visits as per schedule	83	27.66
	Partial visits done	112	37.34
	No visit	105	35

Table 3: Quality of postnatal care provided during home visits by ASHA(N=300)

S.N.	**SERVICES PROVIDED**	**Always**	**Sometimes**	**Never**
		(%)	**(%)**	**(%)**
1.	ASHA greet the family	98	170	32
		-32.67	-56.67	-10.66
2.	ASHA explains her visit purpose	38	60	202
		-12.67	-20	-67.33
3.	Do you know how many times ASHA has to visit home?	6	180	114
		-2	-60	-38
4.	ASHA washed her hands with soap and water before examination the baby	43	217	40
		-14.33	-72.33	-13.34
5.	Advices regarding Breastfeeding	200	82	18
		-66.67	-27.33	-6
6.	Does ASHA Counsel mother about Temperature maintenance of newborn?	222	53	25
		-74	-17.67	-8.33
7.	ASHA advices about Danger signs of newborn	224	55	21
		-74.67	-18.33	-7
8.	ASHA advices mother to recognize danger signs of newborn	224	55	21
		-74.67	-18.33	-7
9.	ASHA advices to recognize danger signs of mother	228	48	24
		-76	-16	-8
10.	ASHA advises on actions to take if danger signs are recognized in a newborn or mother	223	36	41
		-74.33	-12	-13.67
11.	ASHA inquired about your child's vaccinations for BCG, OPV, and Hepatitis B	261	30	9
		-87	-10	-3
12.	ASHA uses a digital watch to count breaths	38	191	71
		-12.67	-63.67	-23.66
13.	Weighing of the newborn	45	205	50
		-15	-68.33	-16.67
14.	Temperature measurement of the baby	28	58	214
		-9.33	-19.33	-71.34
15.	ASHA measures the mother's temperature	0	10	290
		0	-3.33	-96.67
16.	Swaddle a newborn baby properly	156	112	32
		-52	-37.33	-10.67
17.	ASHA examines the area around the umbilicus	16	118	166
		-5.34	-39.33	-55.33

DISCUSSION

In our study, most beneficiaries (84.33%) were aged 21–30 years, with smaller proportions aged 31–40 years (9.33%), under 21 years (5.67%), and over 40 years (0.67%). Similarly, Patel A. Anil (2022)(13) reported that 61.81% of postnatal mothers were aged 19–24 years, and Mahajan Niharika & Kaur Baljit (2021)(14) found that 84.3% of participants were aged 20–30 years. Regarding religion, 97.33% of beneficiaries identified as Hindu, and 2.67% as Muslim, consistent with findings from Chaurasiya K. Shailendra et al. (2020)(15), who reported 96.7% Hindus, and Kumar Santosh et al. (2024)(16), who found 71.3% Hindus among Recently Delivered Women (RDW).

In our study, 33% of beneficiaries had completed Intermediate or a Diploma, and 25% had finished High School, aligning with Grover Kashish et al. (2019)(17), where over 25% of postnatal mothers had senior secondary education and 22% completed high school. Similarly, Patel A. Anil (2022)(13) found 54.17% of postnatal mothers had high school or higher education.

In our study, 79.67% of beneficiaries were from the lower middle class, followed by 13.67% in the middle class. This aligns with Tiwari C. Harish and Gupta K. Sudhir (2017)(18), who found most rural women were from middle or lower-middle-class backgrounds, and Kumar Santosh et al. (2024)(16), reporting 78.8% of recently delivered women in the middle socioeconomic group.

In our study revealed that Primary Health Centres (PHCs) were the most common choice for delivery, with 73% (219 deliveries) occurring there. Community Health Centres (CHCs) accounted for 15.33% (46 deliveries), while 10.33% (31 deliveries) took place in other institutional settings such as district hospitals, medical colleges, and private hospitals. Only 1.34% (4 deliveries) happened at home, primarily due to traditional beliefs, negative attitudes toward hospitals, high-order parity, lack of awareness, and familial pressure in decision-making. Our findings were comparable with the finding of Mahajan Niharika, Kaur Baljit (2021)(14), found that 96% of rural women in Punjab opted for institutional deliveries, with a caesarean section rate of 37.6%. Similarly; Ajinkya Kothavale, Trupti Meher (2021)(19), reported that 85.5% of women delivered in healthcare centres, with 53.5% in public healthcare facilities and 32% in private hospitals.

In our study, only 27.66% of beneficiaries received all recommended postnatal visits, 37.34% attended partially, and 35% received none. Compared to Garg Samir et al. (2022)(20), where ASHAs ensured 74.1% of newborns received six visits, adherence here was notably lower. Similarly, Anuradha et al. (2022)(21) found ASHAs had strong theoretical knowledge (61.96% advocated for over three visits), yet practical implementation lagged. Pathak K. Pankaj et al. (2021)(22) reported better adherence to Home-Based Newborn Care (HBNC), with most newborns receiving all home visits

While most consistently advised mothers on breastfeeding (66.67%), temperature maintenance (74%), and danger signs (74.67%), practical implementation lagged. Only 12.67% explained their visit's purpose, and 2% knew the correct number of postnatal visits. Hand hygiene was followed by 14.33%, temperature checks for mothers were absent in 96.67% of cases, and 71.34% of newborns were not assessed. Comparatively, Rairker Bhanu Atul et al. (2019)(23) reported higher rates of newborn checks. Additionally, just 12.67% used digital watches for breath counting, with low adherence to visit schedules compared to other studies.

CONCLUSION

Most beneficiaries (84.33%) were young (21–30 years), predominantly Hindu (97.33%), and from joint families (69.33%), with 79.67% belonging to the lower middle class. While 73% of deliveries occurred at PHC/Sub-centres, adherence to postnatal visits was low, with only 27.66% completing all. ASHAs consistently advised on newborn care practices like breastfeeding (66.67%) and danger signs (74.67%), yet implementation gaps remained, such as poor hand hygiene (14.33%) and limited temperature and weight assessments for mothers and newborns.

RECOMMENDATION

To improve postnatal care, it's essential to focus on equipping ASHAs with practical training in key areas like hand hygiene, temperature checks, and breath counting. Regularly tracking their work and offering constructive feedback can help ensure they follow care guidelines effectively. Raising awareness among mothers about the importance of postnatal visits could boost attendance. Providing ASHAs with user-friendly tools for newborn assessments and fostering stronger partnerships with healthcare teams can make a big difference in the overall quality of maternal and newborn care.

RELEVANCE OF THE STUDY

This study is relevant as it evaluates the quality of home-based post-natal care services delivered by ASHA in Banda district, highlighting the gaps and

strength to improve maternal and child health outcomes in Bundelkhand region.

AUTHORS CONTRIBUTION

All authors have contributed equally.

FINANCIAL SUPPORT AND SPONSORSHIP

Nil

CONFLICT OF INTEREST

No

REFERENCES

1. World Health Organization. WHO technical consultation on postpartum and postnatal care [Internet]. Geneva: World Health Organization; 2010 [cited 2023 May 19]. Report No.: WHO/MPS/10.03. Available from: https://apps.who.int/iris/handle/10665/70432
2. Titaley CR, Dibley MJ, Agho K, Roberts CL, Hall J. Determinants of neonatal mortality in Indonesia. BMC Public Health. 2009; 9:67.
3. International Institute for Population Sciences. India key indicators [Internet]. Mumbai: IIPS; [cited 2020 Jul 11]. Available from: http://www.rchiips.org/nfhs, http://www.iipsindia.org
4. Pandey D, Meshram P, Sharma A, Tiwari R, Kasar PK. Assessment of utilization of postnatal care services in urban area of Jabalpur district. Int J Community Med Public Health. 2019; 6:3660–6.
5. International Institute for Population Sciences. National Family Health Survey (NFHS-5), 2019–2021. Mumbai: IIPS; 2021.
6. Government of India, Ministry of Health and Family Welfare. National Health Mission [Internet]. New Delhi: MoHFW. Available from: https://nhm.gov.in/
7. Government of India, Ministry of Health and Family Welfare. Janani Suraksha Yojana (JSY) [Internet]. New Delhi: MoHFW. Available from: https://www.nhm.gov.in/index1.php?lang=1&level=3&sublinkid=841&lid=309
8. Government of India, Ministry of Health and Family Welfare. Kilkari [Internet]. New Delhi: MoHFW. Available from: https://kilkari.nhp.gov.in/
9. Government of India, Ministry of Health and Family Welfare. ANMOL App [Internet]. New Delhi: MoHFW. Available from: https://nhp.gov.in/anmol-app_mtl
10. National Family Health Survey. NFHS-5 Uttar Pradesh factsheet [Internet]. Mumbai: IIPS; [cited 2023 May 22]. Available from: http://rchiips.org/nfhs/NFHS-5_UP.shtml
11. International Institute for Population Sciences (IIPS), ICF. National Family Health Survey (NFHS-4), 2015–16: India. Mumbai: IIPS; 2017. Available from: https://ruralindiaonline.org/en/library/resource/national-family-health-survey-nfhs-4-2015-16-uttar-pradesh
12. Patel A. Utilization of postnatal care services and factors affecting it among women attending a tertiary hospital. JAMP. 2022;4(4):129. doi:10.47009/jamp.2022.4.4.129
13. Mahajan N, Kaur B. Utilization of postnatal care among rural women in Punjab. Indian J Community Med. 2021; 46:126–9.
14. Chaurasiya SK, Singh NP, Shukla SK, Bajpai PK, Mathew DJ. Assessment of services of ASHA workers on antenatal and postnatal care in a district of western Uttar Pradesh, India. J Family Med Prim Care. 2020; 9:3502–7.
15. Kumar S, Agarwal M, Kumar HD. Assessment of services provided by urban ASHAs to mothers of urban slums in Lucknow district: a cross-sectional study. J Family Med Prim Care. 2024; 13:5667–73.
16. Grover K, Khanna P, Chayal V, Verma R, Kapoor R, Kumar T, et al. Evaluation of home-based postnatal care provided by ASHA worker in a rural community of Haryana: a cross-sectional study. Int J Community Med Public Health [Internet]. 2019 [cited 2025 Feb 26];6(12):5123–8.
17. Tiwari HC, Gupta SK. Postnatal care and its correlates among recently delivered women visiting BRD Medical College, Gorakhpur. Int J Community Med Public Health. 2017; 4:1548–51.
18. Kothavale A, Meher T. Completion of continuum of care for maternal, newborn and child health services and associated factors among women in India: a population-based cross-sectional study. BMC Pregnancy Childbirth. 2021; 21:731. doi:10.1186/s12884-021-04198-2
19. Garg S, Dewangan M, Krishnendu C, Patel K. Coverage of home-based newborn care and screening by ASHA workers: findings from a household survey in Chhattisgarh, India. J Family Med Prim Care. 2022; 11:6356–62.
20. Anuradha, Harleen, Singh T, Maji D. Knowledge of postnatal care among accredited social health activist workers in a North Indian rural area. Int J Reprod Contracept Obstet Gynecol [Internet]. 2022 [cited 2025 Feb 25];11(2):415–9. Available from: https://www.ijrcog.org/
21. Pathak PK, Singh JV, Agarwal M, Singh VK, Tripathi SK. Assessment of home-based newborn care visits in rural Lucknow: a cross-sectional study. J Family Med Prim Care. 2021; 10:1673–7.
22. Rairker AB, Singh R, Kapoor G, Kumar SV. Knowledge and practices of ASHA and factors influencing provision of home-based newborn care in Bahadurpur Block of Allahabad, Uttar Pradesh. Indian J Appl Res. 2019;9(6):1–4.
23. Ministry of Health and Family Welfare, Government of India. Revised home-based newborn care operational guidelines (2014) [Internet]. New Delhi: MoHFW; 2014 [cited 2025 Dec 24]. Available from: https://nhm.gov.in/images/pdf/programmes/child-health/guidelines/Revised_Home_Based_New_Born_Care_Operational_Guidelines_2014.pdf