

The Knowledge of Safe Motherhood Among higher education students in Aatharai.

Chakra Pani Bhattarai*

Abstract

This study assessed the knowledge of safe motherhood practices among higher education students in Aatharai Rural Municipality, Terhathum. Anchored in a positivist paradigm and using a descriptive cross-sectional quantitative design, researchers surveyed 70 diploma-level students from Terhathum Multiple Campus and Hyatrung Jharana Campus. Data were collected through structured, close-ended questionnaires via simple random sampling. Findings revealed a high level of awareness— (97.1%) of students demonstrated sound knowledge of safe motherhood practices, especially in areas like antenatal check-ups, iron and vitamin A intake, TT vaccination, and the role of trained health workers. Health professionals were the primary knowledge source (41.4%), followed by social circles and family. While (87.1%) preferred trained professionals for delivery and (72.9%) reported good maternal health post-delivery, gaps persisted in knowledge about safe abortion and STD prevention. These results emphasize the critical role of health workers and suggest that educational outreach should expand to address specific knowledge gaps.

Keywords: pregnancy, child birth, motherhood, decision-making, public health

Introduction

Maternal and neonatal mortality remain significant public health challenges globally, particularly in low and middle income countries like Nepal. Every day in 2023, over 700 women died from preventable causes related to pregnancy and childbirth (WHO, 2025).

* Teaching Assistant, Terhathum Multiple Campus.

Safe motherhood encompass a range of interventions and practices aimed at ensuring the health and well-being of women during pregnancy, childbirth and the postpartum period (WHO, 2015). Key components include timely and adequate antenatal care, skilled assistance during labor and delivery, access to emergency obstetric care and comprehensive postnatal care (Ministry of Health and Population Nepal, 2020).

In Nepal, despite progress in reducing maternal mortality, challenges persist, particularly in rural and remote areas. Out of 653 pregnancy related deaths among 12976 deaths of women of reproductive age (15-49 years), 622 (95%) were classified as maternal deaths (MoHP, NSO, 2022). Knowledge about safe motherhood practices is a fundamental prerequisite for informed decision-making and the utilization of essential health services. Higher education students represent a crucial segment of the population in Nepal. As further leaders, healthcare professionals, educators and parents, their knowledge about safe motherhood practices can significantly influence the health outcomes of future generations.

Limited research has specifically explored the knowledge of safe motherhood among higher education students in Nepal. Understanding their current knowledge levels, identifying potential knowledge gaps, and exploring factors associated with their knowledge is essential for developing effective educational interventions and promoting safe motherhood practices. This study aimed to assess the knowledge of safe motherhood among students enrolled in higher education institutions in Aatharai Rural Municipality.

Methodology of the study

This study dives into quantitative, empirical research, meaning gathered data directly from respondents, crunched the numbers, and turned them into valuable insights. Approach of this study is rooted in a positivist research paradigm, where prioritize observable facts. It focused on primary data, accepting the answers given by the respondents as the truth. To keep things consistent and clear, this study used a structured, close-ended questionnaire to collect information. Essentially, this is a descriptive, cross-sectional study, giving a snapshot of the current situation based on what respondents told the interviewer. The study is conducted diploma-level students from both Terhathum Multiple Campus and Hyatrung Jharana campus, the two higher education institutions within the municipality. From a total population of 326 eligible students, a sample of 70 is selected using a simple random sampling method, specifically the lottery method.

Result and data analysis**Table 1***Distribution of respondents by knowledge of safe motherhood .*

Responses	frequency	percentage
Yes	68	97.1
No	1	1.4
Not stated	1	1.4
Total	70	100

Source: Field survey, 2082.

This table summarizes the 'knowledge of respondents about safe motherhood' based on a survey of 70 individuals. A significant majority, 68 out of 70 respondents, indicated 'Yes' to the knowledge question, accounting for (97.1%) of the total. In contrast, only one respondent (1.4%) answered 'No' suggesting a very small portion lacked the knowledge. Overall, the data strongly suggests a high level of knowledge among the students in higher education.

Specific knowledge about the component of safe motherhood.**Table 2***Distribution of respondents by component specific knowledge about safe motherhood .*

Components	Yes	Percent	No	Percent	Total
Measurement of hight, weight, blood pres- sure & urine test in pregnancy	57	81.4	13	18.6	100
Regular check-up according to WHO pro- tocol	69	98.6	1	1.4	100
T*T-vaccine during pregnancy	66	94.3	4	5.7	100
Vitamin A and Iron	70	100	-	-	100
Delivery service by trained health worker	70	100	-	-	100
Delivery in clean & safe place	70	100	-	-	100
Post delivery care services	69	98.6	1	1.4	100
Need of delivery services	70	100	-	-	100

Source: Field survey, 2082.

This above table presents a compelling snapshot of knowledge regarding key components of safe motherhood. The data primarily presented as percentage of 'Yes' responses out of a total of 100 observations per component, reveals several strengths and a minor area for potential improvement. The most striking feature of this table is the overwhelmingly high percentage of 'Yes' responses a very strong awareness, adherence, or provision of essential safe motherhood practices within the surveyed population.

In conclusion, the table points a very positive picture of safe motherhood knowledge and practice, highlighting strong public health outcomes in surveyed community, with only one minor area for potential enhancement.

Distribution of Respondents by sources of knowledge about safe motherhood

The table presents data on different sources from which students acquire knowledge about safe motherhood, along with their frequencies and percentages.

Table 3

Distribution of population by sources of knowledge .

sources	number of respondents	percent
Radio	6	8.6
T.V.	6	8.6
Patrapatrika	5	7.1
Healthworkers	29	41.4
Friends	7	10.0
Family members	7	10.0
Social network	10	14.3
Total	70	100

Source: Field Survey, 2082.

This is by far the most significant source of knowledge, with 29 out of 70 students (41.4%) citing health workers as their primary source. This highlights the crucial role that healthcare professionals play in disseminating information about safe motherhood among higher education students in Aatharai Rural Municipality. Social networks, likely referring to online platforms like facebook, instagram, or messaging apps are the second most common source, with 10 out of 70 students (14.3%). This indicates the growing influence of digital platforms in information dissemination, even for health related topics. Family members are also a notable source, with 7 out of 70 students (10.0%) indicating them. This points to the importance of intergenerational knowledge transfer and discussions within the households regarding maternal health.

The students of higher education in Aatharai primarily gain knowledge about safe motherhood from health workers, followed by social networks, and then a combination of family members, friends, and traditional media. This diverse set of sources indicates a robust, albeit varied, flow of information to this important demographic.

Knowledge about the most safe delivery place

Table 4

Distribution of respondents by knowledge about the most safe delivery place .

Placess	Frequency	percentage
By trained health workers	61	87.1
Hospital	9	12.9
Total	70	100

Source: Field survey, 2082.

The table presents data related to knowledge about the most safe delivery place. It catagorizes the responses into two groups based on where deliveries are most safe and provides their frequencies and percentage. The table suggests that a vast majority (87.1%) of the respondents prioritize deliveries conducted by trained health workers as the safest option, while a smaller proportion (12.9%) specifically identify the hospital as the safest place for delivery.

Health condition of mother after safe delivery practice.

Table 5

Distribution of population by the opinion about health condition of mother after safe delivery practice .

Opinions	Frequency	Percentage
Strung	51	72.9
Weak	13	18.6
No knowledge	6	8.6
Total	70	100

*Source:*Field survey, 2082.

Based on this above table the majority of students (72.9%) appear to have a strong health conditions after safe delivery practices. However, a noticeable portion (18.6%) still feel weakness, and a smaller group (8.6%) falls in to a category possibly related to knowledge about the mother's health.

Knowledge about the role of family planning in safe motherhood.**Table 6***Distribution of respondents by knowledge about the role of family planning in safe motherhood .*

Main aspects of family planning	Number of responses-Yes	percent-age	Number of responses-No	per-centage
Control immature pregnancy	70	100	-	-
Control unwanted pregnancy	69	98.6	1	1.4
Plays the role to birth spacing	70	100	-	-
Determine intended family member	69	98.6	1	1.4
Give knowledge about safe abortion	57	81.4	13	18.6
Safe from sexually transmitted diseases	58	82.9	12	17.1

Source: Field survey, 2082.

The above table presents data on the 'Main aspects of Family Planning and their role in Safe motherhood'. It details the number of respondents', the corresponding percentage and in some cases, the number and percentage of those who answered 'No'. For control immature pregnancy 70 respondents (100%) indicated 'Yes', with no 'No' responses recorded. Similarly, for control unwanted pregnancy, 69 respondents (98.6%) said 'Yes', while 1 respondent (1.4%) said 'No'. Delay the to birth spacing also showed strong agreement, with 70 respondents (100%) answering 'Yes' and no 'No' responses. When it came to determine intended family member, 69 respondents (98.6%) answered 'Yes'. However, the give knowledge about safe abortion aspect showed a significant drop in 'Yes' responses, with only 57 respondents (81.4%) agreeing, and 13 respondents (18.6%) answering 'No'. Finally, for safe from sexually transmitted diseases, 58 respondents (82.9%) answered 'Yes', while 12 respondents (17.1%) answer 'No'.

Overall, the data suggests a high level of awareness and adoption of family planning practices for controlling pregnancy and birth spacing. However, there appears to be a noticeable gap in knowledge or practice regarding safe abortion and protection from sexually transmitted diseases, as indicated by the higher percent of 'No' responses for these aspects.

Discussion

The findings of this study highlight a generally strong understanding of key aspects of safe motherhood among higher education students in Aathrai, which aligns with several

national trends reported in the Nepal Demographic and Health Survey (NDHS) 2022. However, some gaps in knowledge and perspectives offer important insights for targeted educational interventions.

A significant proportion of the respondents in this study demonstrated sound knowledge of essential antenatal components, including the importance of antenatal checkups, iron and vitamin A supplementation, TT-vaccination, and the necessity of delivery by trained health workers. This level of awareness is consistent with national figures reported by NDHS (2022), where (94%) of women received antenatal care from skilled providers, and (96%) took iron supplements during pregnancy. The NDHS also reports that (80%) of women attended at least four ANC visits and received comprehensive ANC services, including blood pressure measurement and counseling about diet—indicating a strong public health emphasis on ANC nationwide (Ministry of Health and Population (MoHP, 2022).

Interestingly, while the NDHS data reveal that (79%) of deliveries in Nepal occurred in health facilities, students in Aathrai showed a slightly different emphasis: (87.1%) of respondents preferred delivery by trained health workers, while only (12.9%) explicitly identified health facilities like hospitals as the safest location. This reflects a more nuanced conceptual understanding among students—that the presence of skilled birth attendants is more critical to maternal safety than the location alone. This insight underscores the importance of prioritizing skilled personnel in both institutional and outreach settings.

The perception of positive health outcomes from safe motherhood practices was also notable in the study, with (72.9%) of respondents acknowledging that such practices lead to improved maternal health. However, this optimism is slightly tempered by the (8.6%) of students who lacked awareness of postnatal health implications indicating an area for educational improvement.

Nationally, NDHS (2022) reports that only (70%) of women and newborns received a postnatal checkup within the first two days of delivery, suggesting that postnatal care remains an area of moderate coverage and potential neglect, both in practice and knowledge dissemination.

Knowledge related to the role of family planning in safe motherhood was generally high. The respondents demonstrated a solid understanding of how family planning contributes to safe motherhood through birth spacing, control of immature or unwanted pregnancies, and decision-making regarding family size. This aligns with Nepal's border reproductive health goals; however, NDHS does not disaggregate knowledge levels about family planning among youth, making direct comparison difficult. Despite this strength, This study also revealed gaps in students' awareness regarding safe abortion and sexually transmitted diseases (STDs). This is an important concern, as it suggests that higher education curricula may still lack comprehensive sexual and reproductive health (SRH)

content. NDHS 2022 data suggest progress in maternal care utilization but does not provide detailed data on young adults' or students' knowledge about safe abortion or STDs, highlighting an area where micro-level academic research like this study can offer a unique value.

The data also suggest that digital platforms and social networks are emerging as significant sources of information. This findings reflects the global trend of increasing reliance on digital media for health-related information (WHO, 2025). Nonetheless, traditional sources like family, friends, and media (e.g., TV and newspapers) continue to play a supportive role, highlighting the multifaceted nature of health information dissemination.

In summary, while the findings from Aathrai reflect a generally encouraging level of knowledge among educated youth about the fundamentals of safe motherhood, they also expose the need for deeper integration of SRH topics—particularly postnatal care, safe abortion, and STDs—within higher education. These knowledge gaps, if unaddressed, could limit the effectiveness of youth as future advocates or practitioners of safe motherhood practices.

Conclusion

This study, conducted in Aatharai Rural Municipality, revealed a high level of knowledge about safe motherhood practices among higher education students, with (97.1%) of respondents indicating awareness. Key components of safe motherhood, such as antenatal check-ups, iron and vitamin A intake, TT-vaccination, and delivery by trained health workers in clean and safe environments, were well-understood by a majority of students. Health workers were identified as the primary source of this knowledge (41.4%), underscoring their crucial role in disseminating health information. Digital platforms and social networks are emerging as significant sources of information, reflecting a global trend, while traditional sources like family, friends, and media continue to play a supportive role.

A nuanced understanding was observed regarding safe delivery, with most students (87.1%) prioritizing delivery by trained health workers over specific institutional settings like hospitals, indicating an understanding that skilled attendants are critical for maternal safety. Perceptions of maternal health post-delivery were largely positive, with (72.9%) believing safe motherhood practices lead to strong maternal health. However, a small segment (8.6%) lacked knowledge about postnatal health implications.

While knowledge about family planning's role in safe motherhood (birth spacing, control of immature/unwanted pregnancies, family size determination) was generally high, gaps were identified in awareness regarding safe abortion and the prevention of sexually transmitted diseases (STDs). The finding recommended that include enhancing health worker-led education, integrating sexual and reproductive health in curricula,

using digital media for outreach, emphasizing postnatal care awareness, and promoting institutional delivery benefits alongside skilled birth attendants to address knowledge gaps in safe motherhood

References

- Ministry of Health and Population (Nepal), Family Welfare Division. (2020). *National medical standard for maternal and newborn care (Volume III)*. Ministry of Health and Population. <https://fwd.gov.np/wp-content/uploads/2022/10/NMS-Vol-III.pdf>
- Ministry of Health and Population (MoHP) [Nepal], New ERA, & ICF. (2022). *Nepal Demographic and Health Survey 2022: Key Indicators Report*. MoHP.
- National Statistics Office & Ministry of Health and Population. (2021). *National population and housing census 2021: Nepal maternal mortality study 2021*. National Statistics Office & Ministry of Health and Population.
- World Health Organization. (2015). *Pregnancy, childbirth, postpartum and newborn care: A guide for essential practice* (3rd ed.). World Health Organization. <https://data.unicef.org/resources/pregnancy-childbirth-postpartum-newborn-care-guide-essential-practice/>
- World Health Organization. (2025). *Trends in maternal mortality estimates 2000 to 2023: Estimates by WHO, UNICEF, UNFPA, World Bank Group and UNDESA/Population Division* (WHO digital library report; ISBN 9789240108462). World Health Organization. <https://www.who.int/publications/i/item/9789240108462>