

A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING WHO SAFE CHILDBIRTH CHECKLIST AMONG STAFF NURSES OF SELECTED HOSPITAL, BAREILLY, U.P.

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ABSTRACT

Background: Respectful maternity care and adherence to essential birth practices remain critical for reducing preventable maternal and neonatal morbidity and mortality. The WHO Safe Childbirth Checklist (SCC) consolidates evidence-based practices at four pause points around childbirth. Staff nurses require adequate knowledge of the SCC to ensure consistent implementation.

Aim: To assess the effectiveness of a structured teaching programme on knowledge regarding WHO Safe Childbirth Checklist among staff nurses of a selected hospital in Bareilly, Uttar Pradesh.

Methods: A quantitative quasi-experimental one-group pre-test post-test design was used. Forty staff nurses were selected by non-probability purposive sampling from Rohilkhand Medical College and Hospital, Bareilly. A structured knowledge questionnaire was administered before the intervention and after the structured teaching programme. Descriptive statistics and inferential tests (paired t-test, chi-square) were used for analysis.

Results: In the post-test, 25 (62.50%) staff nurses had adequate knowledge, 13 (32.50%) had moderate knowledge and 2 (5.00%) had inadequate knowledge. The mean knowledge score increased from 11.00 in the pre-test to 20.70 in the post-test, with a mean difference of 9.70. The paired t-test value was 20.01, which was highly significant at $p < 0.001$. Significant association was found with age, gender, educational qualification, residential area and years of experience.

Conclusion: The structured teaching programme was effective in improving the knowledge of staff nurses regarding the WHO Safe Childbirth Checklist. Regular in-service education is recommended to sustain and enhance adherence to essential birth practices.

Keywords: WHO Safe Childbirth Checklist; structured teaching programme; staff nurses; knowledge; respectful maternity care; quasi-experimental study

INTRODUCTION

The notion of respectful maternity care (RMC) acknowledges that women's experiences of childbirth are crucial aspects of health care quality and that their autonomy, dignity, feelings, choices and preferences have to be respected. Respectful maternity care (RMC) is defined as the care provided to all women in a manner that maintains their dignity, privacy and confidentiality, ensures freedom from harm and mistreatment, and enables informed choice and continuous support during labour and childbirth.

Pregnancy and childbirth is a great gift in the lives of the expectant mother and their families. Childbirth is a major life-event and becoming a mother is regarded as a liminal experience. Women can experience birth with feelings varying from great happiness, strengthening and healing to suffering and trauma. Evidence highlights that women experience childbirth as a negative or traumatic event, with a worldwide prevalence of 5–50%.

RMC is protection from verbal and physical abuse, disrespect and discrimination during care. The components of RMC include respect for autonomy, dignity, empathy, privacy, confidentiality, feelings, choices and preferences, including companionship during maternity care, and prevention of injury and abuse.

Maternal and neonatal morbidity and mortality remain unacceptably high despite global efforts. Gaps in care during labour, delivery and the early neonatal period are well recognised. Poor quality of care is of particular concern in low- and middle-income countries where the majority of avoidable maternal, fetal and newborn morbidity and mortality occurs.

There is growing global momentum to improve quality of childbirth care. The WHO Safe Childbirth Checklist (SCC), publicly released in 2015, consolidates essential birth practices that should be performed for every woman and infant. The SCC contains 29 items divided into four pause points—on admission, just before pushing or caesarean, within one hour after birth, and before discharge—and focuses on preventing the main causes of maternal death (bleeding, hypertensive diseases, infection), stillbirths and neonatal deaths (asphyxia, infection and prematurity).

The ultimate goal of using the Safe Childbirth Checklist is to help ensure that healthcare workers consistently follow the core set of safety practices, thereby minimising common and avoidable risks. Staff nurses, as frontline providers in labour rooms, require adequate knowledge of the checklist to implement it effectively.

NEED FOR THE STUDY

Childbirth is a complex process with many necessary steps that ensure both the mother and her newborn receive the safest care possible. Most people find it difficult to simply remember all of the relevant information; actually performing all the steps correctly and in the correct order is even more challenging.

From 2000 to 2020, the global maternal mortality ratio (MMR) declined by 34 per cent from 339 deaths to 223 deaths per 100,000 live births. In India, the maternal mortality ratio has improved yet remains a public-health concern. Complications in pregnancy and childbirth continue to be leading causes of death, with the greatest burden clustered around the time of birth.

The WHO Safe Childbirth Checklist helps health-care workers ensure that essential birth practices are performed systematically. Midwives and staff nurses need the checklist as a critical reminder to cover all necessary steps during childbirth, thereby minimising the risk of complications and improving the safety of both mother and baby.

Hence, a study was undertaken to assess the effectiveness of a structured teaching programme on knowledge regarding WHO Safe Childbirth Checklist among staff nurses of a selected hospital in Bareilly, Uttar Pradesh.

STATEMENT OF THE PROBLEM

“A study to assess the effectiveness of structured teaching programme on knowledge regarding WHO Safe Childbirth Checklist among staff nurses of selected hospital, Bareilly, U.P.”

AIM

To assess the effectiveness of structured teaching programme on knowledge regarding WHO Safe Childbirth Checklist among staff nurses.

OBJECTIVES OF THE STUDY

1. To assess the level of knowledge regarding WHO Safe Childbirth Checklist among staff nurses.
2. To assess the effectiveness of structured teaching programme on knowledge regarding WHO Safe Childbirth Checklist among staff nurses.
3. To find out the association between knowledge score of staff nurses regarding WHO Safe Childbirth Checklist with their selected demographic variables.

HYPOTHESES

All the hypotheses were tested at the level of $p = 0.05$.

1. **H1:** There will be significant difference between pretest and posttest knowledge score of staff nurses regarding WHO Safe Childbirth Checklist after structured teaching programme.
2. **H2:** There will be significant association between pretest knowledge score of staff nurses regarding WHO Safe Childbirth Checklist with their selected demographic variables.

OPERATIONAL DEFINITIONS

1. **Effectiveness:** In this study, it refers to the outcome of the educational programme which will be assessed by using a knowledge questionnaire.
2. **Structured Teaching Programme:** In this study, it refers to a systematically developed instructional and teaching session prepared by the investigator to impart knowledge regarding WHO Safe Childbirth Checklist.
3. **Knowledge:** In this study, it refers to facts, information and skills acquired through education regarding WHO Safe Childbirth Checklist as measured by structured knowledge questionnaire.
4. **WHO Safe Childbirth Checklist:** WHO Safe Childbirth Checklist is a list of essential practices that help improve the quality of care during childbirth.
5. **Staff Nurses:** A person who is registered and has educational qualification of B.Sc. (N), Post B.Sc. (N), Diploma in nursing or Auxiliary Nurse Midwives (ANM) working in the labour unit and providing care to women at the time of childbirth.

CONCEPTUAL FRAMEWORK

The conceptual framework for the study was adapted from the Health Belief Model given by Rosenstock and Becker (1974). It addresses the relationship between a person's beliefs and health-related actions and provides a way of understanding and predicting how individuals will comply with recommended practices.

Individual perception, modifying factors (including demographic variables and knowledge level) and likelihood of action influence the adoption of the WHO Safe Childbirth Checklist. The structured teaching programme serves as a cue to action aimed at improving knowledge and subsequent adherence to essential birth practices.

REVIEW OF LITERATURE

1. Literature related to knowledge regarding WHO Safe Childbirth Checklist among staff nurses / health professionals.

Jeremiah and Catherine Ugwem (2023) investigated a study to assess the Doctors and Nurses' Knowledge and Use of Safe Childbirth Checklist (SCC) in public tertiary hospitals in Rivers State. A descriptive cross-sectional study was used. Structured questionnaires were self-administered to 207 respondents (nurses and doctors) working in obstetrics and gynaecology departments. Responses obtained at Teaching Hospital A showed that 80% of the Nurses/Midwives had no knowledge of the SCC tool; 100% of the House Officers had not seen the tool; 90% of the Resident Doctors had also not used the SCC tool. At Teaching Hospital B, 80% of the Nurses had no knowledge of the SCC tool and only 20% of the Nurses had seen it earlier. The study showed evidence that the SCC tool is not in routine use in the two tertiary hospitals and highlighted a substantial knowledge gap among doctors and nurses regarding the WHO Safe Childbirth Checklist.

Mon Mon Yee and Khin Than Yee (2023) conducted a qualitative study to assess the knowledge and practices regarding the World Health Organization Safe Childbirth Checklist among obstetrics and gynaecology professionals. Secondary data were collected from literature searches across electronic databases such as PubMed, Google Scholar and PubMed Central. The study synthesised information concerning knowledge and practices of healthcare providers who attend childbirth. The authors concluded that better awareness of knowledge and practice concerning the WHO Safe Childbirth Checklist is required to indicate safe practice for maternal and child safety.

2. Literature related to effectiveness of structured / video-assisted teaching programmes on childbirth-related knowledge.

K.P. Smitha and S.R. Raksha (2024) conducted a pre-experimental one-group pre-test post-test study to assess the effectiveness of a video-assisted teaching programme on knowledge regarding evidence-based practice in labour practices among final-year B.Sc. nursing students at a college of nursing, Mysuru. Sixty students were selected through non-probability purposive sampling and data were collected using a self-structured knowledge questionnaire. The pre-test overall mean percentage of knowledge score was 50.66% (mean $\pm$ SD = 15.20 $\pm$ 1.48) and the post-test mean percentage was 91.76% (mean $\pm$ SD = 27.53 $\pm$ 1.17). The mean difference was 12.33 (SD 1.90). The calculated paired t-test value was 50.24 (df = 59, p = 0.0001). There was no significant association between demographic variables and pre-test knowledge score. The study concluded that the video-assisted teaching programme was effective in enhancing knowledge regarding evidence-based practices in labour.

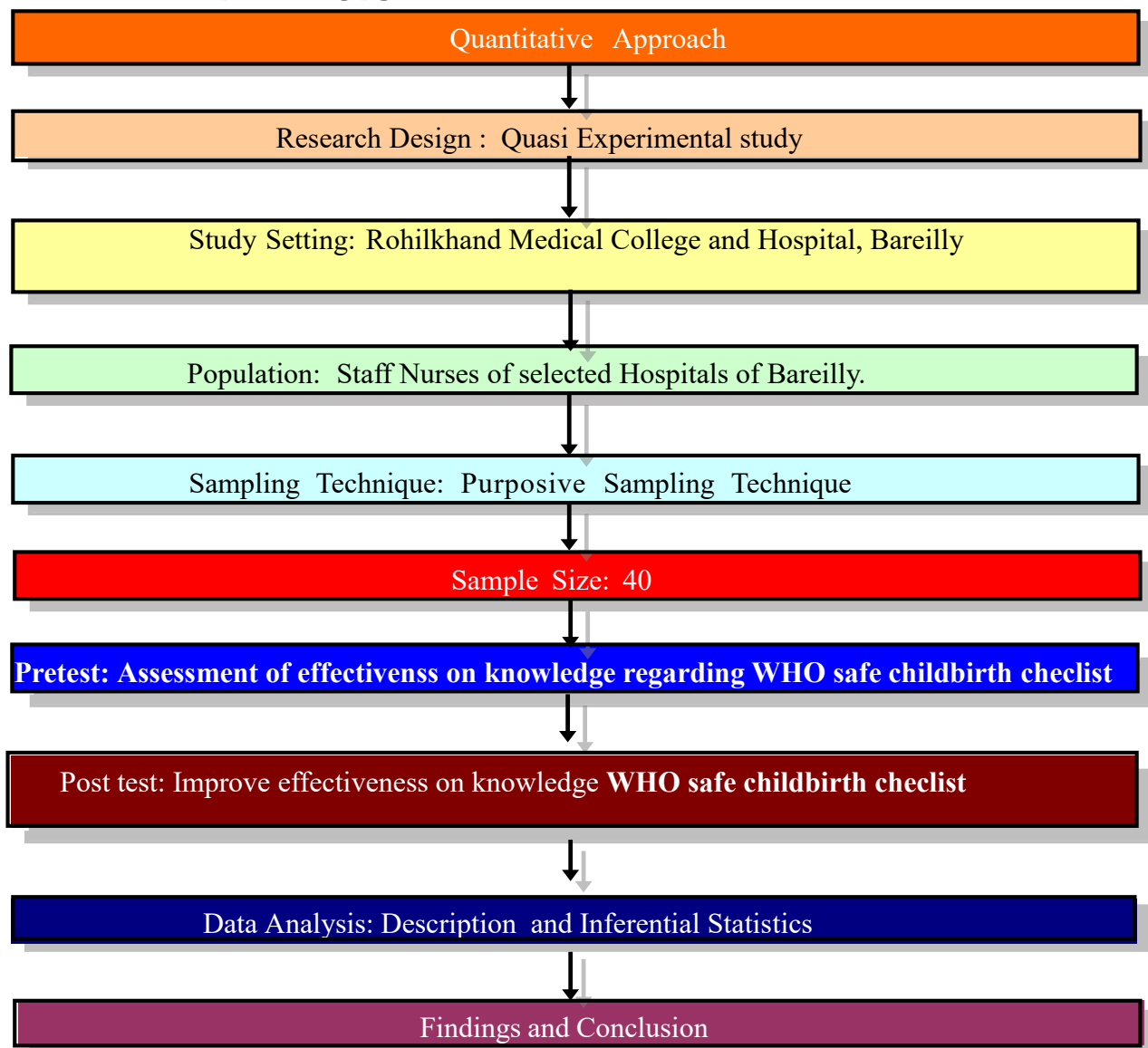
Irin Anitha M. (2021) conducted a study to assess the effectiveness of video-assisted teaching on knowledge regarding childbirth preparation among primigravida mothers. A pre-experimental one-group pre-test post-test research design was used. The study demonstrated a statistically significant improvement in knowledge scores after the video-assisted teaching intervention, supporting the effectiveness of structured audiovisual educational programmes in maternal health topics.

3. Literature related to childbirth / labour protocol and respectful maternity care.

Lovely, Gokhale Ashish Vishnu and Agarwal Shonali (2024) conducted a comparative prospective cohort study on childbirth experience of mothers at a tertiary care hospital with 126 women divided into two groups

(Booked and Unbooked). Group A received comprehensive care including antenatal exercises, breastfeeding counselling, education on alternative birthing positions and non-pharmacological pain management, while Group B received standard care. Midwife-led counselling during antepartum, intrapartum and postpartum phases positively influenced childbirth experiences. Group A showed lower postpartum pain scores, quicker initiation of breastfeeding, reduced episiotomy needs, shorter second-stage labour and higher antepartum satisfaction compared with Group B, underscoring the value of structured, respectful and protocol-based maternity care.

MATERIAL AND METHODS



RESEARCH DESIGN

The research design adopted for this study is quasi-experimental, one-group pre-test and post-test design. This design was used to assess the effectiveness of structured teaching programme on knowledge regarding WHO Safe Childbirth Checklist among staff nurses of selected hospital, Bareilly, U.P.

RESEARCH SETTING

The present study was conducted in Rohilkhand Medical College and Hospital, Bareilly, Uttar Pradesh.

TARGET POPULATION

In the present research study the target population consists of Staff Nurses working in the labour and maternity units.

SAMPLE SIZE AND SAMPLING TECHNIQUE

The sample comprised of 40 staff nurses selected by non-probability purposive sampling technique.

TOOL

A structured knowledge questionnaire was developed on the basis of the objectives of the study after extensive review of literature and guidance from experts in the field of Nursing and Obstetrics and Gynaecology.

DATA COLLECTION

Before data collection the researcher explained the purpose of the study to the staff nurses. Confidentiality was assured and informed consent was obtained. Pre-test knowledge was assessed using the structured questionnaire. The structured teaching programme on WHO Safe Childbirth Checklist was then administered. Post-test was conducted using the same questionnaire to evaluate the effectiveness of the teaching programme.

DATA ANALYSIS

The data obtained were analysed by descriptive and inferential statistics (frequency, percentage, mean, standard deviation, paired t-test and chi-square test).

RESULT

Section I: Distribution of sample characteristics according to demographic variables.

Table 1: Frequency and percentage distribution of Staff Nurses according to socio-demographic variables (N = 40)

S. No.	Demographic variables	Frequency	Percentage (%)
1	Age in years		
	20–25 years	19	47.50%
	25–30 years	11	27.50%
	30–35 years	7	17.50%
	35 years and above	3	7.50%
2	Gender		
	Male	14	35.00%
	Female	26	65.00%
3	Educational qualification		
	A.N.M.	12	30.00%
	G.N.M.	8	20.00%
	B.Sc. nursing	14	35.00%
	M.Sc. nursing	6	15.00%
4	Monthly income		

	Rs. 15,000 – 20,000	10	25.00%
	Rs. 20,001 – 25,000	13	32.50%
	Rs. 25,001 – 30,000	11	27.50%
	Rs. 30,000 and above	6	15.00%
5	Residential area		
	Urban	21	52.50%
	Rural	19	47.50%
6	Year of experience		
	1–5 years	4	10.00%
	5–10 years	9	22.50%
	10–15 years	15	37.50%
	Above 15 years	12	30.00%

Table reveals that the majority of staff nurses (47.50%) were in the age group of 20–25 years, 65.00% were female, 35.00% held B.Sc. Nursing qualification, 52.50% belonged to urban areas, and 37.50% had 10–15 years of experience.

Section II: Assessment of pre-test and post-test knowledge regarding WHO Safe Childbirth Checklist.

Table 2: Frequency and percentage distribution of pre-test and post-test level of knowledge of Staff Nurses (N = 40)

In the post-test, 25 (62.50%) staff nurses had adequate knowledge, 13 (32.50%) had moderate knowledge and only 2 (5.00%) had inadequate knowledge, indicating a clear shift towards higher knowledge levels after the structured teaching programme.

Section III: Comparison of pre-test and post-test knowledge scores to determine effectiveness of the Structured Teaching Programme.

Table 3: Mean, Standard Deviation and paired t-test of knowledge scores (N = 40)

Area of analysis	Mean	SD	Mean Diff.	t-value	p-value
Pre-test	11.00	4.04	9.70	20.01	<0.001
Post-test	20.70	3.73			

Table 3 reveals that the mean knowledge score increased from 11.00 (SD 4.04) in the pre-test to 20.70 (SD 3.73) in the post-test. The mean difference was 9.70. The calculated paired t-value (20.01) was highly significant at $p < 0.001$, indicating that the structured teaching programme was effective in improving knowledge regarding WHO Safe Childbirth Checklist.

Section IV: Association between pre-test knowledge scores and selected demographic variables.

There was a significant association between pre-test knowledge scores and age, gender, educational qualification, residential area and years of experience. No significant association was found with monthly income. Hence Hypothesis H2 was partially accepted.

S.No .	Demographic Variables	Level of Knowledge						x ²	Table value	Inference
		Adequate knowledge		Moderate knowledge		Inadequate knowledge				
		No.	%	No.	%	No.	%			
1.	Age							13.032 (df=2)	5.995	S
	a) 20-25 years	10	25.0	5	12.5	4	10.0			
	b) 25-30 years	6	15.0	3	7.5	2	5.0			
	c) 30-35 years	3	7.5	4	10.0	0	0.0			
	d) 35 years and above	1	2.5	1	2.5	1	2.5			
2.	Gender							83.472 (df=4)	9.488	S
	a) Male	8	20.0	4	10.0	2	5.0			
	b) Female	11	27.5	9	22.5	6	15.0			
3.	Educational qualifications							67.53 (df=4)	9.488	S
	a) A.N.M.	6	15.0	2	5.0	4	10.0			
	b) G.N.M.	2	5.0	3	7.5	3	7.5			
	c) B.Sc. nursing	3	7.5	5	12.5	6	15.0			
	d) M.Sc. nursing	2	5.0	2	5.0	2	5.0			
	e) Others	0	0.0	0	0	0	0			
4.	Monthly income							4.637 (df=4)	9.488	NS
	a) Rs. 15,000 – Rs. 20,000	6	15.0	0	0	4	10.0			
	b) Rs. 20,001 – Rs. 25,000	3	7.5	8	20.0	2	5.0			
	c) Rs. 25,001 – Rs. 30,000	7	17.5	3	7.5	1	2.5			
	d) Rs. 30,000 and above	2	5.0	2	5.0	2	5.0			
5.	Residential area							23.009 (df=2)	5.985	S
	a) Urban	8	20.0	6	15.0	7	17.5			
	b) Rural	5	12.5	9	22.5	5	12.5			

6	Year of experience									
a)	1-5 years	2	5.0	1	2.5	1	2.5			
b)	5-10 years	5	12.5	3	7.5	1	2.5	19.159	4.197	S
c)	10-15 years	3	7.5	7	17.5	5	12.5	(df=2)		
d)	Above 15 years	3	7.5	5	12.5	4	10.0			

DISCUSSION

Comparison of pre-test and post-test

The findings of the study revealed a marked improvement in the knowledge level of staff nurses following the implementation of the Structured Teaching Programme. The mean pre-test knowledge score was 11.00, which increased substantially to 20.70 after the intervention. The mean difference of 9.70 and the paired t-value of 20.01 ($p < 0.001$) clearly demonstrate that the structured teaching programme was highly effective in improving knowledge regarding the WHO Safe Childbirth Checklist.

These results are consistent with previous studies that have reported significant gains in knowledge after structured educational interventions on essential birth practices and related topics among nurses and midwives.

Association between pretest knowledge scores and socio-demographic variables

Significant association was observed between pre-test knowledge scores and age, gender, educational qualification, residential area and years of experience. This suggests that these demographic factors influence baseline knowledge of staff nurses regarding the WHO Safe Childbirth Checklist.

RECOMMENDATIONS

1. Similar studies may be conducted with a larger sample and true experimental design.
2. The study may be replicated in different settings and geographic regions.
3. Regular in-service education and hands-on training on the WHO Safe Childbirth Checklist should be institutionalised.
4. Further research may assess knowledge, attitude and practice (KAP) as well as actual adherence to the checklist in clinical settings.
5. Monitoring and feedback mechanisms should be established to sustain improved practices.

SUMMARY

The primary aim of the present study was to evaluate the effectiveness of a structured teaching programme on knowledge regarding WHO Safe Childbirth Checklist among staff nurses and to equip them with adequate knowledge to support safe and respectful childbirth practices.

CONCLUSION

Based on the findings of the study, the following conclusions were drawn.

1. The overall pre-test knowledge scores of staff nurses regarding WHO Safe Childbirth Checklist were low to moderate.
2. The structured teaching programme was administered to the staff nurses.

3. Post-test results showed significant improvement in the level of knowledge (mean score increased from 11.00 to 20.70; $t = 20.01$, $p < 0.001$).

In conclusion, the present study established that the Structured Teaching Programme was an effective educational intervention for improving the knowledge of staff nurses regarding the WHO Safe Childbirth Checklist. Continuous professional development remains essential to sustain high-quality, respectful maternity care.

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