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A study to assess the knowledge and practices regarding prevention and management of perineal tear during normal delivery among staff nurses with a view to develop a standard operating protocol in selected hospitals at Pune

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Abstract

Introduction: Midwife's skill and judgment are crucial factors in minimizing maternal trauma and ensuring an optimal birth for both mother and baby. These qualities are acquired by experience but certain basic principles should be applied whatever the expertise of the midwife. These are: observation of progress, prevention of infection, emotional and physical comfort of the mother, anticipation of normal events, recognition of abnormal developments. So, every nurse should be aware of preventive measures of perineal tear. Problem statement "A study to assess the knowledge and practices regarding prevention and management of perineal tear during normal delivery among staff nurses with a view to develop a standard operating protocol in selected hospitals at Pune."

Materials and methodology: The researcher has adopted methodological study design and the research approach is evaluative approach. The conceptual framework of the study based upon Daniel Stufflebean CIPP Model. The setting of this study was Jijamata Dr. DY Patil and Bhosari hospital in Pune. Non probability purposive sampling technique was used for 30 sample. The tool developed which includes section 1= demographic variables section 2=questionnaire contains 15 questions section 3= observational checklist contains 20 practices. Tool validity was done and tool found reliable. Study found feasible after pilot study.

Results: it has been observed that 70% of the staff nurses had average knowledge, 26.6% of them had poor knowledge and 3.3% of them had good knowledge. 80% of the staff nurses had average practice and 20% of them had good knowledge regarding prevention and management of perineal tear.

Conclusion: The result of the present study shows that there is significant gap in the knowledge and practice score on prevention and management of perineal tear among labour room nurses and hence there is need for a Standard Operating Protocol for the improvement of knowledge and practice regarding prevention and management of perineal tear. The content of the SOP covered preventive aspect and management aspect. The preventive aspect covers various steps of procedures. It includes maternal position pushing techniques, perineal massage, perineal warm packs, hands on-hands poised (or off) techniques. The management aspect covers systematic perineal assessment, perineal repair, reducing pain and the risk of infections and promoting perineal recovery. The proper knowledge and implementation of standard operating protocol will reduce the incidence of perineal tear and its complications.

Keywords: Standard Operating Protocol (S.O.P), Assess, knowledge, practice, perineal tear

1. Introduction

"Prevention is better than cure" An intact perineum is a badge of honour amongst midwives. When summarising a birth, midwives often end with 'and an intact perineum' to which the reply is usually 'well done'. During the process of normal delivery, laceration of the perineum and vagina may be caused by rapid and sudden expulsion of the head, excessive size of the new born and friable maternal tissues. It is crucial for nurses to recognize and understand the normal birth process to detect and to prevent complications from normal labour and birth. It will possible only when the nurse and other members of obstetric team use their knowledge and skills in a concerted effort to provide care. It is essential to manage the second stage of labour with a controlled delivery that minimizes trauma.

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Currently the practice in many setting is to prevent genital trauma manually support the perineum during birth. Alternative measures for perineal management such as warm compression, massage with lubricant may lessen the degree of birth canal laceration or trauma. Midwife's skill and judgment are crucial factors in minimizing maternal trauma and ensuring an optimal birth for both mother and baby. These qualities are acquired by experience but certain basic principles should be applied whatever the expertise of the midwife. These are: observation of progress, prevention of infection, emotional and physical comfort of the mother, anticipation of normal events, recognition of abnormal developments. So, every nurse should be aware of preventive measures of perineal tear.

2. Methodology

Research Approach

Evaluative approach

Research Design

Methodological Study Design

Research Setting

Pilot study: Jijamata hospital, Pimpri, Pune.

Final study: Dr. D Y Patil hospital, Bhosari Hospital, Pune.

Population: The population of this study comprises of staff nurses who are working in labour rooms.

Sample: The samples selected for the present study is the staff nurses who are working in the labour rooms of selected hospitals.

Sample selection criteria (inclusion & exclusion)

Inclusion criteria

- 1) Registered staff nurses who are working in labour room.
- 2) The staff nurses who are willing to participate in the study.

Exclusion criteria

- 1) The staff nurses who are not available during the time of data collection.

Sample size

30

Sampling technique

Non Probability Purposive Sampling Technique

Development tool

Opinion and suggestions were taken from the experts, which helped in determining the important areas to be included.

Description of tool

It includes 3 sections

Section I: This section involves the items searching the information on the demographic profile of a sample such as age, education, professional qualification, experience, number of deliveries conducted in a month and participation of any in-service education.

Section II: Deals with structured questionnaire total 15 questions to assess the knowledge of the staff nurses regarding the prevention and management of perineal tear. Total score is divided as poor (0-5) Average (6-10) Good (11-15).

Section III: Deals with observational checklist for the assessment of practice of staff nurses during normal delivery for the prevention and management of perineal tear. Checklist consists of 20 practices of yes or no type questions. Total score is divided as Poor practice (1-5) Average level of practice (6-10), Good practice (11- 15) Excellent practice (16-20).

Validity: Data collection tool was sent to 20 experts along with a scoring sheet for content validity, out of whom 13 were received back with their valuable suggestions and guidance for the perfection. The experts belongs to different fields which included doctors, professors and lectures in obstetrics and gynaecology and statisticians. Certain items were modified as per their suggestions

Ethical consideration

- Researcher had obtained approval from appropriate review boards to conduct the study
- Only the samples who had signed the consent form are included in the study.
- Confidentiality of data is maintained strictly.

Reliability: Reliability was assessed by using test- retest method for knowledge section & inter-rator method for practice section. Pearson correlation coefficient for knowledge section and cohen's kappa for practice section were found to be 0.96, hence the tool is found to be reliable.

Pilot study: After doing pilot study investigator found that it is feasible to carry out actual study.

Plan for data collection

- Ethical committee clearance
- Permission letter from authorities of the hospital
- Investigator approached the samples of selected hospital, informed them regarding the objective of the study and obtained their informed consent after assuring the confidentiality of the data.
- Data collection was done among the selected samples with structured questionnaire and observational checklist.
- The duration of data collection for each sample was 20-25 minutes for knowledge and 5-8 hours for practice.
- The samples were divided into three groups, where 10 samples participated each day for assessing the knowledge through structured questionnaire and for observing practice selected 3-4 samples per day according to their convenience.
- Time was fixed and informed to the participants that is from 3pm to 5pm.

Data analysis and interpretation

The data analysis was planned to include descriptive and inferential statistics. The following plan for analysis was made with the opinion of experts. The analysis would be done based on the objectives to be tested.

- Items related to the background variables would be analysed in terms of frequency and percentages.
- Scores knowledge section would be graded in 3 categories i.e. poor average and good
- Scores of practice section would be graded in 4 categories i.e. poor average good and excellent.
- Frequency distribution would be plotted to represent the final score.
- Mean, standard deviation of the test would be computed.
- The findings would be documented in tables graphs and diagrams.

Result

The major findings of the study were based on the objective of the study.

Section I demographic characteristics

43 % of the staff nurses had age above 35 years, another 43 % of them had age 20-25 years, 10 % of them had age 26-30 years and 3 % of them had age 31-35 years. 47% of them were GNM, 20% of them were ANM, 13% of them had B.Sc. and 20% of them were PBBSc.30% of them had less than 1 year of working experience, 40% of them had 1-6 years of working experience, 20% of them had more than 10 years of working experience and 10% of them had 6-10 years of working experience. 33.3% of them had conducted

less than 10 deliveries in a month, 36.7% of them had conducted 11-20 deliveries, 6.7% of them had conducted 21-30 deliveries and 23.3% of them had conducted more than 30 deliveries.43.3% of them had undergone in-service education on prevention and management of perineal tear.

Section II: Analysis of data related to the knowledge of staff nurses regarding prevention and management of perineal tear.

70% of the staff nurses had average knowledge (Score 6-10), 26.7% of them had poor knowledge (score 0-5) and 3.3% % of them had good knowledge (score 11-15) regarding prevention and management of perineal tear.

Section III: Analysis of data related to the existing practices of staff nurses regarding prevention and management of perineal tear.

80% of the staff nurses had average practices (Score 6-10) and 20% of them had good practices (Score 11-15) regarding prevention and management of perineal tear.

Section IV: Analysis of data related to association of knowledge and practices of staff nurses regarding prevention and management of perineal tear with their demographic variables

This assessment was done using Fisher’s exact test.

Table 1: Association of knowledge of staff nurses regarding prevention and management of perineal tear with their demographic variables. N=30

Demographic variable		Knowledge			p-value
		Poor	Average	Good	
Age	20 – 25 years	4	9	0	0.280
	26 – 30 years	1	1	1	
	31 – 35 years	0	1	0	
	35 and above	3	10	0	
Professional Qualification	ANM	4	2	0	0.048
	GNM	2	11	1	
	B.Sc.	2	2	0	
Working Experience	P.B.B. Sc.	0	6	0	0.172
	Less than 1 Year	1	8	0	
	1 - 6 Years	6	5	1	
	6-10 Years	0	3	0	
No of deliveries conducted in a month	More than 10 Year	1	5	0	0.517
	Less than 10 deliveries	1	8	1	
	11 – 20 deliveries	4	7	0	
	21 – 30 deliveries	1	1	0	
Undergone any in-service education on prevention and management of perineal tear	More than 30 deliveries	2	5	0	1.000
	Yes	4	9	0	
	No	4	12	1	

Since p-value corresponding to professional qualification was 0.048, which is less than 0.05, the demographic variable professional qualification was found to have significant

association with knowledge of staff nurses regarding prevention and management of perineal tear.

Table 2: Association of practices of staff nurses regarding prevention and management of perineal tear with their demographic variables N=30

Demographic variable		Practices		p-value
		Average	Good	
Age	20 – 25 years	12	1	0.218
	26 – 30 years	3	0	
	31 – 35 years	1	0	
	35 and above	8	5	
Professional Qualification	ANM	6	0	0.630
	GNM	10	4	
	B.Sc.	3	1	

	P.B.B.Sc	5	1	
Working Experience	Less than 1 Year	8	1	0.848
	1 - 6 Years	9	3	
	6-10 Years	2	1	
	More than 10 Year	5	1	
No of deliveries conducted in a month	Less than 10 deliveries	10	0	0.121
	11 – 20 deliveries	7	4	
	21 – 30 deliveries	1	1	
	More than 30 deliveries	6	1	
Undergone any in-service education on prevention and management of perineal tear	Yes	10	3	1.000
	No	14	3	

Since all the p-values are greater than 0.05, none of the demographic variable was found to have significant association with practices of staff nurses regarding prevention and management of perineal tear.

4. Discussion

The present study was designed to assess the knowledge and practice regarding prevention and management of perineal tear during normal labour among staff nurses with a view to prepare a standard operating protocol.

The present research study conducted from 23rd July to 14th August. Data were collected from 30 samples who are working in labour room of selected hospitals. The selected hospitals were Dr. D.Y Patil Hospital and Bhosari Hospital Bhosari, Pune.

The findings of the study are discussed with reference to the objectives, and findings of the similar studies. Discussion of the findings is presented as for demographic variables, knowledge and practice of the staff nurses regarding prevention and management of perineal tear, association between the knowledge and practices with demographic variables.

An evaluative study was done by Mrs.Prathibha.SD under Rajiv Gandhi University, Karnataka to assess the effectiveness of pamphlet on knowledge among staff nurses regarding prevention and management of perineal tear while conducting normal labour. The present study is also an evaluative study to assess the knowledge and practice of the staff nurses regarding prevention and management of perineal tear with a view to develop a S.O.P. Quasi experimental research design with one group pre test post test design was used. In this study methodological research design was used. Fifty samples were selected by purposive sampling technique. In this 30 samples were selected through non probability purposive sampling technique. The pre test score was 45.30% and the post test score was 80% showing an effectiveness of 34.7%. in this study among 30% of staff nurses, 3.3% of them having good knowledge, 26.6% of them having poor knowledge and 70% of them having average knowledge regarding the prevention and management of perineal tear. In assessing the practice section it is found that among 30 staff nurses 80% of them having average practice and 20% of them having good practice score in prevention and management of perineal tear during normal delivery.

A randomised controlled trial study was conducted to provide a preliminary evidence of the effectiveness of resuturing versus expectant management for dehiscence perineal wounds following child birth. Information collected through semi structured interviews. The result of this study used to develop a guideline for the best management of perineal wound dehiscence.

Hence, above studies showed that there is a requirement to improve the knowledge and practices of staff nurses regarding prevention and management of perineal tear during normal delivery. So the investigator decided to prepare a S.O.P to improve the knowledge and practice of the staff nurses regarding prevention and management of perineal tear during normal delivery.

5. Conclusion

The overall experience of conducting this study was satisfying one, as there was good co-operation from labor room nurses. The study was a new learning experience for the investigator. The result of the present study shows that there is significant gap in the knowledge and practice score on prevention and management of perineal tear among labour room nurses and hence there is need for a Standard Operating Protocol for the improvement of knowledge and practice regarding prevention and management of perineal tear. The content of the SOP covered preventive aspect and management aspect. The preventive aspect covers various steps of procedures. It includes maternal position pushing techniques, perineal massage, perineal warm packs, hands on-hands poised (or off) techniques. The management aspect covers systematic perineal assessment, perineal repair, reducing pain and the risk of infections and promoting perineal recovery. The proper knowledge and implementation of standard operating protocol will reduce the incidence of perineal tear and its complications.

6. Limitations

- The study was conducted with only one group of 30 samples, hence generalization of the result was limited to the population under study.
- The scope of this study is up to the development of standard operating protocol, this study does not cover the implementation of the prepared protocol.

7. Recommendations

Following studies can be undertaken with reference to present study.

1. Similar study can be carried out for preparing protocols in other clinical set ups.
2. A study can be conducted to assess the effect of prepared standard operating protocol.
3. More studies need to be conducted to know the association between knowledge and practice regarding prevention and management of perineal tear and with the variables.

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