



A STUDY TO ASSESS THE EFFECT OF VIDEO ASSISTED SKILL TRAINING ON SKILLS REGARDING USE OF SIMPLIFIED PARTOGRAPH AMONG THE NURSES WORKING IN SELECTED MATERNITY UNITS OF URBAN AREA.

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ABSTRACT

Objectives:

1. To assess the effect of Video assisted skill training on skills regarding use of simplified Partograph among the nurses working in selected maternity units of urban area.
2. To assess the existing skills regarding use of simplified partograph among nurses working in selected maternity units of urban area.
3. To find out association between pre-test skills score with selected demographic variables of nurses.

Material And Methods: An experimental study conducted by using quantitative approach with one group pretest- post-test pre experimental research design. The nurses working in selected maternity units was sample of study and by using non probability convenient sampling technique 60 nurses were selected for study. Data were collected by using observational checklist to assess the skills of nurses. Data analysed by using both descriptive and inferential statistics. **Results:** The findings of the study were analyzed by using frequency, percentage distribution, mean and standard deviation and inferential statistics such as chi square test, t test, ANOVA test were used for analyzing the data and proving the hypothesis. Most of the Nurses under study were between the age group of 20 - 40 years. In pre-test highest Skills score regarding Use of Simplified Partograph in Identification of Data i.e. 18.43 (76.79 %) whereas the lowest mean score was 1.38 which was 11.50 % of the total score was observed in the area of Decision making ability. The overall mean Skills score was 32.01 which was 40.01%. In post-test highest Skills score regarding Use of Simplified Partograph in Identification of Data i.e. 23.53 (98.04 %) whereas the lowest mean score was 8.51 which was 70.92 % of the total score was observed in the area of Intervention. The overall mean Skills score was 67.91 which was 84.89 %. The pre-test the mean of the Skills score obtained by the Nurses was 32.01 and in the post-test it rise to 67.91. The Skills score of the Nurses shows marked improvement after giving Video Assisted Skill Training. Thus the H_0 is accepted and H_1 is rejected. In pre-test 65 % of the Nurses had average level of Skills score and 21.67 % of Nurses had good level of Skills score. In post-test 10 % of the Nurses had good level of Skills score and 86.67 % of the nurses had excellent level of Skills score. The difference between pre-test and post-test level of Skills score is found to be statistically significant (χ^2 -value = 11.09). The 't' value between pre and post-test computed for Skills on Use of Simplified Partograph indicates that there is a significant improvement in scores from pre to post-test at 5 % level i.e. $p < 0.05$. Hence H_0 is rejected and H_1 is accepted. There was no significant association between Skills with selected demographic variables of Nurses working in maternity units in urban areas at 0.05 level. Hence H_{01} is rejected and H_2 is accepted. **Conclusion:** This study concluded that, Simplified partograph is the best option to identify the complications of labour and manage them properly. So in this study highlight that video assisted skill training method was is effective to improve skills of nurses regarding use of simplified partograph, which further helps to reduce maternal mortality and morbidity and achieve the Sustainable Development Goal by 2030.

KEYWORDS : Video assisted skill training, skills, Simplified partograph, nurses, maternity units, urban area.

INTRODUCTION/BACKGROUND:

"Maternal health remains a staggering challenge, particularly in the developing world. Globally, a woman dies from complications in childbirth every minute."

- Jessica Capshaw.

Labour is almost an overwhelming experience because it involves sensations and emotions at such an intense level. Women need supportive persons with them to help them to cope with their experience of labour. Labour and birth, need all psychological and physical coping methods available for a woman, no matter, how many childbirth preparations she had nor how many times she had already gone through the experience.

Dutta DC. (2018) "Labour is series of events that takes place in the genital organs in an effort to expel the viable products of conception out of the womb through the vagina into the outer world." In that product the foetus, placenta, liquor and membranes etc are involved. Labour is normal as well as abnormal process also. India has been placed among the countries, which are "slow progressor" in terms of mother and child health. New WHO global support says that globally one woman dies every minute due to complication during childbirth and pregnancy. Complications may arise during any of the stages of labour to result in abnormal labour. During the first stage, women may experience the arrest of parturition, necessitating caesarean delivery, which may carry greater maternal or foetal risk. Maternal death or

maternal mortality is the death of a pregnant mother due to complications related to pregnancy, underlying conditions worsened by the pregnancy or management of these conditions. This can occur either while they are pregnant or within six weeks of resolution of the pregnancy. Identification of pregnancy associated deaths is important for deciding whether or not the pregnancy was a direct or indirect contributing cause of the death.¹

There are two main measures used when talking about the rates of maternal mortality in a community or country. The WHO divides causes of maternal deaths into two categories: direct obstetric deaths and indirect obstetric deaths. Direct obstetric deaths are causes of death due to complications of pregnancy, birth or termination. For example, these could range from severe bleeding to obstructed labour, for which there are highly effective interventions. Indirect obstetric deaths are caused by pregnancy interfering or worsening an existing condition, like a heart problem.

Thakur A et al. (2022) published an article in Press Information Bureau on Significant decline in maternal mortality in India depicted that National Safe Motherhood Day 2023: NSMD is observed annually on 11 April to raise awareness about the proper healthcare of women and maternity facilities for pregnant and lactating women. This day also focuses on reducing anaemia among women, institutional delivery, better pre and postnatal health care etc. which are necessary for mothers. The government has not

announced the theme for this year's safe motherhood day officially. However, the theme is selected by the members of WRAI yearly who carry out full-scale campaign activities raising awareness about healthcare and maternity for pregnant and lactating mothers.²

Most of the maternal deaths during pregnancy or labour are caused by emergency conditions, where treatment is either delayed or unavailable to save the lives of woman. Prolonged labour is one of the main cause for maternal death. So prevention, early identification and prompt treatment of such condition can save the mother and child and to monitor this progress of labour Partograph is the effective tool given by the World Health Organization. The midwifery people should have knowledge on how to use or monitor the partogram.

Partogram is a composite graphical record of key data (maternal and foetal) during labour entered against time on a single sheet of paper. Relevant measurements might include statistics such as cervical dilation, foetal heart rate, duration of labour and vital signs. It is intended to provide an accurate record of the progress in labour, so that any delay or deviation from normal may be detected quickly and treated accordingly. The partograph or partogram has been established as the "gold standard" labour monitoring tool universally. It has been recommended by the World Health Organization (WHO) for use in active labour. The function of the partograph is to monitor the progress of labour and identify and intervene in cases of abnormal labour. The development of partograph provided health workers a pictorial overview of labour which can identify pathological labour to allow early intervention.

Most guidelines for normal human labour progress are derived from Friedman's clinical observations of women in labour. In 1954, he introduced the concept of partogram by graphically plotting cervical dilatation against time. The curve obtained was a sigmoid curve. He divided the first stage of labour into latent phase and active phase. Active phase was further divided into acceleration, maximum slope and deceleration. Philpott's partograph is an improved version of the labour curve. He introduced the alert line and action line. In 1987, WHO launched the safe motherhood initiative, since then WHO has published three different types of partographs. The first of these partograms also known as composite partograph includes latent phase of 8 hr and an active phase starting at 3-cm cervical dilatation. It has an alert line with a slope at 1 cm/h and the action line 4 hr to the right and parallel to alert line. It also provides space for recording descent of foetal head, maternal condition, foetal condition and medicines administered.

Chanda S. (2023) wrote a note on partograph in which she depicted that WHO modified the partograph in 2000, the latent phase was excluded, and the active phase commenced at 4-cm cervical dilatation. The other features remained the same. The reason for excluding the latent phase was more likelihood of interventions due to prolonged latent phase which was overdiagnosed. There was also difficulty reported in transferring the dilatation from latent phase to active phase. WHO further modified the partograph for the third time. This simplified partograph is colour-coded. The area to the left of the alert line is coloured *green* representing the normal progress. The area to the right of action line is coloured *red* indicating dangerously slow progress. The area between the alert and action line is coloured *amber* indicating the need for greater vigilance. In spite of the before mentioned important factors, the partogram is not used all over the world. Thus, educating the midwives to use the partogram correctly is a necessary. This will enhance the quality of midwife care in effectiveness and utilization aspects in health system.³

Recent scientific evidence shows that access and use of high quality emergency obstetric care is the key to reduce maternal

mortality. So, here midwives carry a huge responsibilities in helping women through the hard work and pain that is in labour. Yet what a privilege it is to help women and their partners to capture the excitement of bringing a new human being into the world. In today's health care environment, quality- nursing care is not just a goal of nursing profession, it's also an expectation of the public.

REVIEW OF LITERATURE

Bajwa HK et al. (2022) carried out a descriptive study to assess the knowledge, attitude and practices regarding partograph among 60 staff nurses selected by convenience sampling technique, working in Labour ward. A structured questionnaire for knowledge, Likert scale for attitude and checklist for practices regarding partograph. More than half of staff nurses (55%) had good knowledge, majority (90%) had positive attitude where as only 18.3% had practiced partograph. The association of knowledge with attitude ($p \leq 0.01$) and practices ($p < 0.05$) regarding partograph among staff nurses was found significant with a weak positive relationship between knowledge and attitude ($r = 0.455$; $p = 0.000$). The staff nurses had good knowledge so there is need to increase the skills and practices regarding partograph.³⁴

Busar PG et al. (2018) conducted a prospective study to assess the role of modified WHO partograph in management of labour in nulliparous patients with spontaneous onset of labour pain at a tertiary care Centre. 140 nulligravida women fulfilling the inclusion and exclusion criteria were included after written informed consent. Patient details, progression of labour after 4cm of cervical dilatation and monitoring of maternal and foetal condition was recorded on the WHO modified partograph in all patients. The majority 118(84.28%) delivered vaginally, 6 (4.28%) by assisted delivery and 22(15.71%) needed emergency LSCS. Maternal complications (3.57%) namely atonic PPH(2), extended episiotomy (2) and precipitate with complete perineal tear (1) were seen in case of abnormal progress of labour, all managed properly. There was no neonatal and maternal mortality. In a country like India, where still maternal morbidity and mortality rate is high, partograph use should be implemented in all hospitals and labour rooms for better obstetrics care and attain goal of improving maternal health.⁴⁵

RESULT:

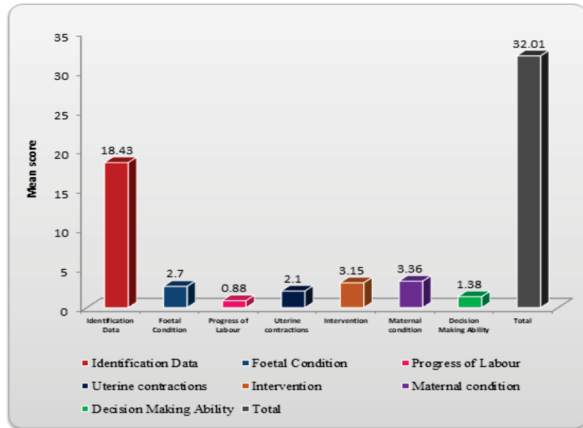
This section deals with the analysis of the data related to existing Skills of Nurses regarding Use of Simplified Partograph before implementation of Video Assisted Skill Training. The statistical values of means, mean score percentages and standard deviations are used to describe the scores.

Table 4.7: Assessment Of Existing Skills Score Of Nurses Regarding Use Of Simplified Partograph n=60

Category	Maximum score	Mean	Standard deviation	Mean percentage
Identification Data	24.00	18.43	4.22	76.79
Foetal Condition	07.00	2.70	2.48	33.75
Progress of Labour	03.00	0.88	0.99	22.00
Uterine contractions	06.00	2.10	1.61	26.25
Intervention	08.00	3.15	2.54	26.25
Maternal condition	10.00	3.36	2.6	28.00
Decision Making Ability	09.00	1.38	2.02	11.50
Total	54.00	32.01	10.23	40.01

The above table 4.7 depicts that the result of area wise pre-test Skills score regarding Use of Simplified Partograph among Nurses. In pre-test highest Skills score regarding Use of Simplified Partograph in Identification of Data i.e. 18.43 (76.79 %) where as the lowest mean score was 1.38 which was 11.50

% of the total score was observed in the area of Decision making ability. The overall mean Skills score of pre-test was 32.01 which was 40.01%.



(Post Test) n=60

Figure 4.7: Assessment of existing Skills score of Nurses regarding Use of Simplified Partograph

It Deals with analysis of data related to assessment of the knowledge regarding aspiration pneumonia among mothers of infant in selected hospitals Maharashtra in terms of frequency and percentage.

Table 4.8: Assessment Of Skills Score Of Nurses Regarding Use Of Simplified Partograph After Giving Video Assisted Skill Training n = 60

Category	Maximum score	Mean	Standard deviation	Mean percentage%
Identification Data	24.00	23.53	1.29	98.04
Foetal Condition	08.0	7.51	1.01	93.88
Progress of Labour	04.00	3.01	0.79	75.25
Uterine contractions	08.00	6.36	1.47	79.50
Intervention	11.00	8.51	1.85	70.92
Maternal condition	12.00	10.35	2.04	86.25
Decision Making Ability	12.00	8.61	2.27	71.75
Total	77.00	67.91	7.57	84.89

The above table 4.8 depicts that the result of area wise post-test Skills score regarding Use of Simplified Partograph among Nurses. In post-test highest Skills score regarding Use of Simplified Partograph in Identification of Data i.e. 23.53 (98.04 %) whereas the lowest mean score was 8.51 which was 70.92 % of the total score was observed in the area of Intervention. The overall mean Skills score was 67.91 which was 84.89 %.

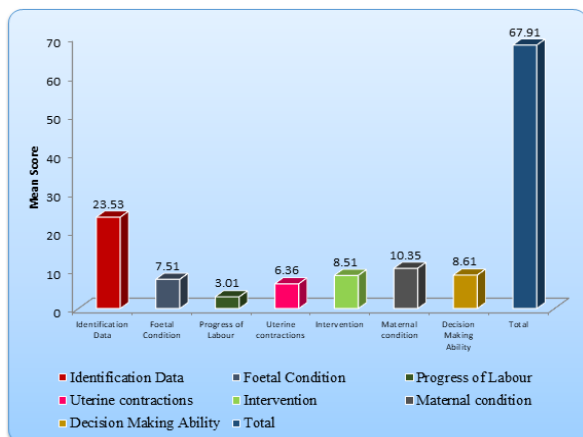


Figure 4.8: Assessment of Skills score of Nurses regarding Use of Simplified Partograph after giving Video Assisted Skill Training.

Table 4.9: Significance of Skills score regarding Use of Simplified Partograph of Nurses before and after Video Assisted Skill Training. n=60

Overall	Maximum score	Mean	Standard deviation	Mean percentage	t-value	p-value
Pre-test	54.00	32.01	10.23	40.01	28.03	0.000 S,
Post-test	77.00	67.91	7.57	84.89		p<0.05

(S = Significant at 0.05 level of significance)

The above table 4.9 depicts that in the pre-test the mean of the Skills score obtained by the Nurses was 32.01 and in the post-test it rise to 67.91. The Skills score of the Nurses shows marked improvement after giving Video Assisted Skill Training. From the above table, it is evident that the calculated 't' value is greater than the table value of 't' (1.67) at 0.05 level.

Hence it is statistically interpreted that the Video Assisted Skill Training on Skills regarding Use of Simplified Partograph among Nurses was effective. Thus the H_0 is rejected and H_1 is accepted.

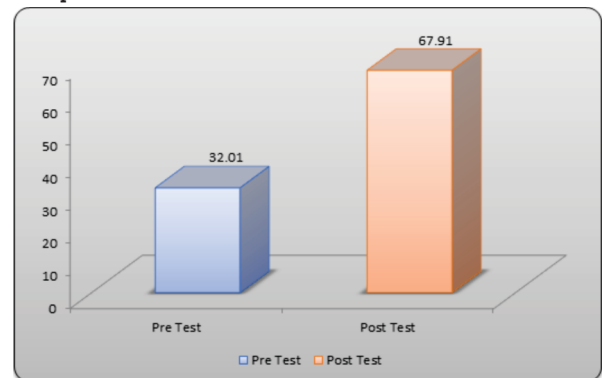


Figure 4.9: Significance of Skills score regarding Use of Simplified Partograph of Nurses before and after Video Assisted Skill Training.

Table 4.11: Level Of Skills Score Of Nurses In Pre And Post-test n=60

Level of Skills Score	Pre-test F	Pre-test %	Post-test F	Post-test %	χ^2 value	p-value
Poor	08	13.33	00	00	11.09	p < 0.0001, Significant
Average	39	65.00	02	3.33		
Good	13	21.67	06	10.00		
Excellent	00	00	52	86.67		

(Significant at 0.05 level of significance)

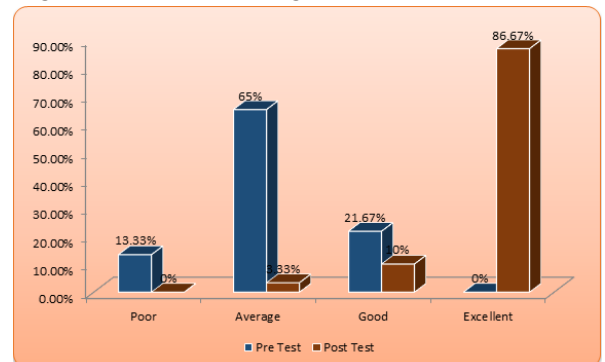


Figure 4.11: Level of Skills score of Nurses pre and post-test

This section dealt with the analysis of data to determine the level of pretest and post-test Skills score of the Nurses. The level of Skills score is divided under above heading of poor, average, good and excellent. Association of level of Skills score is calculated by using Chi-square test.

The table no.4.11 depicts that the, In pre-test 65 % of the Nurses had average level of Skills score and 21.67 % of Nurses had good level of Skills score. In post-test 10 % of the Nurses had good level of Skills score and 86.67 % of the nurses had excellent level of Skills score. The difference between pre-test and post-test level of Skills score is found to be statistically significant (χ^2 -value= 11.09).

ASSOCIATION OF PRE-TEST SKILLS SCORE OF NURSES WITH THEIR DEMOGRAPHIC VARIABLES

This section deals with significance of difference of pre-test Skills score in relation to their Age, Professional Qualification, Total year of experience, Previous experience in maternity units, if yes how many years, having previously attended same session and so on.

1. Two group comparisons are done by using the 't' test.
2. Three group and more group comparisons are done by using the one way ANOVA.

Table 4.12: Association Of Pre-test Skill Score Regarding Use Of Simplified Partograph Among Nurses In Relation To Their Age n=60

Age in years	No. of Nurses	Pre-test Skill score	F-value	p-value
20-30years	23	32.34 $\pm$ 12.11	0.15	0.86 NS, p>0.05
31-40years	30	32.23 $\pm$ 9.21		
41-50 years	07	30.00 $\pm$ 8.60		
51 and Above	00	00 $\pm$ 00		

This table 4.12 shows the association of Skill score with age in years of Nurses. The tabulated 'f' values was 2.77 (df=3,56) which is higher than the calculated 'f' i.e. 0.15 at 5% level of significance. Also the calculated 'p'=0.86 which was higher than the acceptable level of significance i.e. 'p'=0.05. Hence it is interpreted that age in years of nurses is statistically not associated with their pre-test Skill score. **Hence H_{01} is accepted and H_2 is rejected.**

Table 4.13: Association Of Pre-test Skill Score Regarding Use Of Simplified Partograph Among Nurses In Relation To Their Educational Qualification n=60

Educational Qualification	No. of Nurses	Pre-test Skill score	F-value	p-value
ANM	00	00 $\pm$ 00	0.029	0.97 NS, p>0.05
GNM	26	32.34 $\pm$ 8.71		
B.Sc. Nursing	27	31.66 $\pm$ 11.49		
M.Sc. Nursing	07	32.14 $\pm$ 11.85		

This table 4.13 shows the association of Skill score with Educational Qualification of Nurses. The tabulated 'f' values was 2.77 (df=3,56) which is higher than the calculated 'f' i.e. 0.02 at 5% level of significance. Also the calculated 'p'=0.97 which was higher than the acceptable level of significance i.e. 'p'=0.05. Hence it is interpreted that Educational Qualification of Nurses is statistically not associated with their pre-test Skill score. **Hence H_{01} is accepted and H_2 is rejected.**

Table 4.14: Association Of Pre-test Skill Score Regarding Use Of Simplified Partograph Among Nurses In Relation To Their Years Of Experience As Staff Nurse n=60

Years of Experience as Staff Nurse	No. of Nurses	Pre-test Skill score	F-value	p-value
Less than 5 years	22	32.68 $\pm$ 11.24	2.23	0.09 NS, p>0.05
6 - 10 Years	15	31.26 $\pm$ 11.94		
11 - 15 Years	10	37.90 $\pm$ 5.70		
More than 16 years	13	27.23 $\pm$ 6.93		

This table 4.14 shows the association of Skill score with Years of Experience as Staff Nurse The tabulated 'f' values was 2.77 (df=3,56) which is higher than the calculated 'f' i.e. 2.23 at 5% level of significance. Also the calculated 'p'=0.09 which was higher than the acceptable level of significance i.e. 'p'=0.05. Hence it is interpreted that Years of Experience as Staff Nurse

is statistically not associated with their pre-test Skill score. **Hence H_{01} is accepted and H_2 is rejected.**

Table 4.15: Association Of Pre-test Skill Score Regarding Use Of Simplified Partograph Among Nurses In Relation To Previous Experience In Maternity Units n=60

Previous experience in maternity units	No. of Nurses	Pre-test Skill score	t-value	p-value
Yes	46	31.63 $\pm$ 9.41	0.27	0.60 NS, p>0.05
No	14	33.28 $\pm$ 12.91		

This table 4.15 shows the association of Skill score with Previous experience in maternity units. The tabulated 't' values was 1.67 (df=59) which is higher than the calculated 't' i.e. 0.27 at 5% level of significance. Also the calculated 'p'=0.60 which was higher than the acceptable level of significance i.e. 'p'=0.05. Hence it is interpreted that Previous experience in maternity units of Nurses is statistically not associated with their pre-test Skill score. **Hence H_{01} is accepted and H_2 is rejected.**

Table 4.16: Association Of Pre-test Skill Score Regarding Use Of Simplified Partograph Among Nurses In Relation To Years Of Experience In Maternity Unit n=46

Years of experience in Maternity unit	No. of Nurses	Pre-test Skill score	F-value	p-value
Less than 2 years	26	31.46 $\pm$ 9.96	0.20	0.93 NS, p>0.05
3 - 5 Years	09	30.00 $\pm$ 10.85		
6 - 8 Years	05	34.00 $\pm$ 8.86		
More than 8 years	06	32.83 $\pm$ 6.14		

This table 4.16 shows the association of Skill score with Years of experience in Maternity unit of Nurses. The tabulated 'f' values was 2.77 (df=3,56) which is higher than the calculated 'f' i.e. 0.20 at 5% level of significance. Also the calculated 'p'=0.93 which was higher than the acceptable level of significance i.e. 'p'=0.05. Hence it is interpreted that Years of experience in Maternity unit of Nurses is statistically not associated with their pre-test Skill score. **Hence H_{01} is accepted and H_2 is rejected.**

Table 4.17: Association Of Pre-test Skill Score Regarding Use Of Simplified Partograph Among Nurses In Relation To Attained Any In Service Programme On Partograph n= 60

Attained any In service programme on Partograph	No. of Nurses	Pre-test Skill score	F-value	p-value
Yes	16	34.18 $\pm$ 10.76	0.98	0.32 NS, p>0.05
No	44	31.22 $\pm$ 10.04		

This table 4.17 shows the association of Skill score with Attained any In service programme on Partograph of Nurses. The tabulated 'f' values was 2.01 (df=59) which is higher than the calculated 'f' i.e. 0.98 at 5% level of significance. Also the calculated 'p'=0.32 which was higher than the acceptable level of significance i.e. 'p'=0.05. Hence it is interpreted that Attained any In service programme on Partograph of Nurses is statistically not associated with their pre-test Skill score. **Hence H_{01} is accepted and H_2 is rejected.**

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