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### RESEARCH ARTICLE

#### KNOWLEDGE, ATTITUDE AND PRACTICES OF DOCTORS AND NURSING STAFF OF WHO INTRAPARTUM CARE GUIDELINES

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#### Abstract

This cross-sectional study, conducted over a year in a tertiary care center in Delhi, aimed to assess knowledge and adherence to WHO intrapartum care guidelines among 200 doctors and 200 nurses. The study utilized self-administered questionnaires and focused group discussions to identify knowledge gaps and application constraints. Results indicated that doctors exhibited better knowledge of the guidelines than nurses, with more experienced professionals scoring higher. Specifically, questions regarding the duration of the latent phase and cervical dilation posed difficulties, especially for nurses. Only 36% of doctors and 16% of nurses correctly answered knowledge-based questions. Furthermore, doctors demonstrated superior practical application of the guidelines, particularly in areas like fundal pressure and episiotomy in primigravida. The study highlighted a significant association between higher education, experience, and better outcome. The findings underscore the necessity for continuous training and practice to enhance adherence to WHO guidelines, ultimately aiming to improve maternal and neonatal outcomes. Enhanced training and monitoring are recommended to bridge the identified gaps and ensure evidence-based intrapartum care practices are universally applied.

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#### Introduction:-

Pregnancy is related to several complications, and the risk of mortality and morbidity among pregnant women increases considerably with time and gestation. The timing of birth and events occurring during childbirth is critical for the survival of both mother and baby as risks could increase and complications can arise. Although majority of women deliver without any risks or complications, there is a need of proper guidelines among healthcare workers for early identification and management of these high-risk cases. These guidelines can help healthcare workers and midwives in following certain protocols during childbirth which can smoothen this experience for mothers.

There is a large variation among healthcare workers in labor practices in India. These may include initiation, augmentation, process, termination, all aiming to improve outcome of mother and baby. These outcomes not only effect childbirth experience but also determine maternal and fetal health in long run. These practices differ considerably among PHC, district hospitals and tertiary care hospitals.

In order to combat these problems WHO has come up with latest intrapartum guidelines which can be easily followed in all levels among healthcare workers and midwives. The recommendations in these guidelines are evidence based and universal and are not affected by variations in regions or demographics. These guidelines

establish norms among practices which are commonly used during normal uncomplicated delivery. The main aim of these guidelines is to improve maternal and neonatal outcome among majority of women without any complications.

### Material and Methods:-

1. It was a cross-sectional study conducted in a tertiary care Centre of Delhi in a span of 1 year from 2022 to 2023 and included 200 Doctors and 200 Nurses. Data was collected with the help of self-administered questionnaire which was filled by whole team of doctors and nurses posted in labor room in the middle of their posting.
2. Focused Group Discussions were administered for some gap in knowledge or constraint in application of some important practice.

### Results:-

A total of 200 doctors and 200 nurses participated in this study. Most of the doctors and nurses were less than 30 years of age.

AGE	DOCTORS (200)	NURSES (200)
Less than 30	147	98
30-40	42	77
40-50	9	19
More than 50	2	6

Among doctors' postgraduate students participated the most (87) while among nursing staff; maximum staff nurses (137) had given their response.

PROFESSION	TOTAL-400
CONSULTANT	11
SENIOR RESIDENTS	53
POST GRADUATE	87
INTERNS	49
NURSING STUDENTS	63
STAFF NURSES	137

EXPERIENCE IN YEARS	DOCTORS (200)	NURSES (200)
Less than 5	136	73
5-10	38	104
10-20	15	17
More than 20	11	6

11 consultants had participated who had experience of more than 20 years.

When knowledge regarding WHO intrapartum care guidelines was assessed, it was found that doctors had better knowledge as compared to nurses. With increased years of experience doctors had scored better.

On assessing the questionnaire on knowledge regarding WHO intrapartum care guidelines it was found that participants found difficulty in answering duration of latent phase and dilatation of cervix.

Regarding questionnaire based on knowledge doctors had scored better. Nurses found difficulty in answering questions related to duration of active and latent phase in both primigravida and multigravida (4%-15%) as compared to doctors (5%-22%). Regarding administration of Vitamin K; 62% doctors gave correct answers as compared to 33% nurses. Doctors (10%) and nurses (8%) found it difficult to answer recommended dilatation of cervix/hour by WHO. Only 18% nurses were aware of importance of birth companion as compared to 55% doctors. About questionnaire based on attitude; doctors scored much better than nurses.

Doctors had scored better in practices part of questionnaire regarding WHO intrapartum care guidelines. Fundal pressure, episiotomy in primigravida, routine use of oxytocin in AMTSL, delivery position were among few questions in which doctors answered better.

KNOWLEDGE	TOTAL NUMBER OF DOCTORS(200)	TOTAL NUMBER OF NURSES(200)	DOCTORS [%]	NURSES [%]
Do you know about respectful maternity care-	104	92	52	46
What is the recommended duration of latent phase in primigravida	16	8	8	4
What is the recommended duration of latent phase in multigravida	10	4	5	2
What is the recommended duration of active phase in primigravida	44	30	22	15
What is the recommended duration of active phase in multigravida	30	14	15	7
From what dilatation of cervix active phase is considered-	64	18	32	9
What is the recommended dilatation of cervix/hour by WHO-	20	16	10	8
What is duration of second stage of labour	38	20	19	10
Is antibiotics necessary in episiotomy	74	34	37	17
1 mg of vitamin K intramuscularly in healthy new born is recommended	124	66	62	33
Routine use of programmed labour and routine amniotomy is not recommended	60	30	30	15
PC Enema, perineal shaving and cleaning of vagina with chlorhexidine is not recommended	84	52	42	26
Do you know about any other oxytocic other than oxytocin	90	24	45	12
Is Fetal cardiotocography recommended in low risk patient in active phase of labour-	44	28	22	14
<b>ATTITUDE</b>				
Do you agree that birth companion/ relative should accompany women in labour room	110	36	55	18
Do you agree Fetal cardiotocography should be done in all patients patient in active phase of labour	60	12	30	6
Do you agree pain relief with parenteral opioids or epidural analgesia should be offered to all labouring women	116	40	58	20
Do you think woman should rest in bed during entire labour	60	24	30	12
Do you think IV hydration is a must during labour	40	16	20	8
<b>PRACTICES</b>				
Do you auscultate foetal heart for 2 minutes at stipulated interval in first and second stage	78	40	39	20
Do you allow labouring women to deliver in position of their own choice	64	20	32	10
Do you give episiotomy in all primigravida	40	26	20	13
Do you apply fundal pressure	136	36	68	18
Do you routine use of oxytocin 10 IU im/iv in active management of third stage of labour	152	40	76	20
Do you practice delayed cord clamping means clamping	74	40	37	20

Do you always do uterine massage after infusion of oxytocin	40	38	20	19
Do you always explain danger signs to woman and relatives	120	56	60	28
In how many percentage you explain cord care and breast feeding	130	36	65	18
Skin to skin care is done in how many percentage of patients	94	40	47	20

Our study had confirmed an association between education status and experience in years with outcome. Hence consultants and senior staff nurses who had more experience had answered better as compared to junior doctors, interns, staff nurses and nursing students.

### Discussion:-

According to our study doctors had better knowledge regarding WHO intrapartum care guidelines with 36% doctors answering correctly as compared to nurses in whom only 16% had known correct facts.

This was similar to a studies in which healthcare workers were found to have low knowledge regarding intrapartum care guidelines(1)(2)(3).

Our study had confirmed an association between education status and experience in years with outcome. Hence consultants and senior staff nurses who had more experience had answered better as compared to junior doctors, interns, staff nurses and nursing students. This was similar to a study done in Ethiopia(3). This was different as compared to studies conducted in Pune and Meerut where there was no association found with experience and educational qualification(2)(4). The difference may be due to population selection and collection of data.

Knowledge part of questionnaire was answered correctly by 28% doctors and 15% nurses. Maximum difficulty was found in questions related to duration of active and latent phase and dilatation of cervix. This was similar to a study conducted in Cambodia and Ethiopia where more than half of the healthcare workers were not aware of these intrapartum care(1).

Mean for attitude regarding intrapartum care was also with only 77(38.5%) doctors and 25(12.8%) nurses were aware of correct answers. Nurses found difficulty in answering role of fetal cardiotocography and role of iv hydration in labor.

Regarding question related to practices, healthcare workers found difficulty in answering questions regarding delivery position and episiotomy in primigravida. Mean for doctors and nurses who answered correctly were 46% and 16% respectively. These were similar to many studies who had similar statistics(3)(5).

Lack of training and awareness about these intrapartum guidelines resulted in poor outcomes in our study. Our study consisted mostly junior doctors and junior staff nurses who were not aware of basic principles of intrapartum care hence leading to less than half of the participants answering correctly.

Another limitation of our study was that most of our participants were still trainees as out of 400 participants 87 were postgraduate trainees, 49 were interns and 63 were nursing students; hence they were not aware of these e latest guidelines and needed additional training for best practices.

### Conclusion:-

We found that less than half of our healthcare workers were aware of WHO intrapartum care guidelines. Hence to bridge the gap proper continues training and practice is required.

Good knowledge on intrapartum care practice, positive attitude towards intrapartum care practice, availability of updated intrapartum guidelines were factors significantly associated with evidence based intrapartum care practice and better obstetric outcomes. These findings indicate that additional attention, training, and monitoring are required to implement current WHO intrapartum care practices to improve quality of care.

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