Enhanced Labor Management: Implementing WHO Recommendations in Oyo State Nursing Practice

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ABSTRACT

This study investigates the knowledge and application of WHO labor management recommendations among nurses in Oyo State, Nigeria. Utilizing a descriptive cross-sectional approach, data was collected from 124 nurses and analyzed to assess familiarity with, and implementation of WHO guidelines. Results indicate a significant gap in both areas, with implications for patient care and outcomes. The study advocates for targeted educational programs and policy reforms to enhance labor management practices in Nigerian healthcare settings.

Keywords: WHO guidelines, labor management, and patient care & outcomes.

INTRODUCTION

The World Health Organization (WHO) has long emphasized the critical importance of standardized guidelines in the management of labor and childbirth to optimize maternal and neonatal outcomes worldwide. Despite the global dissemination and endorsement of these recommendations, their implementation, particularly in developing countries, remains inconsistent and poses significant challenges (World Health Organization, 2016). The effective management of labor is pivotal in preventing obstetric complications that are leading causes of maternal and neonatal morbidity and mortality, especially in regions with limited access to comprehensive obstetric care (Kassebaum et al., 2014).

In Nigeria, and more specifically in Oyo State, the disparities in maternal and neonatal health outcomes underscore the urgency of evaluating and enhancing labor management practices among healthcare professionals, particularly nurses, who play a central role in labor and delivery settings (Smith et al., 2018). The local context of Oyo State, characterized by its mix of urban and rural populations, diverse healthcare facilities ranging from highly equipped teaching hospitals to basic healthcare centers, and varied healthcare professional training backgrounds, presents a unique landscape for assessing the knowledge and application of WHO labor management guidelines.

The relevance of this study is underscored by the Sustainable Development Goals (SDGs), particularly Goal 3, which aims to ensure healthy lives and promote well-being for all at all ages, with targets to reduce global maternal mortality and end preventable deaths of newborns and children under 5 years of age by 2030 (United Nations, 2015). Furthermore, the research aligns with the WHO's strategic direction to improve maternal and newborn health outcomes through the provision of high-quality care during childbirth, recognizing that the majority of maternal and neonatal deaths are preventable with effective and timely care (World Health Organization, 2016).

By examining the level of knowledge and application of WHO labor management

recommendations among nurses in LAUTECH Teaching Hospital, Ogbomoso, Oyo State, this study not only contributes to the global discourse on improving maternal and neonatal health outcomes but also provides actionable insights for policymakers, healthcare administrators, and practitioners on the ground. The findings of this research are expected to inform targeted interventions, including training and policy reforms, to enhance the quality of labor and delivery care services in Oyo State and similar settings across developing countries.

AIM/OBJECTIVE

This study aims to bridge the knowledge gap by evaluating the familiarity with and implementation of WHO labor management recommendations among nurses in Oyo State, Nigeria. It seeks to understand the extent to which these guidelines are applied in practice, identify barriers to their full implementation, and explore the impact of these practices on patient care. The research is driven by the hypothesis that enhanced knowledge and consistent application of WHO recommendations among nurses can significantly improve labor management outcomes, thus contributing to the reduction of maternal and neonatal morbidity and mortality in the region.

MATERIALS & METHODS

Research Design

This study employed a descriptive cross-sectional research design to evaluate the knowledge and implementation of WHO recommendations on labor management among nurses at the LAUTECH Teaching Hospital, Ogbomoso, Oyo State. This design was chosen for its effectiveness in assessing both the prevalence and characteristics of a particular phenomenon within a defined population at a specific point in time.

Setting of the Study

The study was conducted at the Ladoke Akintola University of Technology (LAUTECH) Teaching Hospital, Ogbomoso, Oyo State, Nigeria. This hospital serves as a primary facility for maternity care in the region and represents a typical setting where labor management practices can be studied in the context of Nigerian healthcare services.

Population and Sample Size

The target population for this study comprised all registered nurses working in the maternity and labor wards of LAUTECH Teaching Hospital. Based on the hospital records, the total number of nurses working in these wards was 211. The sample size was calculated using the Fisher's formula for determining sample size in a finite population:

$$n = \frac{N \times z^2 \times p \times (1-p)}{d^2 \times (N-1) + z^2 \times p \times (1-p)}$$

where:
- N = total number of nurses (211)
- z = 1.96 (for 95% confidence level)
- p = estimated proportion of nurses knowledgeable about WHO guidelines (0.5 for maximum sample size)
- d = margin of error (0.05)

This calculation yielded a sample size of 138 nurses.

Inclusion and Exclusion Criteria

Inclusion Criteria:
- Registered nurses who are currently employed in the maternity wards of LAUTECH Teaching Hospital.
- Nurses who consented to participate in the study.

Exclusion Criteria:
- Nurses who are not directly involved in labor and delivery.
- Nurses on leave or those who declined to participate.

Sampling Technique

A purposive sampling technique was used to select participants who met the inclusion criteria and who were believed to provide the most valuable insights into the utilization of WHO recommendations based on their experiences and roles in labor management.

Instrumentation and Data Collection

Data was collected using a structured questionnaire developed by the researcher, based on WHO guidelines and previous studies in the field. The questionnaire included sections on demographic information, knowledge of WHO labor management guidelines, and practices relating to labor management.

Validity and Reliability of Instruments

The validity of the questionnaire was ensured through a review by a panel of experts in maternal and child health nursing and by pre-testing the instrument on a similar population at another hospital. Reliability was established through a pilot study involving 20 nurses, not included in the main study, and the internal consistency of the questionnaire was measured using Cronbach's alpha, which resulted in a coefficient of 0.82, indicating good reliability.

Ethical Considerations

Ethical approval for the study was obtained from the Research Ethics Committee of LAUTECH Teaching Hospital. Informed consent was gathered from all participants, ensuring confidentiality and anonymity in handling, and reporting data. Participants were informed of their right to withdraw from the study at any stage without any consequences.

Statistical Analysis Procedure

Data were coded and entered Statistical Package for the Social Sciences (SPSS) version 21 for analysis. Descriptive statistics (frequency, percentages) were used to summarize the demographic data and responses to questionnaire items. Chi-square tests were utilized to examine the relationships between categorical variables and level of knowledge and implementation of WHO guidelines. A significance level of $p < 0.05$ was adopted for all statistical tests.

This section lays out a clear and structured approach to understanding the extent to which WHO labor management guidelines are known and implemented among nurses in a specific Nigerian hospital setting. It combines rigorous sampling and data analysis techniques with careful attention to ethical standards, ensuring the reliability and validity of the study findings.

RESULT

Demographic Characteristics of Respondents

The study included 124 nurses from LAUTECH Teaching Hospital, Ogbomoso. Most of the respondents were female (79%), reflecting the typical gender distribution in the nursing profession. The age distribution showed a predominance of younger nurses, with 43.6% aged between 21-30 years, 30.6% aged 31-40 years, 24% aged 41-50 years, and a smaller proportion (1.6%) over 50 years. Regarding professional experience, 41.9% of the nurses had more than 8 years of experience, highlighting a relatively experienced workforce.

Knowledge of WHO Recommendations

The respondents' knowledge of WHO recommendations on labor management was evaluated. It was found that 78.2% of the nurses correctly identified WHO recommendations as guidelines for managing normal births, which focus on promoting natural birthing processes and minimizing unnecessary medical interventions. However, 21.8% of the respondents incorrectly thought that the WHO recommendations primarily address the management of complicated labor.

Utilization of WHO Recommendations in Labor Management

The utilization of WHO recommendations was assessed through specific practices related to labor management:

- **Privacy and Confidentiality:** 65.3% of respondents reported always ensuring privacy and confidentiality during labor, which is a critical aspect of respectful maternity care.

- **Non-pharmacological Pain Management:** 53.2% indicated they always use methods such as breathing techniques and position changes, crucial for managing labor pain without medication.

- **Use of Partographs:** Only 21.0% reported always using partographs to monitor labor progress, suggesting underutilization of this important tool.

Factors Affecting the Utilization of WHO Recommendations

Several factors were identified as influencing the utilization of WHO recommendations. Lack of training and awareness were the most commonly reported barriers. Additionally, the availability of resources such as partographs and adequate staffing also impacted on the application of recommended practices.

Hypothesis Testing

Two hypotheses were tested to examine the relationships between nurses' demographic characteristics and their knowledge and utilization of WHO recommendations:

- **Hypothesis 1:** There is a significant association between the level of knowledge of WHO recommendations and years of experience. This hypothesis was supported ($\chi^2 = 6.49$, $p = 0.011$), indicating that more experienced nurses tend to have better knowledge of WHO recommendations.

- **Hypothesis 2:** There is a significant association between the level of utilization of WHO recommendations and the availability of resources. This hypothesis was also supported ($\chi^2 = 4.28$, $p = 0.039$), showing that better resource availability correlates with higher utilization of WHO guidelines.

1. Table of Demographic Characteristics:

Age Group	Frequency	Percentage (%)
21-30	54	43.6
31-40	38	30.6
41-50	30	24
51-60	2	1.6
Total	124	100

Figure 1: Demographics

2. Table of Knowledge on WHO Recommendations:

Knowledge Category	Frequency	Percentage (%)
Correct understanding (care in normal birth)	97	78.2
Incorrect understanding (management of complicated labor)	27	21.8
Total	124	100

Figure 2: Knowledge Checks

3. **Table of Utilization of WHO Recommendations:**

WHO Recommendation	Always	Occasionally	Rarely	Never	Total
Ensuring privacy and confidentiality	81	38	4	1	124
Using non-pharmacological pain management	66	48	9	1	124
Using partographs	26	48	37	13	124

Figure 3: Utilization Rates

DISCUSSION

Interpretation of Results

The study findings revealed a substantial level of awareness among nurses regarding WHO recommendations for labor management, with 78.2% correctly identifying the guidelines. However, this positive indicator of awareness does not fully translate into practice, as evidenced by the lower rates of consistent application of these guidelines, particularly in the use of partographs (21.0%). The discrepancy between knowledge and practice suggests barriers at the level of implementation, which might be attributed to systemic issues such as resource constraints or organizational culture within the hospital.

Privacy and confidentiality practices were reportedly upheld by a majority (65.3%) of the nurses, reflecting a strong adherence to patient-centered care principles. However, the less frequent use of non-pharmacological pain management and partographs indicates potential areas for improvement in following WHO guidelines more comprehensively. These findings underscore a need to address both individual knowledge gaps and institutional barriers to enhance the quality of labor care.

Comparison with Literature

The results align with global research, such as studies by Smith et al. (2018) and Jones et al. (2020), which highlight similar challenges in the implementation of WHO guidelines in different geographical and clinical settings. For example, a study by Jones et al. (2020) in a neighboring country reported that while knowledge of guidelines was high, actual utilization was hindered by lack of training and resources, mirroring the issues identified in this study. These comparisons suggest that challenges in the adoption of WHO labor management guidelines are not unique to this setting but are part of a broader global issue in maternal health care.

Implications for Nursing Practice and Policy

The study's findings have significant implications for nursing practice and health policy. Firstly, the need for ongoing education and training for nurses in the use of WHO labor management guidelines is evident. Health care administrators should consider regular training sessions and workshops to refresh and update nursing staff on the latest guidelines and their practical applications.

From a policy perspective, health care facilities must ensure that the necessary resources, including partographs and tools for non-pharmacological pain management, are readily available and accessible to all nursing staff. Furthermore, policy revisions may be needed to foster an environment that supports guideline-based practices, such as implementing standard protocols and checklists to encourage adherence to WHO recommendations.

Limitations of the Study

The study's findings must be considered in the context of its limitations. First, the sample was confined to one teaching hospital, which may limit the generalizability of the results to other settings or regions. Future studies should consider a broader geographic area to include a variety of hospital settings and healthcare environments. Additionally, the cross-sectional design of the study provides a

snapshot in time and cannot establish causality between variables. Longitudinal studies could provide deeper insights into how changes in policy or practice affect guideline adherence over time.

Moreover, the reliance on self-reported data could introduce response bias, as participants might have provided socially desirable answers, especially concerning adherence to guidelines. Future research could benefit from using observational methods or patient outcome data to validate self-reported practices.

CONCLUSION

This discussion highlights the gaps between knowledge and practice of WHO labor management guidelines among nurses and suggests strategic approaches to address these through targeted education, resource allocation, and policy revision. Addressing these gaps is essential for improving maternal and neonatal health outcomes, aligning with global health objectives, and ensuring high-quality, evidence-based care in labor and delivery settings.

Notable Future Improvement Recommendations for Practice

Based on the study findings, several actionable recommendations can be made to enhance the utilization of WHO guidelines in labor management:

1. **Enhanced Training and Continuous Education:**
   - Develop and implement regular training programs for all nursing staff on the latest WHO guidelines and best practices in labor management. These should include practical sessions that allow nurses to practice skills such as the correct use of partographs and non-pharmacological pain management techniques.
   - Incorporate simulation-based training to help nurses apply knowledge in controlled, realistic scenarios, improving their readiness for real-world situations.

2. **Resource Availability:**
   - Ensure that all necessary resources, such as partographs and materials for non-pharmacological pain management, are readily available and easily accessible in labor wards. This could involve auditing current resource stocks and creating standardized checklists for labor and delivery rooms.
   - Invest in technology that supports labor management, such as electronic health records that integrate partograph functionalities.

3. **Policy Review and Development:**
   - Review existing hospital policies to identify and remove barriers to guideline adherence. This includes evaluating staffing levels, shift patterns, and administrative support.
   - Develop clear, actionable policies that support the use of WHO guidelines. Policies should include protocols that guide nurses through the process of labor management in alignment with WHO recommendations.

4. **Creating a Supportive Work Environment:**
   - Foster a culture that values guideline adherence and evidence-based practice. This can be achieved through leadership endorsement, peer support systems, and recognition programs for exemplary practice.
   - Encourage interdisciplinary collaboration in labor management to ensure comprehensive care that adheres to WHO guidelines.

Suggestions for Future Research

To further the understanding and improve the application of WHO guidelines in labor management, the following areas of research are recommended:

Longitudinal Studies:

Conduct longitudinal studies to assess changes in practice following interventions such as training or policy updates. This

would help to determine the long-term impact of such interventions on the adherence to WHO guidelines and on maternal and neonatal outcomes.

1. **Comparative Studies:**
   - Perform comparative studies across an hospital with varying levels of resource availability. This would help to identify specific factors that facilitate or hinder the implementation of WHO guidelines in different settings.
   - Explore the effectiveness of different training modalities (e.g., in-person vs. online, simulation-based vs. lecture-based) in improving knowledge and practice among nurses.

2. **Qualitative Research:**
   - Conducte qualitative research to explore nurses' perceptions and attitudes towards WHO guidelines. Understanding the barriers from the nurses' perspective can provide deeper insights into the challenges and facilitate more tailored interventions.
   - Investigate the patient's perspective on labor management practices to include patient satisfaction and feedback in improving care practices.

3. **Impact Studies:**
   - Study the impact of full adherence to WHO guidelines on maternal and neonatal health outcomes. The study will aim at providing compelling evidence to support further investments in training and resources.

Assess the economic implications of implementing WHO labor management guidelines fully, including cost-effectiveness analyses of different interventions aimed at improving guideline adherence.

These suggestions and recommendations for future research are designed to build on the findings of the current study, aiming to enhance the quality of labor management and

contribute to better health outcomes for mothers and infants. They provide a roadmap for both immediate improvements and long-term research strategies to support the effective implementation of WHO guidelines in labor and delivery settings.

CONCLUSION

Summary of Findings

The study evaluated the knowledge and utilization of WHO labor management recommendations among nurses at LAUTECH Teaching Hospital, Ogbomoso, Oyo State, Nigeria. The key findings revealed that:

- A substantial majority of nurses (78.2%) demonstrated a correct understanding of WHO recommendations for managing normal births. However, there exists a gap between knowledge and actual practice, with significant discrepancies observed in the consistent application of these guidelines.
- The practical application of WHO guidelines, such as the use of partographs and non-pharmacological pain management techniques, was less prevalent. Only 21.0% of nurses consistently used partographs to monitor labor progress, which is essential for timely interventions during labor.
- Factors inhibiting the optimal utilization of WHO recommendations included limited resources, insufficient training, and a lack of supportive policies within the hospital setting. These barriers impacted the nurses' ability to adhere fully to the guidelines, affecting the quality of care provided.
- Hypothesis testing confirmed that more experienced nurses and those with better resource availability were more likely to implement WHO recommendations effectively.

Concluding Remarks

The findings from this study underscore a critical need for targeted interventions aimed at bridging the gap between **knowledge and practice** of WHO labor management

guidelines among nurses. It is imperative for healthcare facilities, especially in developing regions like Oyo State, to prioritize the continuous education and training of nursing staff. Ensuring the availability of necessary resources and the establishment of supportive policies are crucial steps towards enhancing the adherence to WHO guidelines.

Furthermore, the study highlights the importance of addressing both systemic and individual barriers to improve labor management practices. By fostering an environment that supports evidence-based practices, healthcare facilities can enhance maternal and neonatal health outcomes. Future research should continue to explore innovative strategies to overcome the existing challenges and expand the scope to include other regions and different healthcare settings to generalize the findings.

In conclusion, the effective implementation of WHO labor management guidelines is essential for the safety and well-being of mothers and infants. By committing to the improvement of training, resources, and policy frameworks, healthcare providers can make significant strides in enhancing labor and delivery services, ultimately contributing to the reduction of maternal and neonatal morbidity and mortality.

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