

Evaluation of Obstetricians and Midwives Knowledge of Water Immersion Practice in Labor Abu Dhabi Healthcare Facility

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Abstract

The purpose of this study was to evaluate the knowledge of obstetricians and midwives on Water Immersion Practice in Labor (WIPL) in an Abu Dhabi healthcare facility. This study was conducted by Tracy Roake, a registered nurse and midwife who performs the role of a Clinical Resource Midwife (CRM) at the facility. This study has been undertaken for the partial fulfillment for the award of the degree of Doctor of Business Administration (DBA) at the awarding university - SBS Swiss Business School, Kloten-Zurich, Switzerland. The hospital is a single center healthcare facility which operates as one of the largest and oldest tertiary maternity hospitals in the UAE.

This problem that this study aims to highlight is that there are variations in the knowledge, training, and exposure of WIPL among multicultural clinicians. While WIPL is not new for some, this study confirms that very few Middle Eastern, Asian, and African clinicians have had training or exposure to WIPL, and therefore, their knowledge is questionable [1]. The dependent variable in this study is knowledge of WIPL, and the independent variables are training, education, experience, ethnicity, role, and exposure.

Objectives of the Study

1. The primary objective of this study is to evaluate the knowledge of multi-cultural obstetricians and midwives who work on the labor and delivery suite to determine whether knowledge deficit is the primary motive for the insufficient use of water immersion practice in labor.
2. The second objective is to evaluate if the level of education impacts the clinician's choice of utilizing WIPL.
3. The third objective is to determine if ethnicity affects WIPL's success.
4. The fourth objective is to discover if the role of the clinician has any impact on WIPL's success.
5. The fifth objective is to determine if the midwives' and obstetricians' experience impacts WIPL.
6. The sixth objective is to discover if the years of employment in the study hospital impacts WIPL.
7. The seventh objective is to determine if the obstetricians and midwives have enough clinical guideline and competency knowledge to practice WIPL safety.
8. Discover whether the clinicians feel that WIPL can make a positive difference to outcomes?

Research Questions

- Q1: Does previous exposure of WIPL impact its success?
- Q2: Does the obstetrician/midwife's level of education influence WIPL? Q3: Does ethnicity affect the obstetrician/midwife's choice to use WIPL?
- Q4: Does the obstetrician/midwife's role impact WIPL?
- Q5: Does the midwives' and obstetricians' experience impact WIPL?
- Q6: Does the years of employment in the hospital impact WIPL?
- Q7: Do obstetricians and midwives have enough clinical guideline knowledge to practice WIPL safely?
- Q8: Do the clinicians believe that WIPL will make a positive difference to the outcome of birth?

Methods

The methods used for this evaluation study were quantitative, utilizing a descriptive design with a cross-sectional survey tool; this tool was used to collect the participant's feedback. The analysis was conducted using a system called Minitab which helped develop the hypothesis results and extrapolate the research answers using the Pearson's chi-square test method.

ANOVA was also utilized to interpret more than two groups (Fonseca, 2013) [2]. The study survey was disseminated online through email; the "GetFeedback" service is an effective way of attracting the audience due to its convenient and easy to use concept (Action-based Research, 2017). The survey had 23 multiple

choice questions consisting of six questions based on demographic and ethnographic, as well as three factual questions on WIPL experience and prior education. Ten questions based on the practice and management of WIPL was used to evaluate the clinician's current WIPL knowledge. The current hospital clinical guideline and the two midwife's competency forms help to formalize the questions. Two further questions discussed confidence levels and the interest in receiving further education on the topic. There were two additional questions based on the general opinions of WIPL.

The case study made use of an online resource called "Survey Monkey." These results were obtained by ANOVA, which is a tool that is used for the analysis of variance. Testimonials were obtained to help discover how the clinician felt about the new interventions and recommendations initiated as a result of the study. The study's population consisted of a sample size of 125 clinicians. The clinicians were working in the Labor and Delivery Suite (LDS) as obstetricians or midwives, either full time or part-time. The sample size consisted of 56 percent midwives and 44 percent obstetricians from the different countries in Europe. It was discovered that diversity in itself was a challenge in that there are many variances in obstetric practices in different countries; this may be due to the different ideologies of providing care as well as the various types of training. In some countries, WIPL is not seen as an essential element of care, whereas in others, it is and is built into the training curriculums (Raosoft, Inc., 2017).

Results

This study found that European obstetricians and midwives have substantial exposure to WIPL compared to other nationalities. A confidence level of 95 percent was used, with the conclusion that nationality and exposure to WIPL are statistically significant weight, with a p-value of 0.0001. The study also analyzed the clinician's exposure to WIPL concerning education levels. These findings indicate that 28 bachelor's degree holders have assisted in WIPL, which implies that the holders of bachelor's degree are the most exposed category to WIPL. With a significance level of five percent, it is shown that there is an association between the level of education and the exposure to WIPL. The p-value of 0.001 indicates that these variables are dependent on each other and that there is a statistically significant relationship between the categorical variables.

The job title and role of the clinicians as regards to previous exposure shows that the majority of respondents are midwives with 56 percent exposed to WIPL. Out of the midwives and obstetricians, staff midwives were the dominant clinicians with the most exposure.

Moreover, only one specialist out of 23 had exposure to WIPL. Using a significance level of five percent, we can conclude that job title and exposure to WIPL are dependent on a p-value of 0.0002

The interest on WIPL is independent of job role because only five respondents were not interested in receiving education on WIPL. The p-value is more significant than 0.5, and therefore, has no significant value in interest and role model. This demonstrates that the organization has a healthy learning environment, and clinicians want to learn more about new healthcare interventions.

The relation between the years of qualification and the exposure to WIPL has a p-value of 0.044. Indicating dependence between the two parameters, it is difficult to confirm this relation as the sample is biased with a majority of 10-20 years expertise. None of the participants with more than 20 working years had exposure to WIPL. With a p-value of 0.164, it was concluded that both factors are independent. The distribution of participant's scores to water immersion questions is with a mean of 70. Only 16 percent of the participants scored above 90 percent and passed the questionnaire. To further explain this, the variation of grades, the education, and nationality of successful participants have been graphically represented. The majority of successful participants hold a bachelor's or master's degree. On the other hand, only one out of seven doctorate holders have passed the questionnaire. The results also confirm that 19 out of 20 successful participants are Asian and European with very close proportions.

However, only one African has passed, and none of the Middle Eastern participants scored above 90 percent [3-93].

Conclusion

The conclusion is that effective training on WIPL is imperative for all clinicians no matter their nationality, training, experience, or job title. Before the study, a clinical guideline was provided online and served as a knowledge platform. The instructor for the WIPL and evaluation competency utilized a discussion format. However, after conducting the survey and investigating the knowledge of all clinicians it was found that these clinical guidelines and skills did not provide sufficient knowledge. Consequently, the researcher designed and implemented an online competency test to ask questions to test the knowledge of the clinicians. A PowerPoint presentation summarized the essential points of the clinical guideline. Oracle Learning Management (OLM), a testing platform, was mandated and required by all clinicians who support and care for women in labor. The education department oversees these results and provides remediation or further training to individuals as needed. Further education was linked with three other workshops to reiterate essential points.

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