

Assessment of Knowledge and Attitude Regarding Water Birth among Staff Nurses in a Selected Hospital at Madurai

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Abstract

Water birth is the process of delivering baby under the water in a tub of warm water. Water birth eases pain during labor and lessens the use of analgesics. It provides a comfortable environment which allows the active participation of mother during labor. **Objectives:** The study aimed to evaluate the knowledge and attitude concerning water birth among staff nurses and explored the correlation between the level of knowledge and attitude with specific demographic variables. **Methods:** Descriptive research design was adopted with 50 nurses serving as samples. The selection of samples was done using a non-probability purposive sampling approach. Researcher developed a self-administered validated knowledge questionnaire and attitude scale to collect data. **Result:** Most of the participants {32(64%)} have poor knowledge, 18(36%) have average knowledge, and none of them have good knowledge regarding attitude. Around 14(28%) had desirable attitude, 24(48%) had neutral attitude, 12(24%) had undesirable attitude. There was a notable correlation between knowledge and prior knowledge, given that the χ^2 value was 28.51, demonstrating significance at $p < 0.001$. There was a significant association between knowledge and age, since the $\chi^2 = 11.48$ which is highly significant at the level of $p < 0.001$. There is no correlation between attitude and the chosen demographic variables.

Keywords: Attitude, demographic variables, labor, knowledge, water birth

INTRODUCTION

Pregnancy stands as a profound experience for couples, marking the commencement of a new life journey—parenthood. From the moment of conception to delivery, there exists a set of guidelines outlining what should and should not be done. A crucial aspect that garners significant attention is the

mode of delivery [1]. Most of the women think labor is likely to be one of the most painful events of their lives. In addition, there are various methods of birthing techniques, which include external manipulations like performing episiotomies, induction of labor, augmentation, applying instruments and ventouse, fundal pressure, which causes a disastrous experience for the mother and stress for the baby to enter the earth [2]. Those mechanical approaches at hospitals are driving women to look for a more personalized and organized prenatal care childbirth and focus on the concepts of natural birthing technique [3]. Among the natural birthing techniques, water birthing is found to be more comfortable and is viewed as an emerging trend in midwifery care settings.

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In water birth, a portion of the labor, delivery, or both occurs while the woman is in a warm water-filled birth pool. This can occur in a hospital, birthing center, or at home, with the assistance of a doctor or nurse-midwife guiding the mother through the process [4]. The first water birth in India was reported in the media in 2007 [5]. The use of warm water induces relaxation, leading to a shortened duration of labor. Additionally, it minimizes pain and eliminates the requirement for anesthesia. The calming impact of the water enhances the elasticity of the perineum, thereby decreasing the likelihood of severe vaginal tears and the necessity for episiotomy [6, 7]. The buoyancy effect of water allows mothers to move and reposition themselves during labor [5]. And the fear of a baby breathing under water was appeased by the work of Dr. Johnson, neonatal physiologist, who found that a baby is protected against the possibility of breathing naturally through the diving reflex [8]. The International Child Birth Education Association trusts that women with low-risk water births are not contraindicated, which may provide an environment for a gentle physiologic birth [9]. Certain conditions may make women ineligible for water births, including those under the age of 17, individuals with preeclampsia, multiple pregnancies, breech positioning of the baby, premature delivery, and women experiencing vaginal infections [5].

NEED FOR THE STUDY

Water birth minimizes pain and distress, fostering an individual's self-confidence. Water birth lowers the risk of Apgar score, shortens the duration of labor and obviously lowers the risk of NICU admission and the risk of augmentation [10]. Nowadays, it is becoming more popular and widespread in many countries, mainly in midwifery-led care settings. In India Water births are still like gold dust. Few hospitals have experienced staff helping women in labor and giving birth in the pool. Some may have facilities but don't have confident staff to perform water delivery [2]. Since water birth facilities are becoming a slowly growing trend, women's prefer water birth over other birthing techniques. Since the nurse midwives are playing a vital role in caring for the women in labor, they need to be self-adjusted to the trends emerging in obstetrics. Therefore, creating awareness about water birth plays a vital role in safe water birthing. Lack of awareness about water birth acts as an obstacle to practicing water birthing. Therefore, it is essential to evaluate the knowledge and attitude of healthcare providers regarding water birth.

OBJECTIVES

1. To evaluate the knowledge and attitude concerning water birth among staff nurses
2. To correlate the level of knowledge and attitude with specific demographic variables

METHODOLOGY

The study utilizes a quantitative research approach, and a descriptive research design has been chosen. Samples were selected using a non-probability purposive sampling technique. And the samples were 50 staff nurses working in a selected hospital in Madurai.

CRITERIA FOR SAMPLE SELECTION

Inclusion Criteria

The staff nurses who are

- Working in maternity and pediatric department
- Willing to participate
- Present at the time of data collection

Exclusion Criteria

The staff nurses who are

- Auxiliary nurse midwives
- Not present at the time of data collection

DESCRIPTION OF INSTRUMENT

1. *Part 1:* It consists of questions about demographic variables such as age, educational qualification, years of experience, place of living, and previous knowledge about water birth.

2. *Part 2:* It consists of a structured knowledge questionnaire related to water birth which consists of 20 multiple choice questions in the aspects of its definition, advantages, benefits, position, and water temperature to be maintained, indications and contraindications, role of her partner and midwife.
 For the purpose of the study, the level of knowledge was classified into 3 levels, good, average, and poor.
3. *Part 3:* This scale consists of attitude statements regarding water birth which include 7 positive statements and 7 negative statements.

DATA COLLECTION PROCEDURE

Permission was obtained from the head of the department and the dean. The study's objective was communicated, and informed consent was secured from the staff nurses. Data were gathered using a structured questionnaire devised by the researcher. The data collected was kept confidential. Institutional ethical guidelines were followed.

DATA ANALYSIS

The information gathered from the participants was organized and manually analyzed. Descriptive statistics were employed for data analysis. Demographic variables were examined through frequency distribution, mean, and standard deviation. The association of knowledge and attitude with selected demographic variables was determined using a chi-square test.

RESULTS AND DISCUSSION

Section I: Demographic Variables

Table 1 presents the frequency and percentage distribution of demographic variables. With respect to age, the majority of them (98%) fall between 20 and 30 years of age. And regarding their educational qualifications, 48% are DGNM graduates, and 52% have completed a B.Sc. (N). With respect to their years of experience, 50% of the samples have 2–4 years of working experience, 36% have less than 2 years of experience, and 14% have more than 4 years of experience. With respect to their place of living, the majority of them (64%) are staying in hostels, 20% live in urban areas, and 16% live in rural areas. Based on the precious knowledge regarding water birth, 60% of the samples were not aware, 20% had it from an e-source, and CNE.

Table 1. Frequency and percentage distribution of demographic variables among staff nurses (n = 50).

S.N.	Demographic variables	Frequency (n = 50)	Percentage (%)
1.	<i>Age</i>		
	a) 20–30	49	98%
	b)30–40	1	2%
	c) 40 above	-	-
2.	<i>Educational qualification</i>		
	a) DGNM	24	48%
	b) B. Sc.(N)	26	52%
	c) M. Sc. (N)	-	-
3.	<i>Years of experience</i>		
	a) Below 2 years	18	36%
	b) 2–4 years	25	50%
	c) Above 4 years	7	14%
4.	<i>Place of living</i>		
	a) Rural	8	16%
	b) Urban	10	20%
	c) Hostel	32	64%
5.	<i>Previous knowledge on water birth</i>		
	a) Books and journals	10	20%
	b) E-source and CNE	10	20%
	c) Not aware	30	60%

Table 2. Frequency and percentage distribution on level of knowledge regarding water birth among staff nurses (n = 50).

S.N.	Knowledge	Frequency (n = 50)	Percentage (%)	Mean	SD
1.	Good	0	0	5.78	2.50
2.	Average	18	36%		
3.	Poor	32	64%		

Table 3. Frequency and percentage distribution of level of attitude regarding water birth among staff nurses (n = 50).

S.N.	Attitude	Frequency (n = 50)	Percentage (%)	Mean	SD
1.	Desirable	14	28%	18.38	3.28
2.	Neutral	24	48%		
3.	Undesirable	12	24%		

Section II: Knowledge and Attitude Regarding Water Birth among Staff Nurses

Table 2 depicts the level of knowledge on water birth among staff nurses. 64% had poor knowledge, 36% have average knowledge, and none of them have good knowledge.

Attitude on Water Birth among Staff Nurses

Table 3 depicts the percentage level of attitude on water birth among staff nurses. 28% had desirable attitude, 48% had neutral attitude, 24% had undesirable attitude.

Section III: Association between the Knowledge, Attitude with their Selected Demographic Variables

The selected demographic variables are age, years of experience, educational qualification, place of living, and previous knowledge of water birth. There was a significant association found between knowledge and previous knowledge, since the $\chi^2 = 28.51$ which is statistically significant at $p < 0.001$. And there was a statistically significant association between knowledge and age, since the $\chi^2 = 11.48$ which is highly significant at the level of $p < 0.001$. No correlation was found between attitude and the chosen demographic variables [11–14].

CONCLUSION

The results of this study indicate that a significant portion of the staff nurses lacks awareness of water birth, and the majority holds a neutral attitude. The novice and experienced staff nurses need to be updated with the emerging trends in labour and delivery.

Protection of Human Rights

Ethical guidelines were followed. Informed consent was obtained from all the study participants, and it was assured that the data would be kept confidential.

Conflict of Interest

We declare that we have no conflict of interest.

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