

# Assessment of Nurses- midwives' Knowledge of Nursing Measures for the Use of Utero-tonic Drugs in Al\_Kut city hospitals

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## ABSTRACT

**Objectives:** To assess nurses- midwives' knowledge about nursing measures related to Utero-tonic Drugs Use .

**Method:** A descriptive design study was conducted from 1<sup>st</sup> May 2021to 10<sup>th</sup> March 2022 in two hospitals at al- kut city on nurses and midwives who work at maternity hospitals. Non- probability (Convenience sampling) was used to collect the data from select 60 nurses and midwives. A questionnaire is an instrument to collect the demographic, occupational information and knowledge which consists of 40 items. Validity of content was determined through reviewing it by (13) experts and reliability of tools was determined through a pilot study. descriptive statistics were used to analyze the data.

**Results:** the result of the study showed that more than half of study sample were within age group (20-24) years The results of study indicated that assessment of nurses – midwives' knowledge were in adequate (60%) and adequate (40%) about nursing measures related to uterotonic drugs use. The study findings showed that nurse midwives have in adequate knowledge regarding nursing measures of uterotonic drugs use. Establish training courses concerning right methods of nursing measures for use uterotonic drugs for all nurses and midwives who work at maternity hospitals in al-kut city.

## Conclusions:

The study showed that assessment of nurses-midwives' knowledge about nursing measures of uterotonic drugs use were inadequate level and these have effect on pregnant women and their fetus.

**Keywords:** Assessment, nursing measures, utero-tonic drugs, Nurses-Midwives Knowledge

## INTRODUCTION

The birth of a fetus and placenta is the outcome of a series of events known as labor and delivery. So this happens when uterine contractions and abdominal pressure expel a fetus and placenta from the uterus. Regular contractions induce the cervix to dilate and generate enough muscular uterine force to gradually push the baby into the extrauterine world. Labor is a moment of transition for the mother, her fetus, and her family since it is both an end and a beginning (Archie, Roman, et al., 2013). It contracts and relaxes the muscles in the uterus based on maternal and fetal hormone stimuli. Prostaglandins, for example, are a type of signal in addition to oxytocin. Uterotonics can elicit contractions during labor induction, augmentation medically, and treat postpartum hemorrhage through these chemical routes. (Thomas, Fairclough, et al. 2014). Uterotonics, also known as ecbolics, are pharmacological drugs that cause the uterus to contract or to become more tonic (Mousa, Blum, et al., 2014) The use of uterotonic medicines has dramatically reduced maternal mortality due to postpartum bleeding around the world (Gharoro, Enabudoso, et al., 2013) Preventive administration of uterotonic medications during the active management of the third stage of labor has reduced severe morbidity and mortality from PPH. However, there are considerable differences in the uterotonic drugs used and when they are taken, which could have a significant impact on the reduction of postpartum hemorrhage and the health of both babies and mothers.) (Begley, Gyte, et al., 2019). Uterine atony is the most common cause of PPH (failure of the uterus to contract after birth). As a result, the World Health Organization (WHO) recommends using uterotonics (agents that promote uterine contractility) as a preventative measure for all births (WHO 2018). Despite using a uterotonic drug as a preventative measure, PPH remains a prevalent complication, accounting for one-quarter of maternal deaths worldwide. When Prevention Fails and PPH develops, it is suggested that uterotonic medicines be used as a "first-line" treatment. (Gallos, Papadopoulou, et al. 2018).

## METHODOLOGY

A descriptive design study was conducted from 1st May 2021to 10th March 2022 in two hospitals at al- kut city on nurses and midwives who work at maternity hospitals. Non- probability (Convenience sampling) was used to collect the data from select 60 nurses and midwives. Data were collected by using the study

instruments questionnaire that consisted of demographic, occupational information and knowledge which consists of 40 items. scoring system for questionnaire score,1 for wrong answer and 2 for the correct answer for the multiple –choice questions. The pilot study was conducted to find out whether the items of questionnaire were clearly understood, applicable and to determine the reliability and to estimate the time required for the interview. The reliability of instrument was determined through the test and re-test approach, with distance period two weeks between these tests. The result of the reliability was ( $r= 0.934$ ) with Pearson correlation coefficient was calculated ( $r = 0.876$ ) for knowledge items. Statistical procedures were employed to examine the data, with descriptive (frequency, mean, percentage, standard deviation) and inferential (pearson correlation, T-tests) statistics with a p-value less than 0.05 being considered significant.

## RESULTS

Table 1: Distribution of Study Sample According to Demographic Characteristics (n= 60)

Demographic Characteristics	F	%
<b>Age / years</b>		
20-24	31	51.7
25-29	5	8.3
30-34	4	6.7
35-39	5	8.3
40-44	8	13.3
≥ 45	7	11.7
<b>Educational level</b>		
Nursing school graduate	3	5.0
Nursing secondary graduate	7	11.7
Midwifery secondary graduate	33	55.0
Nursing institute graduate	16	26.7
Midwifery institute graduate	1	1.7
College graduated and more	3	5.0
<b>Social Status</b>		
Married	24	40.0
Single	32	53.3
Widow	1	1.7
Divorce	3	5.0
<b>Economic Status</b>		
less than 300,000	1	1.7
301,000-600,000	48	80.0
601,000-900,000	10	16.7
901,000-100,0000	1	1.7

Table 2: Nurses' knowledge regarding nursing measures for the use of uterotonic drugs (n= 60)

Ass.	RS	MS		False answer		Correct answer		Knowledge item		No.
				%	F	%	F			
1	The activity of the uterus is diagnosed in the following manner	4	6.7	56	93.3	1.07	53.5			L
2	Before starting labor augmentation, the woman must be evaluated and made sure that there is not have	40	66.7	20	33.3	1.67	83.5			M
3	Nurse –midwives should Monitor the mother's vital signs while administering oxytocin every	42	70	18	30	1.7	85			M
4	What do you do if fetal distress occurs?	43	71.7	17	28.3	1.72	86			M
5	The nurse-midwife should monitor the fetal heart rate during the intravenous oxytocin infusion every	11	18.3	49	81.7	1.18	59			L
6	Instructing the patient to use misoprostol in the event that it is used for the purpose of stomach ulcers in day of menstruation.	16	26.7	44	73.3	1.27	63.5			L
7	Nurse –midwives should be Monitor Blood pressure and uterine contractions during intravenous administration of Methergine due to the risk of	37	61.7	23	38.3	1.62	81			M
8	When oxytocin is used during the third trimester of childbirth in a patient suffering from heart disease to control bleeding, it must be administered through	38	63.6	22	36.7	1.63	81.5			M
9	The nurse-midwife should immediately administer the prophylactic treatment of the uterotonic drugs at	5	8.3	55	91.7	1.08	54			L
10	Uterotonic drugs given within	24	40	36	60	1.4	70			L

(M.S) mean score (R.S) relative sufficiency (Ass.) assessment (Low=  $\geq 75$ ), (Moderate= 75.1-87.5), (High= 87.6-100)

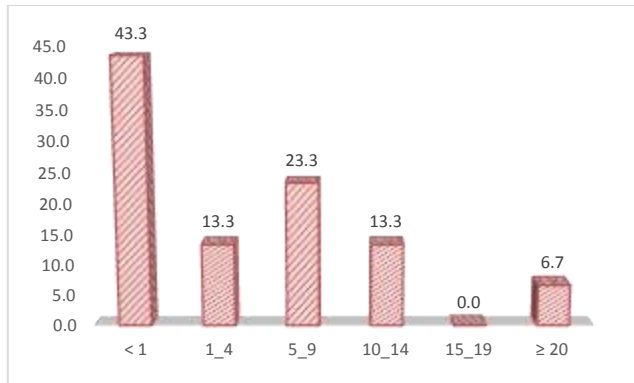


Figure 1: Percentage of nurses' experience duration (years)

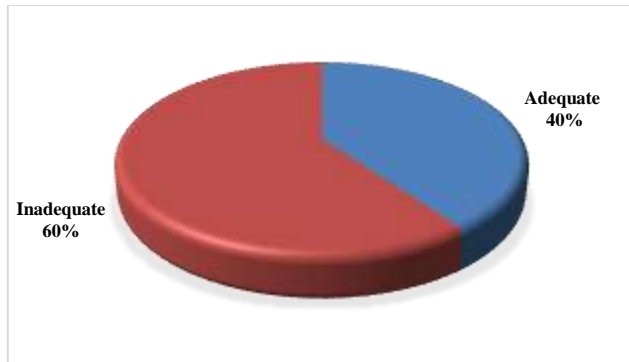


Figure 2: Assessment of Nurses' knowledge about nursing measures of uterotonic drugs.

**DISCUSSION**

Analysis of demographic variables indicated that the high percentages (51.7%) from study sample within age groups (20 - 24 years old). The findings of present study were disagreed with those of (Bulndi, 2017) that reported the range of age groups was (41-50 years). The highest percentage (55.0%) of the subjects were graduated from Midwifery secondary graduate. The findings of present study are incongruent with Kavitha et al., (2014) who studied level of knowledge of staff nurses on emergency obstetric management, revealed that most of studied nurses were secondary nursing school graduates. (53.3%) of the nurses and midwives were married. The researcher believes that social status

variable may be contribute in obtaining knowledge about nursing measures of utero-tonic drugs use due to experiencing from child birth by married participants at a current study. (80.0%) of study sample their economic status between (301,000-600,000) Iraqi dinar. as shown in table (1). The highest percentages (43.3%) of study sample their experience year were ( $\geq 1$ year). These results supported evidence is available in the study that reported (42.43%) of the respondents worked at Pretoria west hospital for a period between (0 and 5) years. This result was inconsistent with those of (Natarajan, Ahn et al. 2016) who stated that the length of experience was: 0-9 year (72%), 10-19 years (20%), 20-29 years (5%) and >30 years (3%). The reason of most participant has ( $\leq 1$ ) years of experience that most of nurses- midwives when went to complete medical gradient not return again to the same place and went for another place. the result of present study also depicts that (60%) of nurses and midwives have inadequate knowledge regarding nursing measures about uterotonic drugs use.

**CONCLUSIONS**

The study showed that assessment of nurses-midwives' knowledge about nursing measures of uterotonic drugs use were inadequate level and these have effect on pregnant women and their fetus.

**Recommendation:** Nurse and midwife should be given an educational booklets in order to improve knowledge level of nursing measures of uterotonic drugs use and involve in special training course in this filed in order to have more information and able to less the harmful on women and her fetus.

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