

## Assess knowledge of Nurses who Provide Prenatal Care Concerning Toxoplasmosis in Basra City

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### Abstract:

**Aims:** To assess the knowledge about toxoplasmosis among nurses working in prenatal care in primary care units and hospitals of Basra city.

**Methods:** A questionnaire was administered to 50 obstetric nurses at primary care units and hospitals. The questionnaire was self-completed and included many questions on diagnosis, clinical, and prevention of toxoplasmosis.

**Results:** The higher percentages (26%) of nurses were with age ranging from 26-31 years & 32-37 (52.9%) were secondary graduates (76%) and (24%) were institute graduates, (32%) of nurses who were included in the study have duration of experience ranging from 7-13 years. That (54%) of nurses having a moderate level of knowledge, (22%) was within good knowledge and (24%) within poor knowledge.

**Key Words:** Assess, Knowledge, Toxoplasmosis, Questionnaire, Nurses, Basra, Iraq

## INTRODUCTION

Toxoplasmosis is a zoonosis disease which has worldwide distribution and infects most warm-blooded animals, including pets and man (Dubey, 1994). Humans and animals become infected through the ingestion of oocysts shed in the feces of felids, which contaminate water, soil, and food, and by ingesting cysts in meat, viscera, and animal byproducts. It can also be triggered by tachyzoites, which may infect the fetus during pregnancy via the placenta and cause congenital toxoplasmosis (Desmonts and Couvreur, 1974).

Primary infection by *T. gondii*, usually asymptomatic in women, can severely affect the fetus during pregnancy. It includes several disorders (e.g., hydrocephalus, cerebral calcifications, mental retardation, chorioretinitis, microphthalmia, strabismus, deafness, and intrauterine death) (Remington *et al.*, 2006).

Physicians and other health care professionals have a critical role in the prevention and control of food-related disease outbreaks (Foulon *et al.*, 2000).

Health education for pregnant women and health staff represent the first step in the strategic control of congenital toxoplasmosis.

This study aims to assess the knowledge about toxoplasmosis by nurses involved in prenatal care at public health units in Basra city.

## METHODS

### Study design:

A descriptive analytic study was carried out (from November 2014 to February 2015). To assess the level of nurse's knowledge regarding toxoplasmosis management in pregnancy.

### Research variable:

1. Study variables: practices and Knowledge among the nurses.
2. Demographic variables: Demographic variables such as occupational, place, age, education and years of experience.

### Setting of study:

The study was conducted at three hospitals in Basra (AL-Basra General Hospital, Basra hospital for maternity and children and Al-Mwaneah hospital). And eleven primary health centers (Sara, Al-Razi, Al-Kaaim, Al-Abbas, Al-Ashar, Al-Taamim, Al-Bradeah, Al-Mutaihha, Al-Zahraa, Al-Ressalah and Al-Gehad).

### Sampling and sample size:

None Probability convenience sampling technique of (50) nurses who provide prenatal care to pregnant women at maternity units and primary health care in hospitals and health care centers.

### Tools for Data Collection:

They were designed and collection constructed by the investigators after reviewing related literature and previous studies which Consisted of self-administered questionnaires, consists of two parts: the first part concerned with subjects' socio- demographic data related to age, sex, years of working experience and level of education, While the second part dealt with assessment of nurses' knowledge related to toxoplasmosis. Nurses' knowledge was evaluated through (15) different questions.

### Statistical Analysis:

The Data analysis of the study sample was done by using the SPSS (Statistical Package for Social Sciences) (version 19).

**RESULTS**

**Socio demographic characteristics:**

Table (1) distribution of (50) aborted nurses Socio demographic characteristics

Age	F	%
20-25	8	16
26-31	13	26
32-37	13	26
38-43	8	16
44-49	5	10
50-55	3	6
Mean ± SD=34.16±8.44	50	100
Level of education		
Secondary school nursing	38	76%
Institute	12	24%
<b>Total</b>	<b>50</b>	<b>100%</b>
Years of experience		
1-6 years	18	36%
7-13 years	16	32%
14-20 years	10	20%
21 years and more	6	12%
	50	100

P-value=probability level of ≤ 0.05

This table shows the demographic characteristics of nurses who were included in the study. The higher percentages (26%) of nurses were with age ranging from **26-31** years & **32-37** (52.9%) were secondary graduates (76%) and (24%) were institute graduates, (32%) of nurses who were included in the study have duration of experience ranging from 7-13 years.

Table(2). Distribution of the nurses by their level of knowledge toward management of *toxoplasmosis*

level of knowledge		
poor knowledge	12	24%
Moderate knowledge	27	54%
good knowledge	11	22%
<b>Total</b>	<b>50</b>	<b>100</b>

Table (2) and Figure (1) depicts that (54%) of nurses have moderate level of knowledge, (22%) was with in good knowledge and (24%) within poor knowledge.

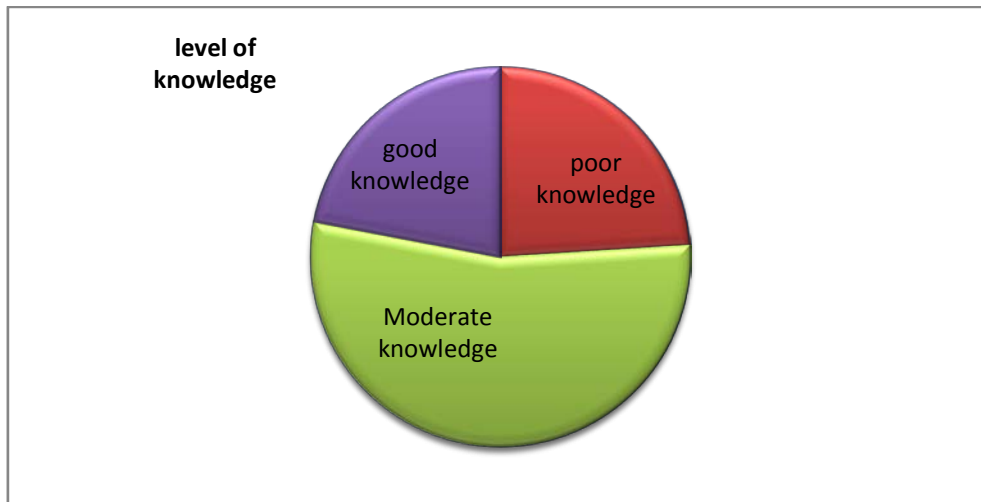


Figure (1): Distribution of level of knowledge for study sample

Table (3). Relationship between nurses 'level of knowledge and their sociodemographics.

Socio-demographic characteristics (n=50)			level of knowledge			Total	sig
			Poor	moderate	good		
1	Age	20-25	3	4	1	8	.006
		26-31	3	6	4	13	
		32-37	1	11	1	13	
		38-43	3	3	2	8	
		44-49	2	2	1	5	
		50-55	0	1	2	3	
2	Level of education	Secondary school nursing	12	21	5	38	.080
		Institute	3	9	-	12	
3	Yearsof experience	1-6 years	5	10	3	18	.020
		7-13 years	2	11	3	16	
		14-20 years	4	4	2	10	
		21 years and more	1	2	3	6	
		Total		12	27	11	

Sig.: Level of significance (Probability level of ≤ 0.05)

Table (3) shows that there is highly significantly related between the nurse's level of knowledge and their age and years of experience respectively. On the other hand, there is no significant relation between nurses' knowledge and their demographic characteristics of education.

## DISCUSSION

### *Nurse's demographic characteristics:*

Throughout the data collection and of the data analysis It is noted about the high percentage of nurses (26%) wear with age ranging from 26-31 years. Relative to the nurses education, (76%) were secondary nursing school graduates and one third was institute graduates. This distribution was coming to corresponding their age and years of experience ranging from 7-13 years. Regarding the study sample.

This finding reflects the weakness of continuous nursing education in primary health care. In general our study highlights the weakness of the literatures in the area of nurses' knowledge about toxoplasmosis and demographic characteristics of nurses who included in such investigation.

The study result shows that the highest percentage (26%) were in the age group of (26-31 & 32-37) years and there are high significant differences in between groups ( $\chi^2 = .006$   $P=0.000$ ). Collins *et al*(2010) reported that the majority of midwives were aged between 25 and 39 years, and WHO reported that the age of mid-wives will take a minimum of 25 years in some places, to have skilled care at all birth (WHO, 2006). Guet *al*(2011) in China reported that all participants were aged between 24 and 32 years. Regarding the education level the study found that the highest percentage (75%) (39) ( $\chi^2=100.3$   $P=0.000$ ) graduated from mid-wifery school and there are high significant differences between groups, the sample who working in the delivery room were mostly midwifery school graduates. WHO assisted the educational level of midwives through the definition of midwives as a "person who, having been regularly admitted midwifery educational programmed, duly recognized in the country in which it is located, has successfully completed the prescribed course of studies in midwifery and as acquired the requisite qualifications to be registered and most of the samples were graduated from midwifery and nurses secondary school, and they are permanent registered midwives according to the policies of Ministry of Health (MOH) in Iraq. Regarding years of work (36%) of them were working for less than (6) years (WHO, 2008).

The table (3) shows that there were statistical significant association between level of knowledge and (Age/ years, Level of Education, Experience/ year).

The finding of present study supported evidence is available in the study that explains employees who are not given the chance to improve their knowledge and skills, feel frustrated when faced with new situations that affect their jobs, because they do not have up to date knowledge to intervene in order to meet patients' needs (Tomey, 2004).

### *Nurses level of knowledge to the management of toxoplasmosis:*

Nurses are the principal group of health personnel providing primary health care at all levels and maintaining links between individuals, families, communities and the rest of the health care system (WHO, 1978). The findings had reported that (58%) of nurses & midwife have moderate level of knowledge and about one third of them (22%) was with good. The nurses who work in prenatal care units have a wide work area. Therefore, it is necessary those nurses have a general education as the proper conduct of health problems

### *The relationship between nurses 'level of knowledge and their sociodemographic:*

In the current study, it was observed that there is highly significant relation between nurse's level of knowledge and their age and years of experience in contrast with the literature that indicates an inverse correlation between knowledge and years of professional practice.

## CONCLUSIONS

### *Based on the finding of this study:*

Has observed a lack of general knowledge on toxoplasmosis among nurses who Provide Prenatal Care in Basra city. Since this may be due to a lack of education background on toxoplasmosis.

## RECOMMENDATIONS

Based on the conclusions, the study recommends that:

It is necessary to join all nurses who work in prenatal care units in workshop training, continuing education sessions regarding toxoplasmosis aspects. Conduct other study to assess pregnant women's knowledge and behavior to prevent toxoplasmosis.

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