

Knowledge of Prenatal Care Nurses toward Management of Toxoplasmosis in Pregnant Women

معارف ممرضي رعاية ما قبل الولادة نحو التدابير العلاجية لداء المقوسات في الحمل

Fatima W. Khudair, PhD*

* Instructor, Community Health Nursing Department, College of Nursing, University of Kufa

المستخلص:

الهدف: تهدف الدراسة إلى تقييم مستوى معارف الممرضين بما يتعلق بالتدابير العلاجية لداء المقوسات عند النساء الحوامل.

المنهجية: دراسة وصفية تحليلية أجريت من شهر كانون الثاني ٢٠١٢ ولغاية اذار ٢٠١٢. اختيرت عينة حجمها (٧٠) شملت الممرضين والممرضات الذين يعملون في وحدات الرعاية قبل الولادة في مراكز الرعاية الصحية الأولية (العدالة، الهنديّة، العسكري، الجامعة، النصر، السلام) في مركز مدينة النجف. تم بناء استمارة استبيان لغرض الدراسة. شمل الاستبيان أسئلة حول الخصائص الاجتماعية والديموغرافية ومختلف الجوانب ذات العلاقة بداء المقوسات.

النتائج: أشارت نتائج الدراسة إلى أن (٤٤,٣%) من الممرضين كانوا بمستوى متوسط من المعرفة. (٣٢,٩%) تتراوح أعمارهم بين ٣١ - ٣٦ عاماً (٧٤,٣%) منهم ذكور. (٥٢,٩%) من خريجي الثانوية و(٣١,٤%) كانوا خريجين المعهد. بخصوص الدورات التدريبية فغالبهم (٨٤,٣%) ليس لديهم دورات تدريبية، (٣٤,٣%) من الذين شملتهم الدراسة كانت لديهم سنوات خبرة تتراوح بين ٧-١٣ سنة. هناك علاقة ايجابية بين مستوى معرفتهم بالتدابير العلاجية لداء المقوسات وأعمارهم وسنوات خبراتهم (٠,٠٢٤، ٠,٠٠٩) على التوالي.

التوصيات: أوصت الدراسة بما يلي: من الضروري انضمام جميع الممرضين والممرضات الذين يعملون في وحدات الرعاية قبل الولادة في ورش عمل تدريبية، دورات التعليم المستمر فيما يتعلق بداء المقوسات وغيرها من قضايا الأم والطفل لتحسين الوعي الصحي. إجراء دراسة اخرى لمعرفة العلاقة بين انتشار داء المقوسات وفاعلية الرعاية قبل الولادة في منع الإصابة بداء المقوسات.

Abstract

Objective: This study aims to assess the level of nurse's knowledge regarding toxoplasmosis management in pregnant women.

Methodology: A descriptive analytic study was carried out from January 2012 to March 2012. A sample of (70) nurses who provide prenatal care to pregnant women at primary health care centers of AL-Adala, AL-Hindia, AL-Askary, AL-Jamea, AL-Ansar and AL-Salam in AL-Najaf city. The questionnaire was self-completed and included questions on sociodemographic characteristics and toxoplasmosis aspects.

Results: The findings of the study indicated that (44.3%) of nurses have moderate level of knowledge. (32.9%) of nurses was with age ranging from 31-36 years. (74.3%) were male. (52.9%) were secondary graduate, (31.4) were institute graduates, regarding the training sessions the majority of nurses (84.3%) have no training sessions, (34.3%) of nurses who were included in the study have duration of experience ranging from 7-13 years. Highly significant relation between nurse's level of knowledge and their age and years of experience (0.009, 0.024) respectively

Recommendations: The study recommended that: it is necessary to join all nurses who work in prenatal care units in workshop training, continuing education sessions regarding toxoplasmosis aspects and other mother-child issues to improve health awareness. Another study should be conducted to investigate the association between the prevalence of toxoplasmosis and affectivity of prenatal care in preventing toxoplasmosis.

Keywords: Toxoplasmosis management, Level of Knowledge, Prenatal care nurses

Introduction:

Toxoplasma gondii was initially described in 1908 in Tunis by Nicolle and Manceaux (1908) and in Brazil by Splendore (1908)⁽¹⁾. Toxoplasmosis is considered to be a leading cause of death attributed to foodborne illness in the United States. More than 60 million men, women, and children in the U.S. carry the Toxoplasma parasite, but very few have symptoms because the immune system usually keeps the parasite from causing illness⁽²⁾. Congenital toxoplasmosis is a potentially severe infection and its prevention is most often based on serological screening in pregnant women. Many cases could be prevented by simple precautions during pregnancy⁽³⁾. Physicians and other health care professionals have a critical role in the prevention and control of food-related disease outbreaks⁽⁴⁾. After confirmation of the pregnancy, the goal of the first prenatal contact is to exchange information and identify existing risk factors that may impact the pregnancy. This initial contact may be accomplished in a group setting or during a one-on-one visit. This encounter provides an opportunity early in the pregnancy to obtain general short-term risk stratification. In this visit, the nurse should identify women who: 1. Need immediate referral to an advanced prenatal care provider (e.g., high risk for ectopic pregnancy); 2. Need to see an advanced prenatal care provider at the first provider visit; 3. Can have the first provider visit with a low-risk prenatal care provider⁽⁵⁾.

Methodology:

A descriptive analytic study was carried out from January 2012 to March 2012 to assess the level of nurse's knowledge regarding toxoplasmosis management in pregnancy. A disproportional randomization of (70) nurses who provide prenatal care to pregnant women at primary health care centers of AL-Adala, AL-Hindia, AL-Askary, AL-Jamea, AL-Ansar and AL-Salam in AL-Najaf city. The questionnaire was self-completed and included questions on sociodemographic characteristics of age, level of education, gender, training sessions,

years of experience and nurses' knowledge about aspects of causes, diagnosis, clinical manifestation, and modes of transmission, treatment complication and prevention of toxoplasmosis in pregnant women. The questionnaires were distributed on nurses to fill it. The total scores ranged from (0-25) then these scores were divided on three levels, subjects with scores ranged from (0-8) were considered to have poor knowledge. While others ranging from (9-17) had fair knowledge and subjects with scores ranging from (18-25) had good knowledge. Data were analyzed through the application of the descriptive data analysis approach (frequency and percentage) and the inferential data analysis approach of correlation coefficient and chi – square.

Results:**Table 1.** Distribution of nurse's demographic characteristics of age, gender, level of education, training session, and years of experience

Demographic characteristics(n=70)	Frequency	Percentage
Age		
19-24years	3	4.3
25-30 years	16	22.9
31-36 years	23	32.9
37-42 years	12	17.1
43 years and more	16	22.9
Total	70	100.0
Gender		
Male	52	74.3
Female	18	25.7
Total	70	100.0
Level of education		
Nursing school	7	10
Secondary nursing school	37	52.9
Institute	22	31.4
College	4	5.7
Total	70	100.0
Training of sessions		
No	59	84.3
Yes	11	15.7
Total	70	100.0
Years of experience		
1-6 years	13	18.6
7-13 years	24	34.3
14-20 years	20	18.6
21 years and more	13	18.6
Total	70	100.0

P-value=probability level of ≤ 0.05

This table shows the demographic characteristics of nurses who were included in the study. (32.9%) of nurses were with age ranging from 31-36 years. (74.3%) of them were male. (52.9%) were secondary graduates and (31.4) were institute graduates, regarding the training sessions the majority of nurses (84.3%) have no training sessions, (34.3%) 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	Frequency	Percent
poor knowledge	14	20.0
Moderate knowledge	31	44.3
good knowledge	25	35.7
Total	70	100.0

This table depicts that (44.3%) of nurses have moderate level of knowledge and about one third of them (35.7%) was with in good knowledge.

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

Socio-demographic characteristics (n=70)			Level of knowledge			Total	P-value
			Good	Moderate	Poor		
1.	Age	19-24 years	1	2	0	3	0.009
		25-30 years	6	8	2	16	
		31-36 years	12	9	2	23	
		37-42 years	5	6	1	12	
		43 years and more	1	6	9	16	
		Total	25	31	14	70	
2.	Gender	Male	19	22	11	52	0.839
		Female	25	31	14	18	
		Total	11	8	11	30	
3.	Level of education	Nursing school	3	1	1	5	0.073
		Secondary Nursing school	13	18	6	37	
		Institute	8	12	2	22	
		college	1	0	1	4	
		Total	25	31	14	70	
4.	Training session	No Training session	17	29	13	59	0.086
		Training sessions	8	2	1	11	
		Total	25	31	14	70	
5.	Years of experience	1-6 Years	4	8	1	13	0.024
		7-13 Years	13	10	1	24	
		14-20 Years	6	8	6	20	
		21 Years and more	2	5	6	13	
		total	25	31	14	70	

Sig.: Level of significance (Probability level of $P \leq 0.05$)

This table shows that there is highly significant relation between nurse's level of knowledge and their age and years of experience (0.009, 0.024) respectively. On the other hand there is no significant relation between nurses' knowledge and their demographic characteristics of education, gender and training session

Discussion:

1. Nurse's demographic characteristics.

Throughout the course of the data analysis it is noted about one third of nurses (32.9%) were with age ranging from 31-36 years. More than two third of them were males (74.3%). The age of those subjects considered as an appropriate age to play an important role in providing their female clients with the information that improve pregnancy and birth outcomes so it is noted in this study the majority of nurses who provide prenatal care were males(74.3%)and the women in our society prefer female nurses to work beside them in preparing them for safe pregnancy ,the birth of their baby, for caring their newborn and to be ready for motherhood .relative to the nurses education, (52.9%) were secondary 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 training

sessions the majority of nurses (84.3%) have no training sessions .This finding reflects the weakness of continuous nursing education in PHCs. 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.

2. Nurses level of knowledge toward 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⁽⁶⁾.The findings had reported that (44.3%) of nurses have moderate level of knowledge and about one third of them (35.7%) 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. Only

44% of total answers were corrected ⁽³⁾. As congenital toxoplasmosis is a mother-to-child (MTC) transmitted disease, early diagnosis and treatment can prevent serious and irreversible fetal damage. Thus, doctors and nurses who provide prenatal care must be appropriately trained on prophylactic, diagnostic, and clinical aspects of toxoplasmosis ^(7,8). Awareness creation on the modes of transmission and prevention of T. Gondii should be made to women of child bearing age in general and pregnant women in particular during their antenatal care follow up ⁽⁹⁾.

3. The relationship between nurses 'level of knowledge and their sociodemographic

In the present 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, justifying the need for recertification exams in some countries ^(10,11).

Recommendations:

Based on the early derived 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 and other mother –child issues to improve health awareness, knowledge, and behavior or health outcomes for mothers and babies .Educate pregnant women about preventive measures such as hygiene practices to prevent congenital toxoplasmosis. Conduct other study to investigate the association between the prevalence of toxoplasmosis and affectivity of prenatal care in preventing toxoplasmosis.

References:

1. Weiss LM, Dubey JP. Toxoplasmosis: **A history of clinical observations**. Int J Parasitol. 2009 Jul 1; 39(8):895-901.
2. **Centers for Disease Control and Prevention**(CDC,2012):parasites-toxoplasmosis. ; Atlanta, USA.
3. Laura Berriel da Silva et al.(2011): **Knowledge of Toxoplasmosis among Doctors and Nurses Who Provide Prenatal Care in an Endemic Region**. Infectious Diseases in Obstetrics and GynecologyVolume 2011 (2011), p.1
4. CDC(2004): **Morbidity and Mortality Weekly Report: Recommendations and Reports** April 16, Vol. 53 / No. RR-4.P.1.
5. Department of Veterans Affairs (VA) and Department of Defense (DoD)(2009): **Clinical**

Practice Guideline For Pregnancy Management.USA.P.13.

6. World Health Organization, **Alma Ata 1978 Primary Health Care**, Geneva, WHO, 1978. Adopted in 2000, Reviewed and revised in 2007.
7. J. L. Jones, V. J. Dietz, M. Power, et al.(2001) **"Survey of obstetrician-gynecologists in the United States about toxoplasmosis,"** Infectious Diseases in Obstetrics and Gynecology, vol. 9, no. 1, pp. 23–31.
8. J. M. Kriebs, **"Infectious diseases in pregnancy (2008) : issues of screening, prevention, and treatment,"**Journal of Perinatal & Neonatal Nursing, vol. 22, no. 3, pp. 214–220.
9. Zemene.E, Yewhalaw.D, Abera1 S, Belay.T, Samuel .A and Zeynudin.A(2012) :**Seroprevalence of Toxoplasma gondii and associated risk factors among pregnant women in Jimma town**, Southwestern Ethiopia BMC Infectious Diseases , 12:337.
- 10.P. G. Ramsey, J. D. Carline, T. S. Inui, et al., (1991):**"Changes over time in the knowledge base of practicing internists,"** Journal of the American Medical Association, vol. 266, no. 8, pp. 1103–1107.
- 11.N. K. Choudhry, R. H. Fletcher, and S. B. Soumerai, (2005): **"Systematic review: the relationship between clinical experience and quality of health care,"** Annals of Internal Medicine, vol. 142, no. 4, pp. 260–273.