بسم الله الرحمن الرحيم

Nurses Knowledge Regarding Zika Virus

المعارف الممرضين بفيروس زيكا

A graduation project submitted to the Faculty of Nursing University of Babylon as part of the requirements for obtaining a Bachelor's degree in Nursing

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بسم الله الرحمن الرحيم

قُلْ آمِنُواْ بِهِ أَوْ لا تُؤْمِنُواْ إِنَّ الَّذِينَ أُوتُواْ الْعِلْمَ مِن قَبْلِهِ إِذَا يُتْلَى عَلَيْهِمْ يَخِرُّونَ لِلأَذْقَان سُجَّدًا

وَيَقُولُونَ سُبْحَانَ رَبِّنَا إِن كَانَ وَعْدُ رَبِّنَا لَمَفْعُولا

وَيَخِرُّونَ لِلأَذْقَانِ يَبْكُونَ وَيَزِيدُهُمْ خُشُوعًا

صدق الله العلي العظيم

سورة الإسراء- الآية 107 – 108-

الإهداء

إلى من شجعني على المثابرة طوال عمري، إلى الرجل الأبرز في حياتي

(والدي العزيز)

إلى من بها أعلو، وعليها أرتكز، إلى القلب المعطاء

(والدتي الحبيبة)

إلى من بذلوا جهدا في مساعدتي وكانوا خير سند

(إخواني وأخواتي)

إلى أسرتي إلى أصدقائي وزملائي

إلى كل من ساهم ولو بحرف في حياتي الدراسية....

إلى كل هؤلاء: أهدي هذا العمل، أسال الله تعالى أن يتقبله خالصا...

الشكر والتقدير

بداية الشكر لله عز وجل الذي أعاننا وشد من عزمنا لإكمال هذا البحث ، ونشكره راكعين ، الذي وهبنا الصبر والمطاولة والتحدي والحب لنجعل من هذا المشروع علما ينتفع به .

قال رسول الله ـ صلى الله عليه وسلم : " من لم يشكر الناس لن يشكر الله .

نتقدم بأجمل عبارات الشكر والامتنان من قلوب فائضة بالمحبة والاحترام والتقدير له ، ونقدم أزكى تحياتنا وأجملها وأثناها نرسلها لكِ بكل الود والحب والإخلاص .. شاكرين لكِ كل ما قدمته وما نصحت لنا به في إشرافك على هذا البحث ، فلك منا كل الشكر. والامتنان :

الدكتوره الفاضله / ندى خزعل

ونتقدم بجزيل الشكر والعرفان إلى جميع الطلبة الذين ساهموا في إنجاح هذا البحث متمنين لهم التوفيق والنجاح الدائم

*أعضاء لجنة المناقشة الكرام

ABSTRACT

Background: Zika virus causes disease (Guillain-Barré Syndrome) in which the peripheral nerves are attacked disorder, and damaged in the nervous System. It occurs because the immune system attacks parts of the nervous System.• The first symptoms are usually weakness, tingling, and numbness. Zika virus transmitted by mosquitoes Aims: To assess nurse knowledge about zika virus, and investigate the differences in nurses' knowledge about zika virus with respect to their socio-demographic characteristics. **Methods:** This study relied on the descriptive cross-sectional approach, as it is the most appropriate approach to achieve its objectives; Study Instrument A oral consent with self-administrative and constructed questionnaire consists of three part includes: Part I: Which includes (age, gender, marital status, level of education, clinical work, years of experience and residential). Part II: Concerned with knowledge about Zika Virus which is composed of (30) items. Part III: Concerned with knowledge of guillain barre syndrome which is composed of (10) items measured on (3) for the correct answer, (2) for the middle answer, and (1) for the wrong answer. **Result:** Out of (50) subjects participating in this study, their age ranged from 26-30 years old and made up (60.0 percent) of the total number of subjects at the mean age of 27.84 (±4.61). In terms of gender, male nurses were predominant (86.0%) as compared with females (14.0%). In regards to education attainment, preparatory nursing was predominated (36.0%) followed by those who are diploma (38.0%), and those who are bachelor's (26.0%). Years of experience, <5 years were (38.0%),5-10 years are (42.0%), while > 10 years are (20.0%). **Conclusion:** Sociodemographics such as age, Years of Experience, training sessions, and education are important factors associated with knowledge of ZIKV among nurses in Babylon. In addition, the differences in clinical and non-clinical nurses were observed specifically in terms of the practices towards ZIKV. Therefore, public health programs aiming at improving awareness of ZIKV should not only aim at targeting the communities. These programs should also target health care providers specifically those that are non-clinical, younger, without formal degrees, and with low income. **Recommendations:** Implement a health education program to increase awareness among the nurses working in outpatient clinics about Zika Virus and its effects on pregnant women and birth outcomes. Accelerate diagnosis and early intervention before symptoms worsen, and increase workshops to educate patients infected with the Zika virus and guide their families about the seriousness of the virus.

Chater One: Introduction

Zika virus (ZIKV) is a little known arbovirus that was Initially identified in Uganda in 1947 in a rhesus monkey used as a sentinel during sylvatic yellow fever surveillance in the Zika forest in Uganda [1]. The virus was first reported in Humans in Uganda and in Tanzania in 1952 [2]. Before 2007, ZIKV was reported as causing only sporadic human infections in tropical Africa and in some areas in Southeast Asia. Since 2007, several outbreaks have been documented across the Pacific Islands showing the viral circulation outside its previously known geographic region. Autochthonous transmission Of ZIKV in South America was reported in early 2015 Since the first report of Zika fever on the African continent until mid-2000, few scientific articles, mainly reporting human cases and describing potential vectors of ZIKV, have been published and, due to the absence of epidemic episodes, as well as serious clinical consequences of viral infection, the interest of the scientific community remained low. However, in 2007 the first large outbreak occurred on the island of Yap, in Micronesia, resulting in a drastic change in the outlook on the ZIKV infection and a growing interest for this newcomer to the world of arboviruses. Until recently, the clinical manifestations of ZIKV infection ranged from asymptomatic infections to mild, self-limited febrile illness, similar to that of A mild dengue-like syndrome, characterized by fever, headache, muscle and joint pains, as well as a characteristic maculopapular rash reminiscent to measles. Moreover, the disease Occurred mainly within a narrow equatorial belt from Africa to Asia. However, an association with neurological complications such as Guillain-Barre Syndrome and congenital microcephaly has been recently suspected [5,6], in particular following spreading of the virus in the Americas where the vectors are present. Given the rapid worldwide spread of ZIKV and the current pandemic in Latin America and the Caribbean, it is now considered as an emerging infectious disease.Zika virus is a mosquito-borne flavivirus that was first identified in Uganda in 1947 in Monkeys through a network that monitored yellow fever. It was later

identified in Humans in 1952 in Uganda and the United Republic of Tanzania. Outbreaks of Zika Virus disease have been recorded in Africa, the Americas, Asia and the Pacific. From Qahtan The 1960s to 1980s, human infections were found across Africa and Asia, typically Accompanied by mild illness. The first large outbreak of disease caused by Zika Infection was reported from the Island of Yap (Federated States of Micronesia) in 2007. In July 2015 Brazil reported an association between Zika virus infection and Guillain-Barré syndrome. In October 2015 Brazil reported an association between Zika virus infection and microcephaly.17

Signs and Symptoms

The incubation period (the time from exposure to symptoms) of Zika virus disease is Not clear, but is likely to be a few days. The symptoms are similar to other arbovirus Infections such as Dengue, and include fever, skin rashes, conjunctivitis, muscle and

Joint pain, malaise, and headache. These symptoms are usually mild and last for 2-7 Days.17

Complications of Zika virus

disease Based on a systematic review of the literature up to 30 May 2016, WHO has Concluded that Zika virus infection during pregnancy is a cause of congenital brain Abnormalities, including microcephaly; and that Zika virus is a trigger of Guillain-Barré syndrome. Intense efforts are continuing to investigate the link between Zika Virus and a range of neurological disorders, within a rigorous research framework.17

Transmission

Viral transmission occurs during the blood feeding of Mosquitoes. Even if mosquito bites are the main mode of transmission, some cases of non-vector-borne infection have also been reported, referred to as perinatal transmission [30], Probably following viral crossing of the placenta or during the delivery by viraemic mothers, with mother and baby presenting the same clinical signs of the disease. Although the

Virus has been detected in breast milk, no evidence exists as yet about the possible transmission via this route. It is of note That before spreading of ZIKV in the Americas, infection of newborns did not result in notable clinical manifestations, other than those observed in adults. Transmission by blood Transfusion has not yet been demonstrated although a potential risk cannot be excluded [31]. During the French Polynesia outbreak, the prevalence in blood samples was 1.9%, whereas 74% were found to be asymptomatic. However, the viral load in patients during the incubation period or in asymptomatic people has not been determined. The viral genome has been Detected in saliva [32] and urine [33]. This finding is of interest because the presence of viral RNA was revealed between two to three weeks after the onset of clinical symptoms, whereas, at that time, it was not yet detectable in blood Samples. Finally, one sexual transmission was reported in the USA [34] and the presence of ZIKV was demonstrated in the semen .[1

Guillain-Barré Syndrome

It is a rare disease in which the peripheral nerves are attacked and damaged, It is a rare disorder that mostly affects nerves throughout the body.• It occurs because the immune system attacks parts of the nervous System.• The first symptoms are usually weakness, tingling and numbness in Extremities.The exact cause of the syndrome is still unknown. There are treatments that reduce the severity of the disease and relieve Its symptoms. It occurs at all ages but more commonly in adults With varying degrees of weakness, it can lead to complete Paralysis of the body.

Types of Guillain-Barré Syndrome

• Acute inflammatory demyelinating polyradiculoneuropathy: the most Common.

• Miller Fisher syndrome.

• Acute motor axonal neuropathy: less common.

• Acute motor-sensory axonal neuropathy: less common.

Causes of Guillain-Barré Syndrome

The cause of Guillain-Barré syndrome is unknown, but it is often preceded by An infectious (viral or bacterial) disease, such as respiratory or gastrointestinal

Infections. The immune system begins to attack the nerves, causing damageand inflammation in the layer coating the nerve fibers (myelin), and thus Preventing the nerves from transmitting nerve signals to the brain and leading To weakness, numbness or paralysis.

Risk Factors of of Guillain-Barré Syndrome

- Age.
- Viral or bacterial infections (especially with campylobacter).
- Surgeries.
- Lymphoma.
- AIDS.

Symptoms:

- Numbness, tingling and weakness in extremities.
- Unsteady walking.
- Difficulty with eye or face movement.
- Rapid heart rate.
- Low or high blood pressure.
- Difficulty breathing.

When to see a doctor

You should see a doctor in case you have the previous symptoms and signs in Addition to choking on saliva or difficult speaking, chewing or swallowing.

Complications of Guillain-Barré Syndrome

- Difficulty breathing.
- Heart and blood pressure disorders.
- Problems with bowel and bladder function.

• Permanent numbness.

• Thromboembolism.

• Complete paralysis of the body.

Diagnosis of Guillain-Barré Syndrome

• It is difficult to diagnose Guillain-Barré in its early stages because of the Many disorders that may manifest with similar symptoms. Tests include:

• Physical examination.

• Medical history.

• Taking a sample from the spinal fluid (lumbar puncture).

Prevention and treatment

Over the past few years, the scientific community has made considerable efforts to develop a Vaccine and bring it to licensure for public use. Studies on rhesus macaques suggest that the adaptative Immune response induced by ZIKV is protective against re-challenge by the homologous virus [11], Raising the hope for the potential to development a ZIKV vaccine. Different vaccine candidates have Been tested in vitro, in vivo, and some progressed to clinical trials. The different candidates include DNA vaccines expressing pre-membrane and envelope proteins, inactivated virus vaccine, recombinantProtein subunit vaccine, lipid nano-particle encapsulated mRNA vaccines, virus-like particles and Live-attenuated vaccines [12]. This is encouraging; however, no candidate has been licensed yet and Several challenges still need to be addressed before an effective vaccine can be brought to the market. For example, the reduction in Zika cases makes vaccine efficacy trials in the absence of an outbreak Difficult to perform [13]. To date, there is no specific antiviral drug targeting ZIKV. Several new therapeutic candidates and Existing drugs have been screened and proposed to target ZIKV via different mechanisms. Direct-acting Antiviral drugs, including nucleoside analogs and polymerase inhibitors, target the RNA-dependent RNA polymerase (RdRp). Drugs that target host cell processes are directed against any of the different Steps of the viral life cycle, such as purine or pyrimidine synthesis inhibitors or ZIKV-

entry inhibitors. Several drugs have shown anti-ZIKV activity in vitro and in animal models; however, to date, none Have entered into clinical trials and shown any evidence of anti-ZIKV activity in humans [14;15]

There is no known cure for this syndrome, but there are drugs that reduce the Severity and alleviate the symptoms. These include:

• Replacing the plasma to get rid of certain antibodies that contribute to The immune system attack on peripheral nerves.

• Immunoglobulin (intravenous immunoglobulin): this contains antibodies Taken from blood donors to block the antibodies causing the damage.

• Drugs to relieve the symptoms (such as: analgesics).

• Rehabilitation: through physical, functional and speech therapy.

"Nurse roles in Prevent of Guillain-Barré Syndrome

Healthcare personnel must adhere to Standard Precautions in all healthcare settings.

• This is existing guidance, but the Zika virus outbreak provides an opportunity to emphasize the importance of following these existing protective recommendations 16.

• Standard Precautions are basic measures to prevent infection and are a group of practices that apply to all patients, regardless of suspected or confirmed infection status, in any setting in which health care is delivered.• The goals of implementing standard precautions are to • Prevent direct contact between a patient's body fluids and the healthcare provider's mucous membranes or broken skin,

• To protect healthcare providers and prevent them from transmitting potentially infectious material from one patient to another; and

• To avoid percutaneous exposure to contaminated sharp implements If, based on screening, the pregnant woman is eligible for testing, providers and counselors should provide appropriate pretest counseling to inform decisions on whether or not to test.

• Pre-test counseling is recommended before and after testing.

• Counseling includes a discussion of the limitations of the tests and the potential risks of misinterpretation of test results, including false positive and false. If, during the testing screening, a patient reports extensive exposure to any area with risk of Zika prior to her current pregnancy,

• Pre-test counseling is recommended before and after testing.

• Counseling includes a discussion of the limitations of the tests and the potential risks of misinterpretation of test results,

How should healthcare providers counsel women of reproductive age who want to delay or avoid pregnancy in areas with risk of Zika

Preventing unintended pregnancy during the Zika virus outbreak is one of the primary strategies to reduce the number of pregnancies affected by Zika virus. Healthcare providers counseling women who want to delay or avoid pregnancy should counsel women on the full range of contraceptive methods and in the context of Zika virus help them to select that most effective method they can use correctly and consistently while recognizing the decision about what type of contraceptive method to use is a personal decision and should be made by the individual or couple in consultation with their healthcare provider.

Objectives

1. To assess nurse knowledge about zika virus.
2. To investigate the differences in nurses knowledge about zika virus with respects their socio-demographic characteristics.

Chapter two Material and Method

This study relied on the descriptive cross-sectional approach, as it is the most appropriate approach to achieve its objectives. This approach is concerned with determining the current situation of the problem, then describing, analyzing and interpreting it using statistical analysis. The research sample represents part or a limited number of the total of nurses**.**

A purposive sample of 10% depending on the statistics the sample collection period was selected using the non-probability sampling method.

Setting of the Study

The study is carried out in Babylon Hospital ,This hospital affiliated with the Babel Health Department.

Study Instrument

A oral consent with self-administrative and constructed questionnaire consist of three part includes: Part I: Which includes (age, gender, marital status, level of education , clinical work, years of Experience and residential). Part II: Concerned with knowledge about Zika Virus which composed of (30) items. Part III: Concerned with knowledge of guillain barre syndrome which composed of (10) items measured on (3) for the correct answer, (2) for the middle answer, and (1) for the wrong answer.

Participants Sample: A purposive (non-probability) sample was selected (50) sample that include (43 and 7) males and females respectively from nurses at the Babylon hospital.

Methods of Data Collection

Through the used descriptive approach statistical to analysis the distribution of study characteristics that includes, frequencies, percentages, mean of scores, and standard divagation; and inferential statistical approach data to analysis that relationship of knowledge with demographic data include Chisquared test

Chapter THREE

Results of the Study

Under the objectives of current study findings, the descriptive and inferential statistic approach organized in tables and figures that includes the followings:

Table 1:Distribution of Studied Sample by their Socio-Demographic Variables (SDVs)

SDVs	Rating	No.	%
Age/years (*M± SD= 27.84±4.61*)	21-25 years old	13	26.0
	26-30 years old	30	60.0
	31-35 years old	3	6.0
	36-40 years old	4	8.0
Gender	Male	43	86.0
	Female	7	14.0
Educational Attainment	Preparatory nursing	18	36.0
	Diploma	19	380
	Bachelor's	13	26.0
Years of Experience	<5 years	19	38.0
	5-10 years	21	42.0
	>10 years	10	20.0
Training Sessions	No trained	3	6.0
	1-2 session	25	50.0
	3-4 sessions	19	38.0
	>5 sessions	3	6.0

This table represents the descriptive statistics of socio-demographic information of the nurses in term of frequencies and percentage. Out of (50) subjects participating in this study, their age ranged from 26-30 years old and made up (60.0 percent) of the total number of subjects at mean age *27.84* (*±4.61*). In terms of gender, male nurses were predominant (86.0%) as compared with female (14.0%). In regards with education attainment , the preparatory nursing were predominated (36.0%) followed by those who are diploma(38.0%), and those who are Bachelor's (26.0%). Years of experience, <5 years were (38.0%),5-10 years are (42.0%),while >10years are (20.0%).

Training Sessions related finding , No trained were (6.0%), and those who are 1-2 session (50.0%), 3-4 sessions were (38.0%), and >5 sessions are (6.0%).

The (Mohammed et all;2020)indicates that questionnaires of the participant's ages ranged between 25_34 (55.6)% and current study Demonstrate 26-30 (60 %

Table 2: Overall Assessment of Nurses Knowledge towards zika virus

Nurses Knowledge	No.	%	*M (±SD)*
Poor (*M=39-52*)	35	70.0	*51.82±6.875*
Moderate (*M=52.1-65*)	13	26.0	
Good (*M=65.1-78*)	2	4.0	
Total	50	100.0	

M: Mean for total score, SD=Standard Deviation for total score

The results showed that (70.0%) of the nurses showed a poor knowledge towards zika virus as described by low average, which is equivalent to *51.82 (±6.875)*.

Table 3:Multiple Comparison of Nurses Knowledge based on Age Groups

(I) Age	(J) Age	(I-J) Mean Difference	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
21-25	26-30	.03820	.05274	.920	-.0680-	.1444
	31-35	-.00197-	.10173	.265	-.2068-	.2028
	36-40	.06854	.09081	.706	-.1143-	.2513
26-30	21-25	-.03820-	.05274	.920	-.1444-	.0680
	31-35	-.04017-	.09618	.261	-.2338-	.1534
	36-40	.03034	.08454	.640	-.1398-	.2005
31-35	21-25	.00197	.10173	.265	-.2028-	.2068
	26-30	.04017	.09618	.261	-.1534-	.2338
	36-40	.07051	.12131	.225	-.1737-	.3147
36-40	21-25	-.06854-	.09081	.706	-.2513-	.1143
	26-30	-.03034-	.08454	.640	-.2005-	.1398
	31-35	-.07051-	.12131	.225	-.3147-	.1737

The nurses knowledge among those who are aged 21-25 are not differs from those who are 26-30 (p= .920), 31-35 (p= .265) and 36-40 (p= .706). The nurses knowledge among those who are aged 26-30 are not differs from those who are 21-25 (p= .920), 31-35 (p= .261) and 36-40 (p= .640). The nurses knowledge among those who are aged 31-35 are not differs from those who are 21-25 (p= .265), 26-30 (p= .261) and 36-40 (p= .225). The nurses knowledge among those who are aged 36-40are not differs from those who are 21-25 (p= .706), 26-30 (p= .640) and 31-35 (p=225)

Table 4:Multiple Comparison of Nurses Knowledge based on Gender

	Gender	Mean	SD	t-value	d.f	*P-value*
Knowledge	Male	1.3399	.16014	1.268	48	.211
	Female	1.2601	.10616			

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The independent sample t-test showed that there were no-statistically significant differences in knowledge between nurses who are male and those who are female (*t=1.268; p= .211*).

Table 5:Multiple Comparison of Nurses Knowledge based on Education Level

(I) Education	(J) Education	(I-J)Mean Difference	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Preparatory nursing	Diploma	-.00787-	.03715	.833	-.0826-	.0669
	Bachelor's	-.25016-*	.04111	.000	-.3329-	-.1675-
Diploma	Preparatory nursing	.00787	.03715	.833	-.0669-	.0826
	Bachelor's	-.24229-*	.04066	.000	-.3241-	-.1605-
Bachelor's	Preparatory nursing	.25016*	.04111	.000	.1675	.3329
	Diploma	.24229*	.04066	.000	.1605	.3241

The nurses knowledge among those who are education level Preparatory nursing are not differs from those who are diploma (p= .833), and Bachelor's (p= .000). The nurses knowledge among those who are education level Diploma are not differs from those who are Preparatory nursing (p= .833), Bachelor's (p= .000) and . The nurses knowledge among those who are education level Bachelor's are not differs from those who are Preparatory nursing (p= .000), Diploma (p= .000) .

Table 6: Multiple Comparison of Nurses Knowledge based on Years of Experience

(I) Experience	(J) Experience	(I-J) Mean Difference	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
>5 years	5-10 years	-.04672-	.04907	.346	-.1454-	.0520
	>10 years	-.08799-	.06055	.153	-.2098-	.0338
5-10 years	>5 years	.04672	.04907	.346	-.0520-	.1454
	>10 years	-.04127-	.05955	.492	-.1611-	.0785
>10 years	>5 years	.08799	.06055	.153	-.0338-	.2098
	5-10 years	.04127	.05955	.492	-.0785-	.1611

The nurses knowledge among those who are Years of Experience >5 years are not differs from those who are 5-10 years (p= .346), >10 years (p= .492) .The nurses knowledge among those who Years of Experience 5-10 years are not differs from those who are >5 years (p= .346), >10 years (p= .492) . The nurses knowledge among those who are Years of Experience >10 years are not differs from those who are >5 years (p= .153), 5-10 years (p= .492) .

Table 7: Multiple Comparison of Nurses Knowledge based on Training

(I) Training	(J) Training	(I-J) Mean Difference	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
No trained	1-2 session	-.06051-	.09241	.516	-.2465-	.1255
	3-4 sessions	-.06883-	.09396	.468	-.2580-	.1203
	>5 sessions	-.26496-*	.12349	.037	-.5135-	-.0164-
1-2 session	No trained	.06051	.09241	.516	-.1255-	.2465
	3-4 sessions	-.00831-	.04603	.857	-.1010-	.0843
	>5 sessions	-.20444-*	.09241	.032	-.3905-	-.0184-
3-4 sessions	No trained	.06883	.09396	.468	-.1203-	.2580
	1-2 session	.00831	.04603	.857	-.0843-	.1010
	>5 sessions	-.19613-*	.09396	.042	-.3853-	-.0070-
>5 sessions	No trained	.26496*	.12349	.037	.0164	.5135
	1-2 session	.20444*	.09241	.032	.0184	.3905
	3-4 sessions	.19613*	.09396	.042	.0070	.3853

The nurses knowledge among those who are Training No trained are not differs from those who are 1-2 session (p= .516), 3-4 sessions (p= .468) and >5 sessions (p= .037). The nurses knowledge among those who are Training 1-2 session are not differs from those who are No trained (p= .516), 3-4 sessions (p= .857) and >5 sessions (p= .042). The nurses knowledge among those who are Training >5 sessions are not differs from those who are No trained (p= .037), 1-2 session (p= .032) and 3-4 sessions (p= .042).

Chapter four Discussion

According to literature, this is the first study that sought to examine nurses towards ZIKV in iraq. This study demonstrated that sociodemographic are associated with knowledge nurses in iraq. Specifically, clinicians had increased odds of exhibiting better practices for ZIKV while nurses without a degree had reduced odds of having good knowledge and positive toward ZIKV, respectively .

In current study findings, the most of participants were male at mean age equal to 27.84±4.61 .

Mohammed et al (2020) indicates that questionnaires of the participant's ages ranged between 25_34 (55.6)% and current study Demonstrate the 26-30 (60)% Result is not agree, because the age was more cooperative with us when collecting samples.

Mohammed et al (2020) indicates that questionnaires of the participant's 36.6%male and current study Demonstrate 86%male results is not agree due to the collecting samples we were in the emergency department and there were more cooperative men.

The independent sample t-test showed that there were no-statistically significant differences in knowledge between nurses who are male and those who are female (t=1.268; p= .211)

Compared to previous studies in , healthcare workers were observed to have relatively high knowledge (60.2%), . In Indonesia, only 35.9% of healthcare workers had good knowledge of ZIKV. St Kitts and Nevis is a smaller country as compared to Indonesia. As such, information on new cases and emerging diseases may be easily passed to people including healthcare workers. This might explain the differences in the observed knowledge rates between the two countries (19)

The current study revealed that nurses without formal degree were less likely to exhibit good knowledge and better practices towards ZIKV. This makes intuitive sense because education has long been associated with good health practices including

uptake of health information . A study conducted in the Middle East revealed significant association between education and knowledge of ZIKV. Educated nursesare more likely to live in the urban areas and have access to information as compared to non-educated nurses and subsequently, this may impact on their knowledge and attitude towards ZIKV(20)

Ahmed et al indicates that questionnaires of the participant's 16% Diploma and current study Demonstrate 36%Diploma, the result is not agree because of the much work they do in my hospital.

Ahmed et al in 2020 indicates that questionnaires of the participant's <10 (86%)Years of Experience and the current study Demonstrate (5-10) 42%, results is agree because it is the age group that participated in filling out the questionnaire, and the working period for it ranged between 5-10 years .

mohammed et al in 2020, The questionnaires of nurses' knowledge about Zika virus ranged from poor >50% (0_12) to current study poor >70% (39_52). The results is not agree, because not conducting scientific seminars or lectures on the Zika virus for nurses working in hospitals, but these results are beneficial to us because the subject of the Zika virus is not known to nurses, and that is why we chose this topic.

This table talks about the knowledge of nurses related to age, as there is no difference in age levels. In our study the different in the levels of age was non significant related to the nursing knowledge about the zika viruse but in another researche conduct by (Ahmed et al; in 2020 in Beni_suef) was the different in the level of age,At the knowledge of the age (26_30)39.7%> from the age (21_25)13.7%, the age was significant through an increase in age the knowledge of the people and nurses was higher.

There are several strengths related to this study. First, this study was able to access both clinical and non-clinical health care providers, hence was able to provide an overview and comparison between these two groups. Secondly, the study was

conducted at Babylon Hospital which allowed for inclusion of a wide range of professionals. This was a cross-section study and as such, we could not infer causality to the associations observed. Further, the study relied on self-administered questionnaire for information which might be prone to interviewee error as some may

In this Covid19 pandemic era, these findings may not be directly relevant however, we assume that this study still contributes the important findings for the clinical and non-clinical nurses because it highlights the need to engage non-clinical nurses for improve their understanding about infectious disease that could lead to improve their practices.

Chapter Five: Conclusion and Recommendation

Conclusion:

Nurses play a critical role in prevention and management of Zika infection, particularly for women who are pregnant. Clinical responsibilities and skill sets require nurses to be knowledgeable of current scientific information on the Zika virus, prevention methods and birth outcomes to provide accurate and accessible patient education, anticipatory guidance and patient-centered counseling.The dramatic consequences of ZIKV on public health since have highlighted the threat that ZIKV represents. Although the pandemic has waned since that time, the virus is still circulating, and areas with competent vectors are at risk of ZIKV re-emergence. An estimated 3.6 billion people live in at-risk areas. Several challenges still need to be addressed such as the development of specific drugs and vaccines, the need for improved epidemiological surveillance in at-risk areas, and the determination of long-term consequences of ZIKV infection, in particular in cases of prenatal exposure.

Recommendations regarding Zika virus

Implement health education program to increase awareness of the nurses working in outpatient clinic about Zika Virus and its effects on pregnant women and birth outcome.Accelerate diagnosis and early intervention before symptoms worsen, and increase workshops to educate patients infected with Zika virus and guide their families about the seriousness of the virus. People with symptoms such as rash, fever or joint pain should get plenty of rest, drink fluids, and treat symptoms with antipyretics and/or analgesics. If you decide to travel, prevent mosquito bites and sexual exposure to Zika during and after travel. If traveling without male partner, wait 2 months after return before becoming pregnant. Prevent mosquito bites during and after travel. Use condoms or do not have sex for the rest of the pregnancy..A diagnosis of Zika virus infection can only be confirmed by laboratory tests of blood or other body fluids, and it must be differentiated from cross-reactive related flaviviruses.

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الاستبانه

الجزء الاول: المعلومات الديموغرافية:

1. **العمر:**
   سنه
2. **الجنس:**
   ذكر أنثى
3. **الحالة الاجتماعية:**
   متزوج اعزب مطلق ار
4. **التحصيل التعليمي:**
   خريج إعدادية معهد كلية فـ
5. **حاله العمل الصحية:**
   سريريه غير سريريه
6. **سنوات الخبرة :**
7. **السكن :** ريف مدينة

الجزء الثاني: معلومات عن معارف الممرضين حول فايروس زيكا:

1. **زيكا هو من:**
   أ- أصل بكتيري
   ب- أصل فيروسي
   ت- لا أعلم

2. **مصادر المعرفة عن زيكا**
   أ- إنترنت
   ب- التلفاز
   ت- آخرون

3. **العلامات والأعراض:**
   أ- حُمى
   ب- آلام العضلات والمفاصل
   ت- لا أعلم

4. **فترة الحضانة هي:**
   أ- 2-7 أيام
   ب- 7-14 يوم
   ت- 15-30 يومًا

5. **هل يسبب زيكا فايروس تشوهات خلقية؟**
   أ- نعم
   ب- لا
   ت- لا أعلم

6. **العيوب الخلقية الناتجة عن:**
   أ- تمدد الأوعية الدموية
   ب- صغر الرأس
   ت- الشفة الأرنبية وشق سقف الحلق

7. **المتلازمات المرتبطة بـ زيكا فايروس:**
   أ- زيكا من متلازمة داون
   ب- متلازمة غيلان باريه
   ت- متلازمة المغص والبكاء

8. **حصلت زيكا فايروس على اسمها من:**
   أ- مكان المنشأ

ب- أنواع البعوض
ت- لا أعلم

9. هل يوجد لقاح ضد زيكا فايروس ؟
أ- نعم
ب- لا
ت- لا أعلم

10. زيكا فايروس هو مرض معد؟
أ- نعم
ب- لا
ت- لا أعلم

11. هل هو مرض ينتقل عن طريق الاتصال الجنسي؟
أ- نعم
ب- لا
ت- لا أعلم

12. تعرف الاختبار التشخيصي لـ زيكا فايروس؟
أ- نعم
ب- لا
ت- لا أعلم

13. من هم الأكثر عرضة لخطر الإصابة بـ زيكا فايروس:
أ- الأطفال
ب- النساء الحوامل
ت- لا أعلم

14. زيكا فايروس ينتقل بواسطة:
أ- البعوض
ب- الطعام والماء الملوثان
ت- لا أعلم

15. هل زيكا فايروس قاتل؟
أ- نعم
ب- لا
ت- لا أعلم

16. إذا توفر لقاح ضد زيكا ،هل تفكر في التطعيم؟
أ- نعم
ب- لا
ت- لا اعلم

17. من يتحمل مسؤولية حمايتك من الإصابة بعدوى زيكا؟
أ- المسؤولية الخاصة
ب- طبيب / محلي
ت- السلطات الصحية

18. في رأيك ، هل من الضروري زيادة المعلومات حملات للوقاية من زيكا؟
أ- نعم
ب- لا
ت- لا اعلم

19. أفضل طريقة للوقاية من زيكا هي حماية نفسك وعائلتك من لدغات البعوض:
أ- استخدم طارد الحشرات المسجل من وكالة حماية البيئة .
ب- ارتدِ قمصانًا بأكمام طويلة وسراويل طويلة و نم تحت ناموسية سرير في حالة عدم توفر غرف مكيفة أو مغطاة أو إذا كنت تنام في الهواء الطلق.
ت- كل ما سبق.

20. هل يوجد علاج لفيروس زيكا؟
أ- نعم
ب- لا
ت- لا اعلم

21. هل تعتقد أن هناك صلة بين زيكا ومتلازمة غيلان باريه؟

أ- نعم
ب- لا
ت- لا اعلم

22. هل تعتقد أن زيكا قضية مهمة/ مشكلة في مجتمعك؟

أ- نعم
ب- لا
ت- لا اعلم

23. ما هي مخاطر إصابتك بفيروس زيكا ؟

أ- مخاطرة عالية
ب- مخاطر متوسطة
ت- مخاطر قليلة

24. يجب على النساء تجنب الحمل بسبب زيكا.

أ- موافق بشدة
ب- موافق
ت- تعارض

25. ما أكثر ما يقلقك أو يقلقك بشأن زيكا؟

أ- يمكن أن يجعلك زيكا مريضا
ب- يمكن أن يقتلك زيكا و يمكن أن يتسبب زيكا في إصابة الأطفال بإعاقات
ت- كل ما سبق

26. منذ أن سمعت عن زيكا ، هل أنت اتخذت أي إجراء لمنع الخاص بك المجتمع من الإصابة بفيروس زيكا؟

أ- نعم
ب- لا
ت- لا اعلم

27. كيف يمكنك تقليل أو إزالة البعوض من منزلك / مجمعك؟

أ- الرش / التبخير
ب- استخدم مبيدات اليرقات و حافظ على البيئة نظيفة وقم بإزالة القمامة
ت- كل ما سبق

28. إذا كنت أنت أو أي شخص في منزلك (عدا امرأة حامل) مصابة بحمى شديدة الآن ماذا ستفعل؟

أ- ابق في المنزل ولا تفعل شيئًا / لا تتناول أي دواء
ب- ابق في المنزل وتناول الأدوية لتخفيض الحمى وتسكين الآلام وتناول الكثير من السوائل
ت- كن معزولا

29. هل هناك مخاطر إجهاض للحامل؟

أ- نعم
ب- لا
ت- لا اعلم

30. للقضاء على مواقع تكاثرها البعوض بوسائل منها؟

أ- تغطية حاويات تخزين المياه، وتفريغ أواني الزهور من المياه الراكدة فيها.
ب- وتنظيف الأماكن من القمامة والإطارات المستعملة.
ت- كل ما سبق.

ثالثا: معلومات عامه عن متلازمه غيلانه باريه

1. من الاختبارات التي يمكن طلبها لمساعدة الطبيب في تشخيص متلازمة جيلان باريه؟

أ. اختبار Edrophonium

ب- البزل القطني

ث- تخطيط كهربية العضل(Electromyography)

2. متلازمة غيليان باريه هي:

أ- مرض مناعي نادر يمكن أن يؤثر على أي جزء من الجهاز العصبي خارج الدماغ والحبل الشوكي، أي على ما يسمى بالجهاز العصبي المحيطي.
ب- اضطراب وراثي يسببه الانقسام غير الطبيعي في الخلايا مما يؤدي إلى زيادة النسخ الكلي أو الجزئي في الكروموسوم 21.
ت- هي ظاهرة نفسية تصيب الفرد عندما يتعاطف أو يتعاون مع عدوه أو مَن أساء إليه بشكل من الأشكال.

3. في هذه المتلازمة يقوم جهاز المناعة في الجسم بمهاجمة
أ- الأعصاب.
ب- القلب
ت- الدماغ

4. عامل الخطر الأكثر شيوعًا لمتلازمة غيلان باريه هو
أ- عدوى العطيفة الصائمية
ب- التاريخ العائلي
ت- لا اعلم

5. عادةً ما يكون أول أعراض متلازمة غيلان باريه هو
أ- الإحساس بالوخز في أصابع القدمين والساقين.
ب- شلل.
ت- كل ما سبق.

6. من العلاجات للتخفيف من حدة المرض:
أ- تبادل البلازما
ب- إعطاء جرعات عالية من الغلوبولين المناعي (الأجسام المضادة)

ت - كل ما سبق

7. إن مرحلة التعافي ومدة الشفاء من متلازمة غيلان باريه تستغرق
أ- مدة 6 أشهر إلى سنة
ب- سنه الى سنتين
ت- سنتين الى اربعه

8. نسبة الشفاء من مرض غيلان باريه تشكل
أ- 60% من الحالات.
ب- 75%
ت- 80%

9. وتكمن خطورة مرض الأعصاب في
أ- عدم القدرة على إعادة تجديد الخلايا العصبية
ب- عدم القدرة على التركيز
ت- عدم القدرة على النوم

10. من العوامل الخطورة للمتلازمه:
أ- العمر والإصابة بعدوى فيروسية أو بكتيرية (خاصة بكتيريا كومبيلوباكتر).
ب- العمليات الجراحية.
ت- كل ماسبق

الخلاصة

الخلفية: يتسبب فيروس زيكا في مرض (متلازمة غيلان باريه) حيث تتعرض الأعصاب الطرفية للهجوم ، وتتلف في الجهاز العصبي. يحدث لأن الجهاز المناعي يهاجم أجزاء من الجهاز العصبي • الأعراض الأولى عادة ما تكون الضعف والوخز والخدر. فيروس زيكا ينتقل عن طريق البعوض **الأهداف**: تقييم معرفة الممرضات بفيروس زيكا ، والتحقيق في الاختلافات في معرفة الممرضات حول فيروس زيكا فيما يتعلق بخصائصهم الاجتماعية والديموغرافية. **المنهجية**: اعتمدت هذه الدراسة على المنهج الوصفي المقطعي ، فهو أنسب منهج لتحقيق أهدافه. أداة الدراسة - تتكون الموافقة الشفوية مع الاستبيان الذاتي والإدارة المكون من ثلاثة أجزاء تشمل: الجزء الأول: والذي يشمل (العمر والجنس والحالة الاجتماعية ومستوى التعليم والعمل السريري وسنوات الخبرة والسكن). الجزء الثاني: ويهتم بمعرفة فيروس زيكا ويتكون من (30) فقرة. الجزء الثالث: ويختص بمعرفة متلازمة غيلان بري ، ويتكون من (10) فقرات تقاس على (3) للإجابة الصحيحة ، و (2) للإجابة الوسطى ، و (1) للإجابة الخاطئة. **النتائج**: من بين (50) شخصًا مشاركًا في هذه الدراسة ، تراوحت أعمارهم بين 26-30 عامًا وشكلوا (60.0 بالمائة) من إجمالي عدد الموضوعات في متوسط العمر 27.84 (± 4.61). من حيث الجنس ، كانت الغلبة للممرضات الذكور (86.0٪) مقارنة بالإناث (14.0٪). فيما يتعلق بالتحصيل العلمي ، غلب التمريض التحضيري (36.0٪) يليه الحاصلون على الدبلوم (38.0٪) والبكالوريوس (26.0٪). سنوات الخبرة <5 سنوات كانت (38.0٪) 5-10 سنوات (42.0٪) بينما> 10 سنوات (20.0٪).**الاستنتاجات**: تعتبر الديموغرافيا الاجتماعية مثل العمر وسنوات الخبرة وجلسات التدريب والتعليم عوامل مهمة مرتبطة بمعرفة ZIKV بين الممرضات في بابل. بالإضافة إلى ذلك ، لوحظت الاختلافات في الممرضات السريرية وغير السريرية على وجه التحديد من حيث الممارسات تجاه ZIKV. لذلك ، يجب ألا تهدف برامج الصحة العامة التي تهدف إلى تحسين الوعي بـ ZIKV إلى استهداف المجتمعات فقط. يجب أن تستهدف هذه البرامج أيضًا مقدمي الرعاية الصحية على وجه التحديد أولئك الذين هم غير إكلينيكيين ، وأصغر سنًا ، وليس لديهم شهادات رسمية ، وذوي دخل منخفض. **التوصيات**: تنفيذ برنامج تثقيف صحي لزيادة الوعي بين الممرضات العاملات في العيادات الخارجية حول فيروس زيكا وأثره على النساء الحوامل ونتائج الولادة. الإسراع في التشخيص والتدخل المبكر قبل تفاقم الأعراض ، وزيادة ورش العمل لتثقيف المرضى المصابين بفيروس زيكا وإرشاد أسرهم حول خطورة الفيروس.

المعارف الممرضين بفيروس زيكا

مشروع تخرج مقدم لكلية التمريض جامعة بابل ضمن متطلبات الحصول على درجة البكالوريوس في التمريض

بواسطة

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تحت إشراف

الأستاذ الدكتورة ندى خزعل هندي