INJNS (36)2 (2023) 29-40

Iraqi National Journal of Nursing Specialties

Journal homepage: https://injns.uobaghdad.edu.iq/index.php/INJNS

Effectiveness of education program on Nurses' Knowledge about Treatment and Follow-up of Hydatidiform Mole Pregnancy

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ARTICLE INFO

Article history:

Received 23/03/3023
Accepted 11/07/2023
Published: 31/12/2023

Keywords:

hydatidiform mole pregnancy,
education program,
knowledge,
treatment,
follow-up

ABSTRACT

Objective(s): the study aimed to evaluate knowledge of nurses about treatment and follow-up of Hydatidiform mole pregnancy, and determine the effectiveness of the education program on nurses' knowledge.

Methods: a quasi-experimental design was carried out on nurses who work in gynecological units with the application of pretest and posttest design, the nurses were exposed to pre-test, implementation of education program, post–test one immediately after the application of the program, and post-test two was done after two weeks after the first post-test. The study started from January 17th, 2022 to May 2nd, 2023. Non probability (purposive sample) was selected, the study sample consists of (50) nurses who work in gynecological units of Baghdad hospitals. Validity of the study questionnaire was determined through a panel of (12) experts and the reliability were determined by test-retest approach, the statistical analysis of the data was conducted through the application of descriptive and inferential statistical analysis procedures.

Results: the result revealed that age group 20-less than 26 years of which 56% of nurses with an average age of 26±5 years. The level of nurses' knowledge about treatment and "follow up of hydatidiform mole pregnancy was poor during the pre-test (Mean score= .32). During the post-test 1 and 2, the nurses show good level of knowledge (Mean score= .98 and .89) in which the mean scores show good level after implementation of the program and confirmed its effectiveness.

Conclusion: The study confirmed the effectiveness of the education program on nurses' knowledge about treatment and follow-up of Hydatidiform mole pregnancy

Recommendations: to improve the nursing role in patient care, It is important to design a booklet, and flex about treatment and follow-up care about molar pregnancy for nurses. The establishment of short workshops involves lecture about hydatidiform mole. Encouraging the Ministry of Higher Education to improve and develop educational curricula Further studies can be conducted on wide range variable.

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https://doi.org/10.58897/w7jr0619 2023 College of Nursing. Published by University of Baghdad

فاعلية برنامج تعليمي في معارف الممرضات حول معالجة ومتابعة حمل الرحى العذارية

المستخلص

الأهداف: تقويم معارف الممرضات حول علاج ومتابعة حمل الرحى العذارية ، وتحديد فعالية برنامج تعليمي حول حمل الرحى العذارية في معارف الممرضات.

المنهجية: تم استخدام تصميم دراسة شبه تجريبي على الممرضات ممن يعملن في ردهات الامراض النسائية مع تطبيق مناهج الاختبار القبلي والبعدي لتقييم فعالية البرنامج التعليمي على معارف الممرضات في حمل الرحى العذارية ، وتعرضت الممرضات إلى الاختبار القبلي ،وتم تنفيذ البرنامج ،بعدها تم اجراء الاختبار البعدي الاول بعد تطبيق البرنامج مباشرة ، والاختبار البعدي الثاني بعد أسبوعين من الاختبار البعدي الأول. بدأت الدراسة من ١٧ كانون الثاني ٢٠٢٢ حتى٢ايار ٢٠٢٣. غير احتمالية (عينة غرضية) تكونت عينة الدراسة من (٥٠) ممرضة تعمل في وحدات الامراض النسائية في مستشفيات بغداد. تتكون أداة الدراسة من مجالين، المجال الأول هو الخصائص الاجتماعية والديموغرافية، والمجال الثاني معارف الممرضات حول علاج ومتابعة حمل الرحى العذارية. تم تحديد مصداقية الاستبيان من خلال لجنة خبراء تكونت من (١٢) خبيراً ، تم تحديد مدى مصداقية الاستبيان من خلا إعادة الاختبار ، وتم إجراء البيانات الإحصائية والتحليلية من خلال إجراء التحليل الإحصائي الوصفي والاستنتاجي.

النتائج: اشارت نتائج الدراسة ان متوسط اعمار الممرضات 5±26 سنوات منهن ٥٦٪ في الفئة العمرية من (٢٠-٢٦ سنة) , تظهر الممرضات مستوى ضعيف من المعرفة فيما يتعلق بالعلاج أثناء الاختبار القبلي (متوسط الدرجة = ..٢٩) ومستوى ضعيف للمعرفة المتعلقة بمتابعة الحمل العذارية أثناء الاختبار القبلي (متوسط الدرجة = .32) ، بينما تظهر الممرضات مستوى جيداً من المعرفة (متوسط الدرجات = .٩٨ و .٨٩) بعد تطبيق البرنامج.

الاستنتاجات: اكدت الدراسة فعالية البرنامج التعليمي في معارف الممرضات حول علاج و متابعة حمل الرحى العذارية.

التوصيات: لتحسين دور التمريض في رعاية المرضى, من المهم تصميم كتيب و مطويات حول علاج و متابعة الحمل العذاري, إقامة ورش عمل قصيرة تتضمن محاضرات عن الحمل العذاري. تشجيع وزارة التعليم العالي على تحسين وتطوير المناهج التعليمية , يمكن إجراء المزيد من الدراسات على نطاق اوسع من المتغيرات.

الكلمات المفتاحية: الحمل العذاري, برنامج تعليمي, المعرفة, معالجة, متابعة

Introduction

According to previous statistics In Iraq, the incidence of hydatidiform mole is 1 in 221 women. In Basra, the incidence of molar pregnancy was 1.7/1000 deliveries and choriocarcinoma was 0.04/1000 deliveries. The incidence of gestational trophoblastic disease in Erbil City at Maternity Teaching Hospital 1 in 318 is similar to the incidence in some Middle East and Far Eastern countries[1].

The incidence of hydatidiform moles (HM) varies by area but has significantly decreased over time. The introduction of global health coverage in Thailand in 2002 led to a variety of health services around the country. However, these laws' effects on cases of gestational trophoblastic disease (GTD) in Thailand have not been documented [2].

Hydatidiform moles can reoccur in a variety of ways in developing areas, where some nations, such those in Asia or Africa, have problems that are 10 times more common. Because of improvements in medical research and more palatable food sources, many illnesses have a tendency to get worse with time. Molar pregnancy initial recurrence rate is 1-2%. Eventually, the likelihood of a third recurrence of molar pregnancy rises to 15-20%[3].

Hydatidiform mole is abnormal pregnancy caused by chromosomal abnormalities that affect the growth of fetal. The father chromosomes are duplicated, because chromosomes of mother are missing (empty egg) leading to a complete mole, or fertilization of an egg by two or three sperm,

likely to result in a partial hydatidiform mole[4].

In Early pregnancy between 6 and 12 weeks of gestation hydatidiform mole can be diagnosed by Doppler ultrasonography[5].

After evacuation of hydatidiform mole pregnancy, some cases developed in to gestational trophoblastic neoplasia (GTN), if left without treatment, it become cancerous and can be sever. However, GTN can cure in 100%, there are other kinds of gestational trophoblastic neoplasia including: Invasive mole, a malignant tumor of the uterus that originates in the cells of the chorionic of a fetus. called Choriocarcinoma and trophoblastic tumor from Placental site [6].

Methods

Study design and setting

A pre- experimental design has been carried out for nurses who works in gynecological units with application of pretest and posttest approach to evaluate the effectiveness of educational program on nurse's knowledge about treatment and follow-up of hydatidiform mole, the nurses were exposed to pretest, implementation of program, posttest one immediately after the application of the program, and the posttest two was done after three weeks from the first post test. The study started from January17th, 2022 to May 2th, 2023.

Samples and sampling

Non probability (purposive sample), was selected for the purpose of the study, the study sample consists of (50) nurses who work in gynecological units of AL Karama Teaching Hospital, AL Emamein Kadhimain Medical City, AL-yarmouk Teaching Hospital and Al-Elwiya maternity teaching hospital. The study sample consist of study group which exposed to pre-test, an education program, and post-test I and II.

The researcher distributed an informed consent sheet to all participating nurses in order to obtain their permission to participate in the current study. In addition, they were informed that they withdraw from the research or refuse to answer a specific question. Submit an informed consent form.

Data collection and study instrument

The Program and Instrument construction was made according to the findings of nurses' assessment needs (preliminary assessment) of their knowledge about treatment and follow-up about hydatidiform mole related literatures to construct the education program.

The instrument used at the pretest and posttest which consist of two parts

Part I: covered the nurses' socio-demographic Characteristics of age, marital status, educational level, experience years, source of information, work place, previous mole treatment, and participation in courses about hydatidiform mole

Part II: a scale for Nurses' Knowledge about follow up Hydatidiform Mole Pregnancy, it was consisted of (7) items, and (6) items about the treatment. Formal administrative approval completed before the program was carried out. a semantic scale was used and scored for the purpose of scoring the instrument's items, as follows: (1) for the correct answer and (0) for the incorrect answer.

Validity and Reliability of the study Instrument

The validity of the instrument was established through a penal of (12) experts. They were (five) faculty numbers from College of Nursing/ University of Baghdad; (three) faculty number from college of Medicine/ Iraqi University; (two) faculty number from institute of nursing; (three) faculty number from Baghdad college of medical science /private college; The experts were noted to review the questionnaire format for content relevancy and adequacy. They have acknowledged that educational program is well designed to increase nurses knowledge about treatment and follow up hydatidiform

mole. Some questions and items were modified according to experts comments and suggestions and their opinion were possessed in consideration for writing final form of questionnaire and program.

pilot study

The pilot study was implemented before initiate the data collection for ten nurses who work at Baghdad teaching hospital/ gynecology department from the period of April 12th, 2022 to May 12th, 2022). Ten nurses were selected purposively to be enrolled in the pilot study. These sample is excluded from study sample. Firstly, pre-test was made to them through filling out the questionnaire. Then, they were exposed to education program by taking four lectures in medical city directorate, after four weeks, they were evaluated again as post-test. Time is required to fill the questionnaire about (15) minute. Before starting the implementation of educational program the researcher explained the program to the nurses to understand the objectives of educational program. Before implementation of educational program the nurses were exposed for pre- test.

The educational program

The educational program then implemented on the nurse who work in gynecological units and each nurse was supplied by booklets of the education program. The nurse expose to pretest (1) immediately after implementation of program. Then after 3 weeks nurses were exposed for post- test2. The tools that used in the sessions of program are (data show presentation, white board, discussion, ask questions, pictures and present some cases.

Data collection was performed through the use of the study instrument and the application of the constructed educational program. The participants were interviewed, and educational program was used, which was prepared beforehand. The Interview technique and pre - posttests approach was utilized as appropriate mean of data collection.

Ethical consideration

Prior to the initiation of actual data collection formal administrative approval has been obtained to conduct the study from College of Nursing agreement in the first seminar on research topic, Ministry of Planning/Center of Statistical Organization (CSO**),** Ethical committee agreement from college of nursing**,** Permission from Ministry of Health (MOH): Al-Karkh Health Directorate**,** Medical City Health Directorate and Al- Rusafa Health Directorate. The study participants' agreement was obtained from all nurses and informed consent was taken orally form nurses before participate in the study.

Data analysis

Evaluate The overall level of nurses' knowledge was done by calculating the range score for a mean of the total score after calculating the range from the minimum score and maximum score; the range score was rated into three levels and scored as follows: low = 0 - 19.66, moderate = 19.67 – 39.33, high =39.34 – 59. The level of knowledge for each item in the scale was estimated by calculating the cutoff point for the mean of the score and rated into three levels also as follows: low = 0 – 0.33, moderate = 0.34 – 0.67, high = 0.68 – 1. Data analysis was done by using Descriptive and Inferential Statistical analysis.

Results

Table 1. Distribution of Nurses according to their Socio-demographic Characteristics

No.	Characteristics		F	%
1	**Age M±SD= 26±5**	Less than 20 years	1	2
		20 – less than 26 years	28	56
		26 – less than 31 years	15	30
		31 – less than 36 years	4	8
		36 – less than 41 years	0	0
		41 year and more	2	4
2	**Marital status**	Married	29	58
		Unmarried	21	42
3	**Nursing qualification**	Secondary school	30	60
		Diploma	14	28
		Bachelor	6	12

No= Number, **f**= Frequency, **%**= Percentage, **M**= Mean, **SD**= Standard deviation.

Table (1) shows that 56% of nurses with age group of 20-less than 26 years with average age of 26±5 years. 58% of them were married. 60% of them were nursing secondary school graduates, 28% are with diploma degree.

Table 2. Distribution of Nurses according to their Professional Characteristics

No.	Characteristics		F	%
1	**Years of experience M±SD= 4±4**	1 – less than 6 years	36	72
		6 – less than 11 years	10	20
		11 year and more	4	8
2	**Sources of information about Hydatidiform mole**	None	3	6
		Workplace	37	74
		Experience	2	4
		Internet	5	10
		Others	3	6
3	**Has a patient with a molar pregnancy been treated?**	No	31	62
		Yes	19	38
4	**participated in a course on molar pregnancy**	No	40	80
		Yes	10	20

No= Number, **f**= Frequency, **%**= Percentage, **M**= Mean, **SD**= Standard deviation.

Table (2) shows that nurses are with average 4±4 years of experience in which 72% of them are associated with 1-less than 6 years of experience. Regarding sources of information about hydatidiform mole pregnancy, 74% of nurses reported that they got their information from workplace and 10% got their information from internet. Only 38% of nurses are reported that they have previous experience of treatment patient with hydatidiform mole pregnancy. Regarding participation in training courses, only 20% of nurses are reported that they participated in training course about hydatidiform mole pregnancy while remaining are not.

Table 3. Nurses' Knowledge about Treatment of Hydatidiform Mole Pregnancy: Pre-test, Post-test 1 and Post-test 2 Periods

List	V- Knowledge about Treatment	Scale	Pre-test (N=50)			Post-test1 (N=50)			Post-test2 (N=50)		
			f (%)	Mean of score	Evaluation	f (%)	Mean of score	Evaluation.	f (%)	Mean of score	Evaluation.
1	A hydatidiform molar is usually completely removed by dilation and curettage by suction	**Incorrect**	30(60)	.22	low	1(2)	.98	high	4(8)	.92	**high**
		Correct	20(40)			49(98)			46(92)		
2	To find out if the hydatidiform molars have been completely removed, measure level of HCG (human chorionic gonadotropin)	**Incorrect**	33(66)	.34	moderate	2(4)	.96	high	4(8)	.92	**high**
		Correct	17(34)			48(96)			46(92)		
3	If the pregnancy hormone continues to rise after the hydatidiform molar removal, it is necessary to seek to Chemotherapy	**Incorrect**	32(64)	.36	Moderate	0(0)	1.00	high	4(8)	.92	**High**
		Correct	18(36)			50(100)			46(92)		
4	Women who have had a hydatidiform molar removal are advised not to become pregnant for a while ranging from six months to a year	**Incorrect**	40(80)	.20	low	2(4)	.96	high	4(8)	.92	**high**
		Correct	10(20)			48(96)			46(92)		
5	The pregnancy hormone level returns to normal within Ten weeks	**Incorrect**	30(60)	.22	low	0(0)	1.00	high	5(10)	.90	**high**
		Correct	20(40)			50(100)			45(90)		
6	If hydatidiform molars have not spread, the cure rate is 100%	***Incorrect***	30(60)	.40	moderate	1(2)	.98	high	4(8)	.92	***high***
		Correct	20(40)			49(98)			46(92)		
Total				***.29***	***low***		***.98***	***high***		***.91***	***high***

F=Frequency, **%**= Percentage, **M**= Mean, Asses: Assessment (low= 0 – 0.33, moderate = 0.34 – 0.67, high= 0.68 – 1)

The table presents the level of nurses' knowledge related to domain of "treatment of hydatidiform mole pregnancy"; the findings of this domain reveals that nurses show low level of knowledge during pre-test (Mean score= ..29) Which they show moderate levels among items 2, 3,

and 6 while show low level among items 1, 4, and 5. During the post-test 1 and 2, the nurses show high level of knowledge (Mean score= .98 and .91) in which the mean scores show high level among all items in this domain.

Table 4. Nurses' Knowledge about follow up of Hydatidiform Mole Pregnancy at the Pre-test, Post-test 1 and Post-test 2 Periods

List	VIII-Knowledge about follow-up	Scale	Pre-test (N=50)			Post-test1 (N=50)			Post-test2 (N=50)		
			f (%)	Mean of score	evaluation	f (%)	Mean of score	evaluation.	f (%)	Mean of score	evaluation.
1	Ultrasound examination should be performed after two weeks to ensure absence of residual hydatidiform molars inside the uterus	***Incorrect***	27(54)	.46	moderate	1(2)	.98	Good	4(8)	.92	high
		Correct	23(46)			49(98)			46(92)		
2	It is recommended to use a reliable type of family planning method during the follow-up period	***Incorrect***	30(60)	.40	moderate	1(2)	.98	Good	4(8)	.92	high
		Correct	20(40)			49(98)			46(92)		
3	Women should be informed that hydatidiform molars are more likely to develop into cancerous cells 4%	***Incorrect***	40(80)	.20	low	1(2)	.98	high	4(8)	.92	high
		Correct	10(20)			49(98)			46(92)		
4	Women with hydatidiform molars need chemotherapy if HCG more than 20,000 after cleanings.	***Incorrect***	40(80)	.20	low	1(2)	.98	high	4(8)	.92	high
		Correct	10(20)			49(98)			46(92)		
5	A test for pregnancy hormone should be done once a week until it reaches zero, sometimes it rises after its low, because of presence of remnants of	***Incorrect***	37(74)	.32	low	1(2)	.98	high	8(16)	.84	high
		Correct	13(26)			49(98)			42(84)		

	hydatidiform molars inside the uterus										
6	The hormone test is continued for a period ranging between 6 months to a year	***Incorrect***	37(74)	.26	low	1(2)	.98	high	4(8)	.92	high
		Correct	13(26)			49(98)			46(92)		
7	Women with hydatidiform molars during the follow-up period are recommended to use the contraceptive pills	***Incorrect***	31(62)	.38	moderate	1(2)	.98	high	9(18)	.82	high
		Correct	19(38)			49(98)			41(82)		
Total				***.32***	***low***		***.98***	high		***.89***	high

F=Frequency, **%**= Percentage, **M**= Mean, Asses: Assessment (low= 0 – 0.33, moderate= 0.34 – 0.67, high= 0.68 – 1)

Table (4) presents the level of nurses' knowledge related to domain of "follow-up of hydatidiform mole pregnancy"; the findings of this domain reveals that nurses show low level of knowledge during pre-test (Mean score= .32) in which they show moderate levels among items 1, 2, and 7 and low level among items 3, 4, 5, and 6. During the post-test 1 and 2, the nurses show high level of knowledge (Mean score= .98 and .89) in which the mean scores show high level among all items of the scale in this domain.

Table 5. Repeated Measure Analysis of Variance (RM-ANOVA) Test for Determination the Effectiveness of Educational Program on Nurses' Knowledge about Hydatidiform Mole Pregnancy (N=50)

Descriptive		**Within-Subjects Effect**								
Knowledge	**Mean (S.D)**	**Source**		**Type III Sum of Squares**	**Df**	**Mean Square**	**F**	**P-value**	**Sig.**	**Partial Eta Squared**
Pre-test	22.06 (11.499) 58.08 (13.822) 54.28 (13.357)	**Time**	Sphericity Assumed	39166.813	2	19583.407	156.422	.000	H.S	.761
Post-test 1			Greenhouse-Geisser	39166.813	1.287	30429.126	156.422	.000	H.S	.761
Post-test 2			Huynh-Feldt	39166.813	1.307	29968.522	156.422	.000	H.S	.761
			Lower-bound	39166.813	1.000	39166.813	156.422	.000	H.S	.761
		Error (Time)	Sphericity Assumed	12269.187	98	125.196				
			Greenhouse-Geisser	12269.187	63.070	194.532				
			Huynh-Feldt	12269.187	64.040	191.587				
			Lower-bound	12269.187	49.000	250.392				

SD= Standard Deviation, **df**= Degree of Freedom, **f**= F-statistics, **P-value**= probability value, **Sig**- Significance, **HS**= High Significant.

The analysis of RM-ANOVA test in this table indicates that educational program was highly effective on nurses' knowledge about hydatidiform mole pregnancy evidenced by high significant difference associated with "Greenhouse-Geisser" correction at p-value=0.000. It is clear out of

descriptive analysis the noticeable increasing of mean scores on nurses' knowledge during post-test 1 and 2 that reveal the effectiveness of educational l program.

Discussion

The present study revealed that 56% of nurses are in the age group of 20-less than 26 years with an average age of 26±5 years and 30% are in the age group of 26-less than 31 years, 58% of them are married, while the remaining (42%) were unmarried. 60% of nurses with nursing secondary school graduates, 28% are with a diploma degree, and only 12% are with bachelor's degree.

Regarding experience, nurses are with an average of 4±4 years of experience of which 72% of them are associated with 1-less than 6 years of experience, 74% of nurses reported that they got their information from the workplace and 10% got their information from the internet. Only 38% of nurses reported that they have previous experience treating patients with hydatidiform mole pregnancy, only 20% of nurses reported that they participated in a training course about hydatidiform mole pregnancy, while the remaining were not.

Which study show that (42.3%) of nurses within age 20-29 years which considered the highest percentage. 59.6 % of nurses were married. 62.5% of theme which more than half were graduated from Secondary School. 43.3% of them the duration of work 1-5 years. The higher percentage (53.8%) of nurses not attending lecture about hydatidiform Mole. Regarding Work years with molar pregnant the higher percentage (68.3%) working for 1 years[7].

In Iraq study of Assessment of Nurses' Knowledge Toward Hydatidiform Mole at Maternity Hospitals in Baghdad City, revealed that the age of nurses within 24-30 years were 64.3% of them. Junior nursing graduates represent 64,3 the years of experience represent 28.5% in 1-3 years were married nurses represent 54.3%, and (58.5%) did not participate in the [8].

In Iraq, study Effectiveness of an Educational Program on Nurses- midwives' Knowledge about Pain Management during Labor in Baghdad Maternity Hospitals, this study conducted in the same setting, and uses the same design, sample, and analysis of data, were carried out in the Baghdad maternity hospitals. An educational program was implemented on nurses knowledge. The study was carried out in three directories same my study: Al karkh/Health Directorate at the Al-Karkh Maternity Hospital and AL-Yarmouk Teaching Hospital - Maternity Department, AL-Rusafa/Health directorate at the Al-Elwia Maternity Teaching Hospital, the medical city health directorate at the Baghdad Teaching Hospital. Descriptive and inferential statistical data analysis approach. Results: The study represent that (77.3%) of nurses are with age group of 20 and 24 [9].

The Current study presents the level of nurses' knowledge related to "treatment of Hydatidiform mole pregnancy"; the findings reveals that nurses show low level of knowledge during pre-test (Mean score= ..29) Which they show moderate levels among items 2, 3, and item 6, while show low level among item 1 (A hydatidiform molar is usually completely removed by dilation and curettage by suction) , item 4 (Women who have had a hydatidiform molar removal are advised not to become pregnant for a while ranging from six months to a year) and item 5 (The pregnancy hormone level returns to normal within Ten weeks) . During the post-test 1 and 2, the nurses show high level of knowledge (Mean score= .98 and .91) in which the mean scores show high level among all items.

For high-risk hydatidiform mole patients, hysterectomy and follow-up chemotherapy may be beneficial in reducing post-molar gestational trophoblastic disease [10].

Poor level of knowledge about management of hydatiform mole in turn adversely effects on patient condition especially those women with high risk for invasive mole. So knowledge and awareness about how to manage the hydatidiform mole by suction curettage, how to prevent pregnancy during this period and prophylactic chemotherapy was discussed in the program and all nurses well understand the management of this condition, and also the knowledge can be coordinated by training courses.

The current study results presents the level of nurses' knowledge related to "follow-up of hydatidiform mole pregnancy"; show poor level of knowledge during pre-test (Mean score= .32) in which they show fair levels among items 1, 2, and 7 and poor level among items 3(Women should be informed that hydatidiform molars are more likely to develop into cancerous cells 4%) , 4(Women with hydatidiform molars need chemotherapy if HCG more than 20,000 after cleanings) 5(A test for pregnancy hormone should be done once a week until it reaches zero, sometimes it rises after its low, because of presence of remnants of hydatidiform molars inside the uterus) , and 6 (The hormone test is continued for a period ranging between 6 months to a year). During the post-test 1 and 2, the nurses show good level of knowledge (Mean score= .98 and .89) in which the mean scores show good level of knowledge.

General information of nurses about hydatidiform mole follow up is a limited, therefore, the nurses need to be educated about follow up and the education program should be used as a tool to help the nurses to understand and/or what mean by follow up hydatidiform mole.

Nurses should have a knowledge about follow-up Hydatidiform mole that include regular physical examinations, HCG level, use reliable birth control to avoid pregnancy. Talk with patient about how long should use birth control during follow-up care for GTD and what plans needed to become pregnant in the future.

The results revealed that educational program about hederiform mole was highly effective on nurses' knowledge by high significant difference associated with "Greenhouse-Geisser" correction at p-value=0.000. It is clear out of descriptive analysis the noticeable increasing of mean scores on nurses' knowledge during post-test 1 and 2 that reveal the effectiveness of educational program.

Most of the nurses in maternity units had a low level of knowledge about Hydatidiform mole. There were differences between the knowledge in the pretest and post-test. Most of the nurses working in the maternity unite s had a low level of knowledge to a moderate level before giving them the educational program about molar pregnancy, but the results show an increase in knowledge at a high level after exposure to the program, which proves the effectiveness of the program in increasing knowledge. The effectiveness of the program shows the high difference in the nurses' knowledge during the pre-test and post-test, From the researcher's point of view, this improvement might be due to provide with an Arabic educational handbook, motivation about continuous reading and also, it is the first time for the nurses of maternity units to participate in educational lectures about hydatidiform mole.

From the researcher's point of view nurses show a fair level of knowledge during

the pre-test, and the average age of nurses is 26±5 years in 56% of them are in the age group of 20-less than 26 years and show a good level of knowledge after the implementation of the program at the same mean age, this means the level of knowledge not related to age but related to engaging in the education program. A negative correlation may be due to nurses' young age, because the majority of nurses with an average age of 26±5 years, older nurses have much more information in their field than younger nurses.

In Iraq, Effectiveness of Educational Program on Nurse's Knowledge and Practices Regarding Management of Pregnancy with Danger Signs This study was carried out in the same setting, design, sample, and data analysis. A quasi-experimental design using a pre-post-test was done throughout the study to assess nurses' knowledge using pre-and post-tests. The study was conducted at Al-Karckh Maternity and Al-Yarmouk Teaching Hospital in Baghdad. Baghdad [(11)]

Conclusion

The level of nurses' knowledge about treatment and "follow up of hydatidiform mole pregnancy was poor during the pre-test (Mean score= .32). During the post-test 1 and 2, the nurses show good level of knowledge (Mean score= .98 and .89) in which the mean scores show good level after implementation of the program and confirmed its effectiveness.

Recommendation

1. It is important to design a booklet, pamphlet, and flex about follow up care about molar pregnancy for nurses to improve the nursing role in patient care. Establishment of short workshops involve lecture about hydatidiform mole.
2. Encouraging the Ministry of Higher Education to improve and develop educational curricula Further studies can be conducted on wide range variable.

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