Women's Knowledge about Late Motherhood and Pregnancy outcome in Kirkuk City.

معارف النساء حول تقدم سن الإنجاب وناتج الحمل في مدينة كركوك

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الخلاصة
الأهداف : تقييم معارف النساء حول تقدم سن الإنجاب ونتائج الحمل.
المنهجية : دراسة وصفية . شملت عينة غرضية (غير الاحتمالية) مؤلفة من (58) امرأة حامل أعمارهن 35 سنة فما فوق ، في مستشفى أزادي التعليمي و مستشفى كركوك العام للفترة من 1\7\2013 الى 10\4\2014. تم إعداد استمارة استبيان . مؤلفة من ثلاث محاور تشمل الخصائص الديموغرافية والخصائص الإنجابية ومعارف النساء . وقد تم تحليل البيانات من خلال تطبيق تحليل البيانات الإحصائية الوصفية (الوسط الحسابي والنسبة المئوية والتكرارات).
النتائج : أشارت النتائج إلى إن المتغيرات التالية كانت ذات دلالة إحصائية واضحة في حدوث المضاعفات الخطرة عند تأخر الأمومة (العمر ، تأخر سن الزواج ، المستوى التعليمي ، التدخين وصلة القرابة) كالتالي (67.3%، 33%، 27.1%، 27.5% و63.7%) . وكانت معلومات النساء الحوامل حول تقدم سن الإنجاب مقبولة .
الاستنتاجات : تأخر زواج الإناث كان عامل مؤثر كأحد أسباب الخطورة و الوفيات للنساء في الأمومة المتأخرة . أن أكثر من نصف العينة كانت معارفهم جيدة حول مخاطر تقدم سن الإنجاب
التوصيات: أوصى الباحثون بمواصلة التثقيف والدورات التدريبية للفريق الصحي خاصة، لتحسين معرفتهم وليأخذوا دورهم في تعليم وإعطاء النصائح والتوصيات للمرأة الحامل خلال هذه الفترة من العمر وكذلك تشجيع الإناث على الزواج قبل سن(35سنة) مع شرح مخاطر تأخرسن الزواج على الأم وعلى الطفل.

Abstract:
Objectives: Assess women's Knowledge about Advanced Maternal Age and Pregnancy outcome.
Methodology: A descriptive study using the assessment approach was conduct on women, who ages above 35 years old. A purposive (non probability) sample of (58) women's that was selected for study in Azady teaching hospital and Kirkuk general hospital from the period July 1st 2013 to April 10th 2014. A questionnaire was developed for the purpose of study
Result: The study findings demonstrate that the following variable was contributing significantly in the occurrence of complications during late motherhood among the study sample which include (age, late marred, level of education, smoking, and consanguinity). In sequence (67.3 %, 33%, 27.1%, 27.5%, 63.7%) The findings indicate that the women knowledge about risk of advanced maternal age generally is good for knowledge scale items.
Conclusions: Late marred of girls can be interrupted as a one sources of late motherhood mortality and morbidity. More than half of the study sample has high level of knowledge about risk of their age on pregnancy outcome.
Recommendation: Continuous education & training courses for health team especially to improve their knowledge and to take their roles in teaching and giving advice & instructions to pregnant women during certain age. And encourage the females about early marriage, and explain the risks of late marriage on both the baby and the woman.
Keywords: knowledge, Advanced maternal age, women, pregnancy outcome

INTRODUCTION

Advancing maternal age especially aged 35 years or older has been accepted to have more risks from both the maternal and fetal perspectives. A growing number of women have delayed pregnancy. This has become a common phenomenon in the developed world as a result of social, educational and economic factors such as career goals and late marriage [(1).] The number of babies born to women in their late 30s has progressively increased over the past decade [(2).] The published data on the risks associated with childbirth at >35 years are inconsistent. It is known that older women are more likely to have pre-existing medical disorders and pregnant woman should be understandings of risks associated with AMA were reflected most often in comments about their awareness of increased risk of infertility issue

and genetic abnormalities, pregnancy complication such as twins, high blood pressure, gestational diabetes mellitus, difficulty labors, abortion, placenta previa ,placenta accrete, preterm delivery, antipartum hemorrhage (APH), postpartum hemorrhage (PPH),anemia, caesarean section, uterine infection (Endometritis), uterine fibroses, ectopic pregnancy, abnormal fetal positions in the uterus [(3).] Advanced maternal age is also postulated as an independent risk factor for low birth weight, preterm delivery, and infants being admitted to the special care baby unit stillbirth, neonatal deaths and few post neonatal deaths related to pregnancy and labor [(4)] and [(5).]

Objective:

1- To assess pregnant women's knowledge about advance maternal age and their effect on pregnant woman, fetus and neonate health.
2- To identify the relationship between women's knowledge and their demographic characteristic: age, education level, parity, number of cesarean section and number of abortion.

METHODOLOGY:

A descriptive, analytic study was carried out through the present study through the period from July 1st 2013 to April 10th 2014. The study was conducted in two hospitals at Kirkuk city which include: General Kirkuk hospital and Azady teaching hospital. A non probability, purposive sample of 58 pregnant women whom age at 35 years, was selected from obstetrical and gynecological wards of the two hospitals. The purpose of this study was to assessment of pregnant women's knowledge about late motherhood in Kirkuk city hospitals. Through the review of related literatures and previous studies, the investigator constructed the questionnaire format, which comprised of three main parts, **part one:** Demographic Characteristics, it is concerned with the identification of the demographic characteristics of the study group, which include the following variables (age, level of education, occupation, smoking, residency, and socioeconomic status). **Part two:** Reproductive Characteristics: it is concerned with the identification of the different variable of the study group, which include the following variables: Age at menarche, Age at marriage, consanguinity, regularity of menstrual cycle, inter-pregnancy interval, gestational age, gravidity, parity, abortion, still birth, neonatal death & its causes, mode & number of previous deliveries, place of previous deliveries, mode of current delivery, history of multiple pregnancy, previous uterine surgery, attendance for prenatal care, & number of prenatal care visits at current pregnancy. **Part three**: pregnant women's knowledge. This part consists items concerning with the knowledge of pregnant women about late motherhood. It includes three domains and they are responded by know, (correct answer, scored 2), or don't know (incorrect answer, scored 1) and these domains are: Domain 1: General information concerning advanced maternal age. Domain 2: effect of advanced maternal age on pregnant women health**.** Domain 3: effect of advanced maternal age on fetal and neonatal health and they are responded by know (correct answer, scored 2), or don't know (wrong answer, scored 1). Data was selected through utilization of the study instrument (questionnaire format) for the period. 30-45 minutes were consumed to fill the questionnaire. Data were analyzed through the application of descriptive and inferential statistical approaches, and all the statistical procedures were tested at $P \leq 0.05$.

RESULTS:

Table (1) Comparison Significant of items Responding for the Pregnant Women Knowledge about Advance Maternal Age and Assessment according to Cutoff point of the Studied Questionnaires items

Questionnaire items		Resp.	F.	%	M.S	S.D	C.S
Information							
1-	***General information about advance maternal age***						
1	**Advance maternal age is at 35 yrs or more**	**Yes**	**32**	**55.1**	**1.55**	**0.50**	**H.S**
		No	**26**	**44.9**			
2	**The perfect age for childbirth is at (19-34) yrs.**	**Yes**	**33**	**56.8**	**1.56**	**0.49**	**H.S**
		No	**25**	**43.2**			
3	**Maternal mortality and morbidity rate increase with advance age**	**Yes**	**44**	**75.9**	**1.75**	**0.43**	**H.S**
		No	**14**	**24.1**			
4	**Fetus mortality and morbidity increased with advance maternal age**	**Yes**	**28**	**48.3**	**1.48**	**0.48**	**S**
		No	**30**	**51.7**			
5	**Maternal death rate during pregnancy increased at advanced age**	**Yes**	**28**	**48.3**	**1.48**	**0.48**	**S**
		No	**30**	**51.7**			

This table shows the observed frequencies, mean of score standard deviation of the studied questionnaires items concerning with the "pregnant women's knowledge" about (AMA) with their comparing significant. The result has indicated that there has been a highly significant differences at $p \leq 0.05$ between the two categories responding (know, don't know) of the study score and reported that all of the studies responding (concerning general information) fall at the upper bound of the cutoff point that indicate too highly successful with the "general women's knowledge" about (AMA).

Table (2) Frequencies, Percent, Mean of score and Standard Deviation for Effect of AMA on Pregnant Women Health with their Significant Differences

#	Questionnaire items	Resp.	Freq.	Perce.	M.S.	S.D.	C.S.
Information							
1.	***Information about effect of (AMA) on pregnant woman health.***						
1	**Abortion**	**Yes**	**36**	**62.1**	**1.62**	**0.49**	**HS**
		No	**22**	**37.9**			
2	**Preeclampsia**	**Yes**	**27**	**46.3**	**1.46**	**0.50**	**S**
		No	**31**	**53.7**			
3	**Gestational diabetes**	**Yes**	**19**	**32.7**	**1.15**	**0.50**	**LS**
		No	**39**	**67.3**			
4	**Gestational hypertension**	**Yes**	**36**	**62.1**	**1.62**	**0.48**	**HS**
		No	**22**	**37.9**			
5	**Placenta previa**	**Yes**	**26**	**44.8**	**1.44**	**0.50**	**S**
		No	**32**	**55.2**			
6	**Placenta accreta**	**Yes**	**3**	**5.2**	**1.04**	**0.38**	**LS**
		No	**55**	**94.8**			
7	**Preterm labor**	**Yes**	**23**	**56.9**	**1.39**	**0.49**	**S**
		No	**25**	**43.1**			
8	**Antipartum hemorrhage**	**Yes**	**32**	**55.2**	**1.55**	**0.50**	**HS**
		No	**26**	**44.8**			
9	**Postpartum hemorrhage**	**Yes**	**35**	**60.3**	**1.60**	**0.49**	**HS**
		No	**23**	**39.6**			
10	**Multiple cesarean section**	**Yes**	**15**	**25.9**	**1.25**	**0.44**	**S**
		No	**43**	**74.1**			
11	**Anemia**	**Yes**	**35**	**60.3**	**1.60**	**0.49**	**HS**
		No	**23**	**39.6**			
12	**Abnormal fetus position**	**Yes**	**38**	**65.5**	**1.65**	**0.50**	**HS**
		No	**20**	**34.5**			
13	**Uterine fibroid or adhesion**	**Yes**	**5**	**8.6**	**1.05**	**0.39**	**LS**
		No	**53**	**91.4**			
14	**Endometritis**	**Yes**	**21**	**36.2**	**1.36**	**0.49**	**S**
		No	**37**	**63.8**			
15	**Atopic pregnancy**	**Yes**	**23**	**39.7**	**1.39**	**0.49**	**S**
		No	**35**	**60.3**			
16	**Multiple pregnancy**	**Yes**	**9**	**15.5**	**1.15**	**0.41**	**LS**
		No	**49**	**84.5**			

This table indicates that the mean of score was highly significant in items (Abortion, Gestational hypertension, Antipartum hemorrhage, Postpartum hemorrhage, Abnormal fetus position and Abnormal fetus position) and significant in items (Preeclampsia, Placenta previa, Preterm labor, Multiple cesarean section, Endometritis and Atopic pregnancy) and low significant in item (Gestational diabetes, Placenta accreta, Uterine fibroid or adhesion and

Multiple pregnancy) that mean all the (Q) items concerning effect of AMA on pregnant woman health fall at the upper bound of the cutoff point except items (3,6,13 and 16) .

Table (3) Frequencies, Percent, Mean of score and Standard Deviation for Effect of AMA on Fetus Health with their Significant Differences

Questionnaire items		Resp.	Freq.	%	M.S.	S.D.	C.S
Information							
3. Information about effect of (AMA) on fetus health .							
1	**Fetus congenital abnormality**	**Yes**	**35**	**60.3**	**1.60**	**0.49**	**HS**
		No	**23**	**39.7**			
2	**Stillbirth**	**Yes**	**27**	**46.6**	**1.46**	**0.50**	**S**
		No	**31**	**53.4**			
3	**Intrauterine growth retardation**	**Yes**	**24**	**41.4**	**1.41**	**0.48**	**S**
		No	**34**	**58.6**			
4	**Chromosomal abnormality**	**Yes**	**4**	**6.8**	**1.03**	**0.39**	**LS**
		No	**54**	**93.2**			

This table indicate that the mean of score was highly significant in first item, but significant in second and third items while low significant in forth item, that mean all the (Q) item concerning effect of AMA on fetus health fall at the upper bound of the cutoff point except item (Chromosomal abnormality).

Table (4): Frequencies, Percent, Mean of score and Standard Deviation for Effect of AMA on Neonatal Health with their Significant Differences.

Questionnaire items		Resp.	Freq.	Perce.	M.S.	S.D.	C.S.
Information							
4. Information about effect of (AMA) on neonatal health							
1	**Respiratory distress syndrome**	**Yes**	**35**	**60.3**	**1.60**	**0.49**	**HS**
		No	**23**	**39.7**			
2	**Need neonatal intensive care unit**	**Yes**	**5**	**8.6**	**1.05**	**0.40**	**LS**
		No	**53**	**91.4**			
3	**Low birth weight ≤ 2.5 kg**	**Yes**	**25**	**43.1**	**1.43**	**1.49**	**S**
		No	**33**	**56.9**			
4	**Macrosomia ≥ 4 kg**	**Yes**	**29**	**50**	**1.5**	**0.50**	**S**
		No	**29**	**50**			
5	**Premature delivery**	**Yes**	**43**	**74.1**	**1.74**	**0.54**	**HS**
		No	**15**	**25.9**			

This table indicate that the mean of score was highly significant in first and fifth items, but significant in third and four items, while low significant in second item , that mean all the (Q) item concerning effect of AMA on neonatal health fall at the upper bound of the cutoff point except item (Need neonatal intensive care unit) .

Table (5): Frequencies, Percent, Mean of score and Standard Deviation for Pregnant Women knowledge about Self-care during Pregnancy at Advanced age with their Significant Differences.

Questionnaire items		Resp.	Freq.	%	M.S.	S.D.	C.S.
Information							
4. Women's knowledge about self care during pregnancy at advanced age							
1	**Adequate and daily bed rest**	**Yes**	**39**	**67.2**	**1.67**	**0.53**	**HS**
		No	**19**	**32.8**			
2	**a complete healthy diet intake like fruits and vegetables.**	**Yes**	**41**	**70.6**	**1.70**	**0.59**	**HS**
		No	**17**	**29.4**			
3	**Fetus movement monitoring after 4th months of GA**	**Yes**	**35**	**60.3**	**1.60**	**0.54**	**HS**
		No	**23**	**39.7**			
4	**Antenatal care visit continuously**	**Yes**	**30**	**51.7**	**1.51**	**0.49**	**S**
		No	**28**	**48.3**			

This table indicates that the mean of score was highly significant differences in items (Adequate and daily bed rest, a complete healthy diet intake like fruits and vegetables and Fetus movement monitoring after 4th months of GA), and significantly items (Antenatal care visit continuously), that mean all the (Q) items concerning self-care during pregnancy after age 35 yrs fall at the upper bound of the cutoff point that indicate too highly successful with "pregnant women's knowledge about self-care" .

Table (6) Summary Statistical "two extremes values" Mean , Standard Deviation and Assessment of the studied questionnaires main domains

items	Questionnaires main domains	No.	G.M.S	Stan. Dev.	assessment
	General information about (AMA).	**58**	**1.42**	**0.42**	**Good**
	Effect of (AMA) on pregnant women health .	**58**	**1.51**	**0.46**	**Good**
	Effect of (AMA) on fetus health .	**58**	**1.54**	**0.49**	**Good**
	Effect of (AMA) on neonatal health .	**58**	**1.52**	**0.50**	**Good**
	Self-care during pregnancy after age 35 yrs .	**58**	**1.33**	**0.47**	**Pass**

This table showed the summary statistics of the grand means of score values, distributed for all of the studied questionnaires main domains. there are a positive responding were obtained as general in all questionnaire main domain (general information about advance maternal age , effect of AMA on pregnant woman health, effect of AMA on fetus health , effect of AMA on neonatal health and self-care during pregnancy after age of 35 yrs.

DISCUSSIONS:

Pregnant Women's Knowledge about Advanced Maternal age

Comparison significant of items responding for the pregnant women's knowledge about AMA and assessment according to cut off point of the studied questionnaire items.The findings of this table indicate that there are highly-significant differences at $p<0.01$ between the two categories responding (I know, I don't know) of the studied score which are pointed mostly within overall comparison in all domains:-

General information concerning AMA:-

There are a highly significant differences in the items (Advance maternal age is at 35 yrs or more, The perfect age for childbirth is at (19-34) yrs, Maternal mortality and morbidity rate increase with advance age and significant differences in the items (Fetus mortality and morbidity increased with advance maternal age and Maternal death rate during pregnancy increased at advanced age) This result agreement with the [6] on 300 pregnant women to assess their knowledge about pregnancy out come at advanced age the result indicated that (73%) of these women were will knowledge and information about risk of AMA.

The pregnant women knowledge about effects of AMA on her health :-

There are a highly significant in the items (Abortion, Gestational hypertension, Antipartum hemorrhage, Postpartum hemorrhage, Anemia and Abnormal fetus position) and significant differences in the items (Preeclampsia, Placenta previa, Preterm labor, Multiple cesarean section, Endometritis and Atopic pregnancy) and low significant differences in the items (Gestational diabetes, Placenta accreta, Uterine fibroid or adhesion and Multiple pregnancy) The finding of my study agree with study conducted by [7] on 200 pregnant women to determine their knowledge about maternal-fetal out comes after age 35 yrs. that shows the pregnant women after age 35 yrs are well knowledge and information about the risk of AMA [8].

Information about effects of AMA on fetus health:-

There are a highly significant differences in the item (Fetus congenital abnormality) and significant differences in the items (stillbirth and intrauterine growth retardation) and low significant differences in the item (Chromosomal abnormality) this result reflected low level of knowledge at this particular items and these group of study sample should be targeted for education

The pregnant women knowledge about effects of AMA on neonatal health:-

About this domain the majority of the study sample had high level of knowledge about the effects of AMA on the neonatal health which are a highly-significant differences at the items (Respiratory distress syndrome, premature delivery) and significant differences in the items (Low birth weight $\leq$ 2.5 kg and Macrosomia $\geq$ 4 kg) and low significant only in the item (Need neonatal intensive care unit), that reflected good level of knowledge at this particular item, and these agreement with a study done in Tehran to evaluate the women information about pregnancy complication after age 34 yrs.[9].

The women knowledge about self care during pregnancy after age 35 yrs:-

Concerning knowledge about self care during pregnancy after age 35 yrs almost women scored a highly significant differences in the item (Adequate and daily bed rest, a complete healthy diet intake like fruits and vegetables and Fetus movement monitoring after 4th months of GA) and significant differences in the items (Antenatal care visit continuously), this result agree with study done by (Abedzadeh ,2011) on 200 pregnant women with AMA was founded (77%) of women had good level of knowledge about self care during pregnancy at advanced age. [10]

CONCLUSIONS:

1- The vast majority of the study sample were reported within moderate category of Socio-Economic Status, which might be interpreted the effectiveness of the malnutrition as a one source of pregnancy complication

2- The vast majority of the study sample were reported within first consanguinity degree, which might be interpreted the effectiveness of the genetic reason.

3- Most of the studied pregnant women were characterized of negative smokers, since of forty percent of their husband smoking cigarette with long period of time, which might be interpreted the incidence numbers of diseased women.

4- Irregular of menstrual cycle and the short Interval between last pregnancy and this pregnancy were reported large numbers of diseased sample, which might be interpreted the incidence of mortality and morbidity of both fetus and mother.

5- Late marred of girls can be interrupted as a one sources of late motherhood

6- More than half of the study sample has good level of knowledge about risk of their age on pregnancy outcome.

RECOMMENDATION:

1. Continuous education & training courses for health team especially to improved their knowledge and to take their roles in teaching and giving advice & instructions to pregnant women during certain age
2. Increased pregnant women awareness through the mass media about pregnancy complications especially during pregnancy after age 35 yrs.
3. More maternal education and emphasis to attend the primary health care center (PHCC) for antenatal care to early diagnosis & treatment of any complications during pregnancy at advanced age.
4. Education the couple to complete the family number especially with high risk through advanced age.
5. Encourage the females about early marriage, and explain the risks of late marriage on both the baby and the woman.

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