



مضاعفات ساعات العمل الطويلة على نتائج معارف النساء الحوامل حول الحمل.

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الخلاصة

الأهداف : تقييم معارف النساء الحوامل حول مضاعفات ساعات الدوام الطويلة على نتائج الحمل. المنهجية : دراسة وصفية . لعينة عرضية (غير الاحتمالية) مؤلفة من (80) امرأة حامل تتراوح أعمارهن بين 25-40 سنة, ممن يعملن في شركة نفط الشمال للفترة من ٢٠١٤\٥\١١ الى ٢٠١٥\٤\١٦. تم إعداد استمارة استبيان مؤلفة من ثلاث محاور تشمل الخصائص الديموغرافية والخصائص الإنجابية ومعارف النساء حول ساعات العمل الطويل . وقد تم تحليل البيانات من خلال تطبيق تحليل البيانات الإحصائية الوصفية (الوسط الحسابي والنسبة المئوية والتكرارات).

النتائج : أشارت النتائج إلى إن المتغيرات (العمر , المستوى التعليمي , التدخين وطبيعة العمل) بالتعاقب (٦٧,٣% , ٣٣% , ٢٧,٥% و ٦٣,٧%) . كانت ذات دلالة إحصائية واضحة في حدوث المضاعفات الخطرة على نتائج الحمل (صحة الام والجنين) الاستنتاجات : ساعات العمل الطويلة كانت عامل مؤثر كأحد أسباب الخطورة و الوفيات للنساء العاملات لأكثر من ٤٠ ساعة اسبوعيا. أن أكثر من نصف العينة كانت معارفهم جيدة حول مخاطر العمل الطويل على نتائج الحمل

التوصيات: أوصى الباحثون بمواصلة التنقيف والدورات التدريبية للفريق الصحي بصورة خاصة, لتحسين معرفتهم وليأخذو دورهم في تعليم وأعطاء النصائح والتوصيات للمرأة الحامل العاملة. وكذلك تشجيع الحوامل على اخذ استراحة تامة من العمل والدوام لمدة شهر على الاقل قبل موعد الولادة الكلمات الدالة: معارف, نساء, العمل المطول, نتائج الحمل, مضاعفات





Women's Knowledge about long hours working complication on pregnancy outcome.

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Abstract:

Objectives: Assess pregnant women's Knowledge about complication of long hours working on Pregnancy outcome.

Methodology: A descriptive study design , content A purposive (non probability) sample of (80) pregnant women's whom aged are ranged from (25-40 yrs) that was selected from *North Oil Company* ,from the period 1\5\2014 to 10\4\2015. A constructed questionnaire consist of three parts sociodemographic characteristic, reproductive characteristic and women's knowledge about long hours working data were analysis thugh application of discreptive and infreantial statistical approach.

Result: The study findings demonstrate that the following variable was contributing significantly in the occurrence of complications on pregnancy outcome (fetus and mother health) which include (age, level of education, smoking, and working stat). In respectivly (67.3 % , 33% , 27.5% , 63.7%)





Conclusions: long hours working can be interrupted as a one sources of complication among pregnant women who worked more than 40 hrs weekly. The study recomended.

Encourage the females to take adequate completely rest from long working at least one month before delivery time.

Keywords: knowledge, women, long working, risk, pregnancy outcome

1-Introduction:

The employment rate of mothers has increased worldwide in recent years [1]In 2007, about 80% of population is under poverty line [2]Consequently, women try to bear the responsibility and look for work. Percent women economically active constituted 9.5% [3] Among working women, a moderate excess risk was observed for women working more than 42 hours a week or standing more than six hours a day [4]Women with highstress jobs, defined as jobs high in demands and low in control, have been observed to deliver babies weighing 190 g less than women who had low-stress jobs or were unemployed. Such high-stress jobs have been associated with other pregnancy outcomes as well, such as preeclampsia. Thus, to adequately consider potential pregnancy effects of strenuous activity in the workplace, the psychological stress component of women's jobs needs to be considered [5]. Pronounced physical exertion during work may increase intra abdominal pressure, decrease uterine blood flow, alter hormonal balance, and affect nutritional status [6].work was significantly associated with preterm birth,and maternal hypertension. Prolonged standing,shift work and work fatigue score also were significantly associated with preterm birth., about 15.5% of all births are low birth weight (LBW). Approximately, 95% of these are in developing countries (5). PCBS reported approximately 8.3% of live birth are low birth weight [7].Infant deaths constitute 17.9% of total deaths. Infant





Mortality Rate(IMR) is still high Half of infant deaths occurred in the early neonatal period; about half of infant deaths (47.8%) result from LBW and preterm neonates .Risk factors adversely affect the pregnancy outcome is diverse and include maternal, feto-placental, and environmental risk factors.Maternal risk factors leading to LBW infants and preterm delivery are infection, malnutrition, maternal characteristics (too young, too old, low educational level) genetic/ low social standard and poverty, working conditions.

2-Methodology: A descriptive , analytic study was carried out through the present study through the period from 1st may 2014 to 16th April 2015. The study was conducted in the north oil company at Kirkuk city which include : six department , the working hours in this department last for seven hours daily, it means 42 hr weekly except the holiday. A non probability, purposive sample of **80** pregnant women was selected from this departments of the oil company. The purpose of this study was to assessment pregnant women's knowledge about risk of long hours working during pregnancy. Through the review of related literatures and previous studies, the researcher 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 , , smoking , residency , consanguinity 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 marriage, regularity of menstrual cycle, inter-pregnancy interval, gestational age, gravidity , parity, abortion , still birth, neonatal death & its causes, mode & number 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 risk of long hours working . It includes four 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 long hours working . Domain 2 :effect of long hours working on fetus health. Domain 3 : effect of long hours working on pregnant woman health and Domain 4 pregnant woman knowledge about self care during working .Data was selected through utilization of the study instrument (questionnaire format) for the period from 10th Jon 2014 to 12th august 2014. 30-45 minutes were consumed to fill the questionnaire. Data were analyzed through the application of descriptive and inferential statistical approaches,

3-Results:

Table (1) Comparison Significant of items Responding for the Pregnant Women Knowledge about long hours working during pregnancy and Assessment according to Cutoff point of the Studied Questionnaires items .

| Questionnaire items | Resp. | F. | % | M.S | S.D | assessment | |
|--|---|-----|------|------|-------------|-------------|-------------|
| Information | | | | | | | |
| <i>Pregnant women's knowledge about LHW during pregnancy</i> | | | | | | | |
| 1 | Long hours working during pregnancy can increased mortality and morbidity of mother | Yes | 42 | 52.5 | 1.65 | 0.50 | high |
| | No | 38 | 47.5 | | | | |





| | | | | | | | |
|---|--|-----|----|------|------|------|------|
| 2 | Fetus mortality and morbidity increased in working mother | Yes | 53 | 66.2 | 1.56 | 0.49 | high |
| | | No | 27 | 33.8 | | | |
| 3 | Long hours working its mean more than 40 hr weekly. | Yes | 28 | 35 | 1.41 | 0.40 | low |
| | | No | 52 | 65 | | | |
| 4 | Pregnancy complication occurs in working women more than in unworking women. | Yes | 41 | 51.3 | 1.49 | 0.45 | low |
| | | No | 39 | 48.7 | | | |

Table 1 shows the observed frequencies, mean of score standard deviation of the studied questionnaires items concerning with the "pregnant women's knowledge" about (LHW) with their comparing significant. The result has indicated that there has been a highly significant differences at

Table 1 shows the observed frequencies, mean of score standard deviation of the studied questionnaires items concerning with the "pregnant women's knowledge" about (LHW) 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 except item 3 (long hours working its mean more than 40 hr, weekly. that indicate too highly successful with the " general women's knowledge " about (LHW) .

Table (2) pregnant womens knowledge about Effect of LHW on fetus Health with their Significant Differences

| Items | Questionnaire items | Resp. | Freq. | Perce. | M.S. | S.D. | assessment |
|--------------------|---------------------|-------|-------|--------|------|------|------------|
| Information | | | | | | | |



| <i>Information about effect of (LHW) on fetus health.</i> | | | | | | | |
|---|---|-----|----|------|------|------|------|
| 1 | Premature delivery (gestational age \leq 7 months) | Yes | 56 | 70 | 1.62 | 0.49 | High |
| | | No | 24 | 30 | | | |
| 2 | Stillbirth | Yes | 37 | 46.3 | 1.47 | 0.48 | low |
| | | No | 43 | 53.7 | | | |
| 3 | Deliver baby less than normal weight \leq 2,5kg | Yes | 29 | 36.3 | 1.15 | 0.50 | low |
| | | No | 51 | 63.7 | | | |
| 4 | Jaundice | Yes | 55 | 68.7 | 1.62 | 0.48 | high |
| | | No | 25 | 31.3 | | | |
| 5 | asphyxia | Yes | 37 | 46.2 | 1.46 | 0.50 | low |
| | | No | 43 | 53.8 | | | |
| 6 | Congenital abnormality of the fetus | Yes | 9 | 11.3 | 1.04 | 0.38 | low |
| | | No | 71 | 88.7 | | | |
| 7 | Fetus with small head | Yes | 22 | 27.5 | 1.39 | 0.41 | low |
| | | No | 58 | 72.5 | | | |
| 8 | Miscarriage | Yes | 62 | 77.5 | 1.59 | 0.50 | high |
| | | No | 18 | 22.5 | | | |
| 9 | Intra uterine growth retardation | Yes | 35 | 43.7 | 1.54 | 0.46 | high |
| | | No | 45 | 56.3 | | | |

Table 2 indicates that the mean of score was highly significant in items (Premature delivery (gestational age \leq 7 months), Jaundice, Miscarriage). and significant in items (Stillbirth, asphyxia , Intra uterine growth retardation) and low significant in item (Deliver baby less than normal weight \leq 2,5kg, Congenital abnormality of the fetus, Fetus with small head) that mean all the Questionnaire items concerning effect of LHW on fetus health fall at the upper bound of the cutoff point except items (Deliver baby less than normal weight \leq 2,5kg, Congenital abnormality of the fetus and Fetus with small head) .

Table (3) pregnant womens knowledge about Effect of LHW on woman Health with their Significant Differences



| Questionnaire items | | Resp. | Freq. | % | M.S. | S.D. | assessment |
|---|--------------------------------------|-------|-------|------|------|------|------------|
| Information | | | | | | | |
| <i>Information about effect of (LHW) on pregnant woman health .</i> | | | | | | | |
| 1 | PROM (premature rupture of membrane) | Yes | 42 | 52.5 | 1.58 | 0.49 | high |
| | | No | 38 | 47.5 | | | |
| 2 | Fatigue | Yes | 50 | 62.5 | 1.43 | 0.48 | low |
| | | No | 30 | 37.5 | | | |
| 3 | Deep Venus thrombosis | Yes | 47 | 58.7 | 1.51 | 0.50 | moderat |
| | | No | 33 | 41.3 | | | |
| 4 | Gestational hypertension | Yes | 48 | 60 | 1.57 | 0.47 | high |
| | | No | 32 | 40 | | | |
| 5 | Increased stress during pregnancy | Yes | 47 | 58.7 | 1.52 | 0.49 | moderat |
| | | No | 33 | 41.3 | | | |
| 6 | Placenta previa | Yes | 63 | 78.7 | 1.62 | 0.52 | high |
| | | No | 17 | 21.3 | | | |
| 7 | Antipartum hemorrhage | Yes | 22 | 27.5 | 1.40 | 0.39 | low |
| | | No | 58 | 72.5 | | | |
| 8 | Hemorrhoids | Yes | 21 | 26.3 | 1.39 | 0.40 | low |
| | | No | 59 | 73.7 | | | |

Table3 indicate that the mean of score was highly significant in item (PROM (premature rupture of membrane, Gestational hypertension, and Placenta previa), but significant in items(Fatigue, Deep Venus thrombosis, Increased stress during pregnancy) while low significant in item (Antipartum hemorrhage, and Hemorrhoids), that mean all the Questionnaire item concerning effect of LHW on pregnant woman health fall at the upper bound of the cutoff point except item (Antipartum hemorrhage , and Hemorrhoids) .



Table (4) Pregnant Women knowledge about Self care during working with their Significant Differences.

| Questionnaire items | Resp. | Freq. | % | M.S. | S.D. | C.S. | |
|--|--|-------|------|------|------|------|---------|
| Information | | | | | | | |
| 4. Women's knowledge about self care during LHW | | | | | | | |
| 1 | Don't working in some toxic substance especially in first and third trimester, | Yes | 55 | 68.7 | 1.53 | 0.51 | moderat |
| | No | 25 | 31.3 | | | | |
| 2 | Taking enough time for rest every two hours during working | Yes | 49 | 61.2 | 1.67 | 0.53 | high |
| | No | 31 | 38.8 | | | | |
| 3 | a complete healthy diet intake like fruits and vegetables. | Yes | 41 | 51.2 | 1.70 | 0.59 | high |
| | No | 17 | 48.8 | | | | |
| 4 | monitoring Fetus movement after 4 th months of GA | Yes | 52 | 65 | 1.60 | 0.54 | high |
| | No | 28 | 35 | | | | |
| 5 | Antenatal care visit continuously | Yes | 44 | 55 | 1.51 | 0.49 | high |
| | No | 36 | 45 | | | | |

Table 4 indicates that the mean of score was highly significant differences and significant differences in all items .that mean all the Questionnaire items concerning pregnant woman self-care during working fall at the upper bound of the cutoff point that indicate too highly successful with " pregnant women's knowledge about self-care " .

Table (5) 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 |
|-------|--|-----|-------|------------|------------|
| 1. | General information about (LHW). | 80 | 1.52 | 0.47 | fair |
| 2. | Effect of (LHW) on pregnant women health . | 80 | 1.51 | 0.46 | fair |



| | | | | | |
|----|-------------------------------------|----|------|------|------|
| 3. | Effect of (LHW) on fetus health . | 80 | 1.45 | 0.42 | low |
| 4. | Self-care during pregnancy with LHW | 80 | 1.50 | 0.41 | fair |

table 5 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 LHW during pregnancy , effect of LHW on fetus health , effect of LHW on pregnant woman health , and self-care during pregnancy with working.

4-Discussions:

Pregnant Women's Knowledge about long hours working (LHW)

Comparison significant of items responding for the pregnant women's knowledge about LHW 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 LHW:-

There are a highly significant differences in the items (Long hours working during pregnancy can increased mortality and morbidity of mother , Fetus mortality and morbidity increased in working mother and significant differences in the items Pregnancy complication occurs in working women more than in unworking women , this result agreement with the (6) of 500 pregnant women to assess their knowledge about pregnancy out come during working, the





result indicated that (82%) of these women were well knowledge and information about risk of LHW.

The pregnant women knowledge about effects of LHW on fetus health:-

there are a highly significant in the items (Premature delivery (gestational age ≤ 7 months) Jaundice, and Miscarriage and significant differences in the items (Stillbirth , asphyxia and Intra uterine growth retardation .The finding of my study agree with study conducted by (7) in Tehran on 376 pregnant women whom worked more than 40 hrs weekly to determine their knowledge about maternal-fetal out comes during working. that shows the pregnant women who worked are well knowledge and information about the risk of LHW (8).

Information about effects of LHW on pregnant woman health:-

There are a highly significant differences and significant differences in all items except items (hemorrhoid, and antipartum hemorrhage) this result reflected high level of knowledge at this particular items and these result agree with(9) study done by (Join ,2011) on 320 pregnant women who worked less than 40 hrs weekly, was founded (87%) of women had good level of knowledge about complications of working during late pregnancy.

The women knowledge about self care during pregnancy with working .:-

Concerning knowledge about self care during pregnancy with working 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 (Don't working in some toxic substance especially in first and third trimester , and Antenatal care visit continuously) , this result agree with study done by (Abedzadeh ,2011) on 200 worked pregnant women was founded (77%)





of women had good level of knowledge about self care during pregnancy with working.

5-Conclusions:

The vast majority of the study sample were reported within women who worked more than 40 hrs weekly.

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.

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

References:

- [1] C. Nath, Patil, "Prevalence of Consanguineous Marriage in a Rural Communities and its Effect on Pregnancy Outcome", *Indian journal of community medicine*, 2008, Vol .29, No. 2 ;38. 2007; 20(3): 121- 6.459–468
- [2] M.Abedzadeh,Taebi M., Sabat Z., Saberi F. "*Knowledge and Performance of Pregnant Women referring to Shabihkhani Hospital on Exercise during pregnancy after age 35*".*Journals of Jahrom University of Medicine Sciences*, Vol. 8, No. 4, 2011:28-32. Access at 26/11/2011.
- [3] AT,Abu-Heeija Jallad MF, Abukteish F. *Maternal and perinatal outcome of pregnancies after the age of 35*. J Obstet &Gynaecol Res. 2006;26:27-30.
- [4] A.Bahar, Abdullah, MamdohEskander, AdekunleSobande, Mohamed A. "*Risk Factors and Pregnancy Outcome during working* ." *Journal Obestat Gynecol Can (JOGC)*,Vol .13, No. 2, 2009; 126-130.
- [5] Dejene, Abetwe A, and Carol B, Danie A, Miller, and Michelle S " *assess pregnant womens knowledge about pregnancy complication with working* ",





online article 742083, 2011, access at 17/5/2012, is available from <http://www.isrn.com/journals/obgyn/2011/742083.com>

[6] Jadad, Sigouin C, Mohide PT, Levine M, Fuentes M. *Risk of congenital malformations associated with treatment of respiratory distress syndrome in worked pregnant women* , journal of *Obestat Gynecol* , London ,2009 .

[7] S,Matsumoto Nogami Y, and Ohkuri S, "*Pregnancy Complications*" *American College of Obstetrics and Gynecology*, Online, 2004, access at 30/3/2012, is available in <http://www.pregnancy.complications.com>

[8] O'Reilly-Green Marcus, S.F. and Brinsden, P.R. (2008) *In-vitro fertilization and embryo transfer in women aged 35 years and over*. *Hum. Reprod. Update*, 2,

[9] Sheena, Kaweet K., Halema Y., Sheerin, Bhutta. "*Is it Possible to reduced Rates of fetus complication in pregnant whoworking* ". *Journal Pak Med Assoc.* Vol .60, No .7, 2010; 566-569.

[10] N., Zamani "*Diagnosis, Management and outcome of Placenta previa, Mother and Child*", 3rded, pakInc, 2005, P; 36-34.

