Environmental Effects On Women's With Spontaneous Abortion

التأثيرات البيئية للمرأة التي تعاني الاجهاض التلقائي

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الخلاصة:

الخلفية:يعد الإجهاض   أهم النتائج العكسية للحمل   يؤثر على نسل الإنسان.   لاتتأثر فقط بالعوامل الحيوية والديموغرافية مثل عدد مرات الحمل وتاريخ الإجهاض   لكن يتأثر أيضا بالصفات الاجتماعية الشخصية وكذلك بالعوامل البيئية الاجتماعية.

الهدف: اثر البيئة على المرأه التي تعاني الاجهاض التلقائي.

المنهجية:أجريت دراسة وصفية على عينة غير احتمالية (غرضيه)   (   )   في ردهات النسائية والتوليد في   مستشفيات في مدينة :مستشفى الكرخ التعليمي للولادة مستشفى العلوية التعليمي للولادة مستشفى اليرموك التعليمي مستشفى بغداد التعليمي. نيسان   استخدمت الاستبانة كأداة لجمع المعلومات لتحقيق هدف الدراسة وتتكون من الديموغرافية الإنجابية   الإجهاض   محور البيئي.   الدراسة الاستطلاعية لاختبار ثبات الاستبانة وجرى صدق المحتوى من خلال (   ) خبير واستخدم   والاستدلالي في تحليل البيانات.

النتائج: (%)   أعمارهن (-   )   (%)   ضمن الوزن الطبيعي و(,   %) خريجات ابتدائية (%)   خريجون كلية   معهد و(%) يعملن ربات بيوت و (,   %)   (%) منهن ضمن مستوى اقتصادي . أما عن المعلومات الإنجابية (%)من النساء أما بكريه أو متعددة الحمل و (%) من النساء لديهن على الأقل ولادتين و(,   %) لديهن إجهاض   .أما عن العلاقة بين الاليبيئي و المعلومات الديموغرافية فهناك علاقة بين وظيفة الزوج   لبيئه وبين طبيعة العم_ . وكذلك هناك علاقة بين الجانب البيئي والمؤشرات الإنجابية (   ).

الاستنتاجات:استنادا الى نتائج الدراسة هناك   بين محور البيئة والمعلومات الديموغرافية(وظيفة الزوج طبيعة العمل)و كذلك بين محور البيئة والمؤشرات الانجابية (   ).

التوصيات: بعمل برنامج تعليمي للنساء خلال الحمل يتضمن (معنى الإجهاض التلقائي   والوقاية منة)في المراكز الصحية. أوصت الدراسة الدور الفعال لوزارة الصحة في نشر الوعي نحو هذه المشكلة بعمل المحاضرات وكتيب.

Abstract

Background: spontaneous abortion constitutes one of the most important adverse pregnancy outcomes affecting human reproduction, and its risk factors are not only affected by biological, demographic factors such as age, gravidity, and previous history of miscarriage, but also by individual women's personal social characteristics, and by the larger social environment.

Objective : To identify Environmental effects on Women's with Spontaneous Abortion.

Methodology: Non-probability (purposive sample)of (200) women, who were suffering from spontaneous abortion in maternity unit from four hospitals at Baghdad City which include Al-Elwia Maternity Teaching Hospital, and Baghdad Teaching Hospital at Al-Russafa sector. Al –karckh MaternityHospital ,and Al-Yarmook Teaching Hospital at Al-karckh sector. The data are collected through the use of constructed questionnaire, which included: demographic characteristics, reproductive characteristics, causes of spontaneous abortion ,and Environment domain of quality of life. Data were collected through the use of questionnaire, Study implemented for the period of February 3rd 2013 to April 26th 2013. A pilot study was carried out to test the reliability of the questionnaire and content validity was carried out through the 20 experts. Descriptive and inferential statistical analyses were used to analyze the data**.**

Results: The results of the study revealed that (26.5%) of women their average age (25-29) years, and the their body mass index (48%) at normal weight, (27.5%) of study sample was graduated from primary school,(25%) of their husband graduated from institute or college, (80%) of samples are housewives, (54.5%) of their husband employed,(48%) of study sample is within low category of socioeconomic status, and about the reproductive information (66%) of women were primi and multi gravid, (25%) of women have two birth, (52.5%) have previous one abortion. There are association betweenoccupation status of husband, and the nature of work of wife and husband with environmental domain, and with reproductive parameters it presents association between women's gravida and environmental domain.

Conclusions: There are significant association between environment domain of and women's sociodemographic at (occupation status of husband, and the nature of work of wife and husband) and with reproductive parameter at (gravida).

Recommendations: The study recommended conduct structured teaching programmed (STP) to antenatal mothers with history of miscarriage conducted by the investigator included meaning, causes, and prevention of miscarriage. It also includes the do's and the don'ts during 1st trimester of pregnancy, and collaborative action can Ministry of Health take in distribution of awareness for women towards the problem by conducting booklet or lecture about miscarriage

Keywords: Environmental effects, Spontaneous Abortion, Quality of Life

INTRODUCTION:

Spontaneous abortion and miscarriage are synonymous terms. In the medical literature, spontaneous abortion is most often used, while in clinical practice and among the general population, it occur in approximately 15-20% of all known[1].One factor that does increase likelihood of miscarriage is regular exposure to environmental factors classified as teratogens, or agents that have been found to cause disruption in fetal development. Teratogens can be toxic chemicals and radiation, certain viral and bacterial infections, or even cigarette smoke and alcohol [2]. The effects may emerge at key life transitions: for example, when attempting conception, during pregnancy, during development of the embryo or fetus, in the newborn, and during the offspring's childhood, puberty, and eventual fertility as an adult. For this reason, it is important to be aware of the potential effects over a long period of time, rather than only during the period immediately after exposure. These effects include early pregnancy loss, fetal death, impaired fetal growth, low birth weight, premature birth, and structural (e.g., cardiac defect) or functional (e.g., learning disability) birth defects [3].

OBJECTIVES: - To identify Environmental effects on Women's with Spontaneous Abortion.

METHODOLOGY:

A descriptive Analytical study was carried out upon women who suffering from spontaneous abortion in maternity unit. Study implemented for the period of February 3rd 2013 to April 26th 2013. Data collection will be gathered by questionnaire format and interview with women. The period of data collection for all hospitals was three months. The research study was conducted in four hospitals at Baghdad City which include Al-Elwiya Maternity Teaching Hospital, and Baghdad Teaching Hospital at Al-Russafa sector. Al –karekh Maternity Hospital, and Al-Yarmook Teaching Hospital at Al-karekh sector. Number of the sample who suffering from spontaneous abortion in maternity unit in their hospitals were selected as study sample. A questionnaire was used as a tool of data collection to fulfill with objective of the study and consisted of four parts, including demographic, reproductive characteristics, causes of spontaneous abortion, and environment domains of quality of life. A pilot study was carried out between the January 25th to January 31st of 2013, on (10) women who suffering from spontaneous abortion in maternity unit to determine the reliability of the questionnaire and content validity was carried out through the 20 experts. Descriptive and inferential statistical analyses were used to analyze the data.

RESULTS:

Table (1): Distribution of Socio-Demographical Characteristics of (200) Women with Spontaneous Abortion

Variables	Groups	Freq.	%	C.S. [*] [P-value]
Age Groups (Per Years)	< 20	12	6	χ^2= 73.420 P=0.000 HS
	20 - 24	41	20.5	
	25 - 29	53	26.5	
	30 - 34	42	21	
	35 - 39	33	16.5	
	40 - 44	18	9	
	45 - 49	1	0.5	
	Mean ± SD		30.025 ± 7.00	
Educational level - wife	Illiterate	24	12	χ^2= 34.420 P=0.000 HS
	Reads and writes	20	10	
	Primary	55	27.5	
	Intermediate	28	14	
	Preparatory	23	11.5	
	Institute , college or above	50	25	
Educational Level Husband	Illiterate	17	8.5	χ^2= 26.200 P=0.000 HS
	Reads and writes	29	14.5	
	Primary	38	19	
	Intermediate	45	22.5	
	Preparatory	21	10.5	
	Institute , College or above	50	25	
Occupational Status of Wife	Housewife	160	80	χ^2= 338.120 P=0.000 HS
	Student	1	0.5	
	Employee	36	18	
	Free Jobs	3	1.5	
Occupational Status of the Husband	Official	75	37.5	χ^2= 154.640 P=0.000 HS
	Employee	109	54.5	
	Retired	1	0.5	
	Without Work	15	7.5	
Place of Work for wife	Very Close	8	20.5	χ^2=9.103 P=0.028 S
	Close	17	43.6	
	Far	10	25.6	
	Too Far	4	10.3	
Specialization in which they operates	Written Work	6	15.4	χ^2=19.154 P=0.000 HS
	Work requires focus on mind	21	53.8	
	Work in the Center of the Contaminated etc.	3	7.7	
	Body Act (Heavy load, …etc)	9	23.1	
Residential Environment	Urban	184	92	χ^2= 310.510 P=0.000 HS
	Rural	13	6.5	
	Sub urban	3	1.5	

Table (1) shows a highly significant differences at P<0.01 among the different of the studied levels at all Socio-Demographical Characteristics variables. **Relative to age groups**, the majority of the sample were reported (26.5%) at the age ranged (25 – 29) yrs. **Regarding to the women's level of education**, the greater number of them illustrated low levels of education (illiterate, read& write,

primary, and intermediate schools) and they are accounted for 127(63.3%) of the total sample, **and with respects to husband level of education**, the greater number of them illustrated high level of education(Institute , college or above) and they are accounted for (25%) of the total sample. **With respect to the women's occupational status**, the majority of the sample are "Housewife", and they accounted for 160 (80.0%) of the total sample, and **with respects to the husband occupational status**, the majority of the sample are "Employee", and they accounted 109(54.5%) of the total sample. **Relative to "Place of Work for wife"** the highest percentage are accounted 17(43.6%) at close place of work. **Relative to "Specialization in which they operates"** the highest percentage are accounted 21(53.8%) at work that requires women's focus on mind. **Relative to women's "Residential Environment"**, results indicated that a highest percentage of the study sample are "Urban", and they are accounted 184 (92.0%).
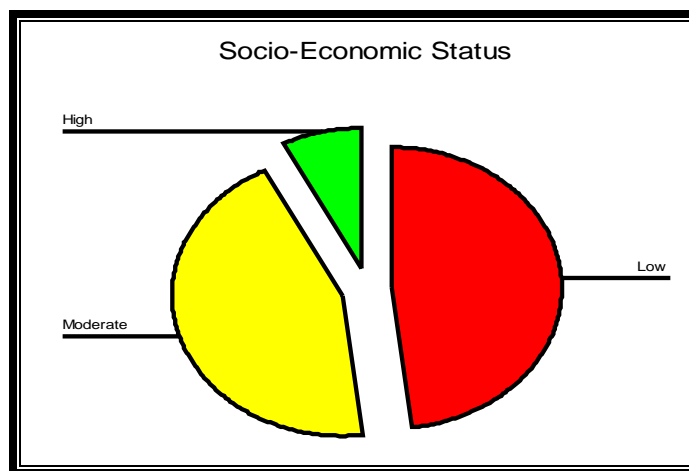

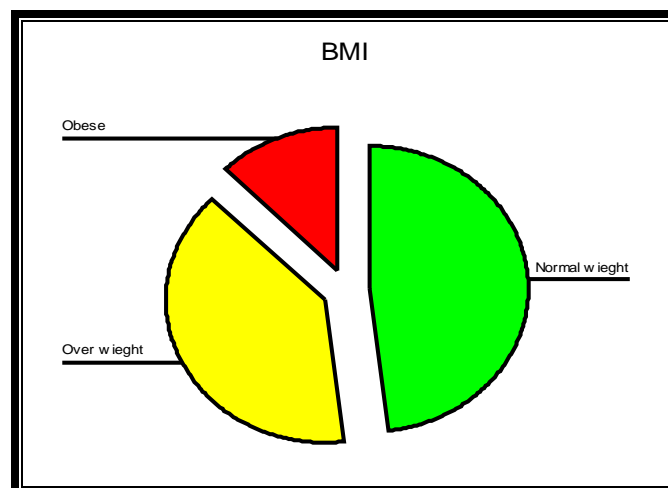**Figure (1): Socioeconomic Status of the Studied Sample**

Figure (2): BMI Groups of the Studied Sample

Table (2): Distribution of Reproductive Parameters of (200) Women with Spontaneous Abortion

Reproductive Parameters	Groups	Freq.	Percent	C.S. [*][P-value]
Gravida	1 - 2	66	33	χ^2= 122.92 P=0.000 HS
	3 - 4	66	33	
	5 - 6	41	20.5	
	7 - 8	17	8.5	
	9 - 10	9	4.5	
	11 - 12	1	0.5	
Para	0	49	24.5	χ^2= 291.54 P=0.000 HS
	1	41	20.5	
	2	50	25.0	
	3	26	13.0	
	4	16	8.0	
	5 +	18	9.0	
Abortions	1	105	52.5	χ^2= 35.140 P=0.000 HS
	2	41	20.5	
	3	34	17	
	4	12	6	
	5	6	3	
	6	1	0.5	
	7	1	0.5	
Blood group- Wife	A	47	23.5	χ^2= 144.76 P=0.000 HS
	B	23	11.5	
	AB	10	5	
	O	120	60	
Blood Group - Husband	A	34	17	χ^2= 222.88 P=0.000 HS
	B	18	9	
	AB	8	4	
	O	140	70	
Rhesus - Wife	Positive	178	89	**Binomial test P=0.000 HS**
	Negative	22	11	
Rhesus - Husband	Positive	196	98	**Binomial test P=0.000 HS**
	Negative	4	2	
Type of Current Abortion	Septic	0	0	χ^2=103.12 P=0.000 HS
	Threatened	53	26.5	
	Inevitable	8	4	
	Missed	67	33.5	
	Complete	2	1	
	Incomplete	23	11.5	
	Habitual	47	23.5	

[*] **HS: Highly Sig. at P<0.0**   [**]**Study Samples Have More than One Causes.**

Table (2) shows that the **women's Gravida** the majority of the sample is reported at the first and second groups with range interval (1 - 4) states, and they are accounted 132(66.0%).**Relative to women's parity** the highest percentage 50(25%) second delivery, 49(24.5%) multipara, and 41(20.5%) primipara. **Relative to women's "Number of Abortion"**, the majority of the sample was reported at "previous one abortion", and they are accounted 105(52.5%) of the study sample. **Regarding to " Blood Group - wife and husband"**, the vast majority types of Blood group were recorded at group " O ", and they are accounted 120(60.0%) and 140(70.0%) respectively. In addition to that, "Rhesus - wife and husband", the vast majority were reported at "Positive" type and they are accounted 178(89.0%) and 196(98.0%) respectively. **Finally, "Type of Current Abortion"**, contains several types, the vast majority types were recorded at "Missed", and they are accounted 67(33.5%). The results have indicated that there are a highly significant differences at P<0.01 among the different of the studied parameter levels.

Table (3) : Distribution of (200) Women with Spontaneous Abortion according to Cutoff Point for the Studied Questionnaire's items at the Three Sub Domain of Environment Main Domain of Quality of Life.

Item N.	Environment Domain	Groups	F	%	No.	MS	SD	RS	Ass.
1-Sub Domain (Home Environment)									
1.1	Home environment made me feel nervous	Never	93	46.5	200	1.79	0.82	*59.67	P
		Sometimes	57	28.5					
		Always	50	25					
2.1	Home environment caused me distress	Never	114	57	200	1.66	0.83	*55.33	P
		Sometimes	40	20					
		Always	46	23					
2-Sub Domain (Health and Social care)									
1.2	I'm scared of not knowing how to take care of myself	Never	155	77.5	200	2.02	0.90	67.33	F
		Sometimes	41	20.5					
		Always	4	2					
2.2	Poor services provided by health care centers	Never	126	63	200	1.25	0.48	*41.67	P
		Sometimes	46	23					
		Always	28	14					
3.2	Health care I receive is not sufficient	Never	79	39.5	200	1.51	0.73	50.33	P
		Sometimes	39	19.5					
		Always	82	41					
4.2	I'm afraid of not being able to meet the needs of my health care	Never	104	52	200	1.75	0.86	*58.33	P
		Sometimes	42	21					
		Always	54	27					
3-Sub Domain (Financial Resources)									
1.3	My family income is not enough	Never	112	56	200	1.65	0.81	*55.00	P
		Sometimes	46	23					
		Always	42	21					
2.3	I do not have the ability to cover the needs of my healthcare	Never	113	56.5	200	1.65	0.82	*55.00	P
		Sometimes	43	21.5					
		Always	44	22					
3.3	My family helped me to meet my health needs	Never	19	9.5	200	2.54	0.66	84.67	P
		Sometimes	54	27					
		Always	127	63.5					

Regarding Part 1 of "Environment Main Domain" in light of "**Home Environment**", table 3 shows " Pass – (P)" assessment at the two items, since their relative sufficiency were under cutoff point (66.67%) for negative scale scoring for and they are accounted 2(100.0%).Regarding subdomain two **"Health Care and Social Care ",** it presents " Pass – (P)" assessment at the items "2,3,and 4", since their relative sufficiency were under cutoff point (66.67%) for negative scale scoring and they are accounted 3(75.0%), while the leftover item were reported "Failure – (F)" assessment, since their relative sufficiency were upper cutoff point (66.67%) and accounted 1(25.0%). Regarding women's responses of Part 3 of **"Financial Resources ",** it presents " Pass – (P)" assessment at all items, since their relative sufficiency were under cutoff point (66.67%) for negative scale scoring for items 1&2 and upper than the cutoff point for positive scale scoring for the item my family helped me to meet my health needs and they are accounted 3(100**).**

Table (4): Association between Socio-Demographical Characteristics Variables with an Overall Assessments due to Compact all Main Domains according to "Under/Upper" Cutoff Point

Demographical Characteristics X Overall(QoL) Assessment	Environment Domain	
	C.C.	Sig.
Age Groups	0.189	0.286
Education Level -wife	0.109	0.793
Education - husband	0.144	0.514
Occupation - wife	0.135	0291
Occupation -husband	0.232	0.010
Residency	0.109	0.302
Place of work	0.154	0.813
Nature of work	0.418	0.041
Housing type	0.097	0.170
Family type	0.035	0.624
Consanguinity	0.006	0.935
Socioeconomic Status	0.113	0.107

[*]NS : Non Sig. at P>0.05 ; S : Sig. at P<0.05 ; HS : Highly Sig. at P<0.01[*]**Sig:-**Significant

The table demonstrates statistical significant differences between husband occupation and environment domain (p=0.010), nature of work and environmental domain (p=0.041), and finally no significant difference with leftover characters.

Table (5): Association between Basis Information and Reproductive Parameters with an Overall Assessments due to Compact all Main Domains according to "Under/Upper" Cutoff Point

Reproductive parameters X Overall(QoL) Assessment	Environment Domain	
	C.C.	Sig.
Gravida	0.242	0.029
Para	0.173	0.292
Number of abortion	0.150	0.593
Type of current abortion	0.126	0.777

[*]NS : Non Sig. at P>0.05 ; S : Sig. at P<0.05 ; HS : Highly Sig. at P<0.01[*]**Sig:** Significant

The table demonstrates the association between women's gravid and environmental domain (p=0.029).

DISCUSSION OF THE RESULTS:

Socio Demographic Characteristic:(Table 1)

1.Age:- The highest percentage (26.5%) of the study sample are at age group ranged (25 – 29) years;and the mean age with SD of age old (30.025± 7.00). This finding is in agreement with, Wyatt et.al [4] study in which they considered that fetal loss rates increased in both younger and older women. In this study spontaneous fetal loss rates in each group were evaluated after adjusting fetal losses associated with amniocentesis and identifiable ethnic groups.

2.Education level for both (wife and husband): The greater number of them illustrated low levels of education, such as illiterate, read and write, primary, and intermediate schools and they are accounted for 127(63.3%) of the total sample in wife, and the greater number of husband illustrated high levels of education(Institute, College or above) are accounted for 50 (25%) of the total sample This finding is consistent with Norsker et.al.,[5] study in Denmark in which the women of lower educational status have an elevated risk of spontaneous abortion, the large cohort study is based upon a large population and a considerable number of spontaneous abortions. The findings indicate

to that Women with <10 years of education had an elevated risk of spontaneous abortion when compared with women with >12 years of education.

3.Occupational level for both (wife and husband)

A height significant in occupational status of wife, are "Housewife", and they are accounted for160 (80.0%) of the total sample, and with respects level of occupational status of husband, the majority of the sample are "Employee", and they are accounted for109 (54.5%) of the total sample. This finding is constant with study reported by Banerjee,[6] who revealed that the significant work factors directly correlated with adverse pregnancy outcomes included: fewer household helpers, standing at work for more than 17 hours per day, working in hot environments, commuting, walking, and carrying and lifting heavy weight.

4.Residential Environment

The vast majority of the women were living at urban areas accounted 184(92%).Such finding had emerged due to the fact that urban areas were having crowded and transportation was available and made easier for them to seek health care. But in rural area they were considered women who had spontaneous abortion as stigma, therefore ,large number of them prefer to go at a midwife to reach their facility care. This is in agreement with study reported by Carlson and Mourgova [7];Yong and Wang, [8]they presented that place of residence, affect the risk of miscarriage, it concluded that women in cities reported a level of miscarriage clearly higher than those in towns and in the countryside: 3.7 versus 3.2 and 3 percent respectively.

5.Consanguinity:

Although that the majority of the sample were reported non consanguinity , and they are accounted 111(55.5%), whereas whose had consanguinity are accounted 89(44.5%), it can be interpreted that the vast majority of women were living at the urban areas. So that the life style can create an impact on the social relations to become with partners who have non consanguinity to start with a social life, but result of this study represent no significant different at p<0.05 between consanguinity and spontaneous abortion occurrence.

Socioeconomic Status :-(Figure 1)

The vast majority of the study sample is within low category and accounted for 96(48.0%), then followed within moderate category of assessment and they accounted for 89(44.5%) and the remaining within high score and accounted for 15(7.5%).This result is constant with studies of Sundari,[9] and Family Health International (fhi)[10]they reported that the social and economic circumstances under which women live influence their reproductive behavior. Poor families tend to marry off their daughters at a young age, which usually means these young wives start having children right away. This often perpetuates a vicious cycle of poverty, low education, and high rates of unintended pregnancy and fertility, and have poorer health status because their limited access to resource inhibits access to good food and health care. Women from the poorer segments of society are more likely to have an unintended pregnancy than wealthier women for a variety of reasons. More important, poor women are less likely to decide independently about using contraception, and they may have less access to family planning information and services. In Egypt, pregnant women in the poorest fifth of the population are twice as likely to report their pregnancy as unintended as those in the wealthiest fifth.

Body Mass Index (Figure 2)

The vast majority of the study sample is within normal weight group, and they are accounted for 96(48.0%), but the overweight, and obesity are highest association together they are accounted 104(52%)of the study sample, these result are in agreement with the study reported by Turner et.al.,[11] who concluded that the miscarriage rate was 2.3% in the obese category (n=217), compared with 3.3% in the overweight category (n=329), and 2.3% in the normal BMI group (n=621). Its means that the rate of spontaneous miscarriage is low and is not increased in women with BMI>29.9 kg/m(2) compared to women in the normal BMI category. Other study reported by Fedorcsak et.al.; Glueck et.al.; Bellver et.al. showed significant differences in spontaneous abortion rates between obese women (38.1%, BMI=30 kg/m^2) and normal weight (13.3%, BMI 20-24.9

kg/m^2) or overweight (15.5%, BMI 25-29.9 kg/m^2) women, supporting the concept that obesity is an independent risk factor for spontaneous abortion.

Reproductive Parameters (Table2)

1.Gravida (Number of Pregnancy)

The investigation of women who suffer from spontaneous abortion are primigravida and multigravida. Some of the women who are multigravida had previous stillbirth, preterm birth, multiple birth, and previous miscarriage. This finding is constant with Yong& Wang,[8] study who reported that gravidity, length of pregnancy interval, and pregnancy history are highly correlated, they also pose a challenge to assessing the independent effect of each on the occurrence of miscarriage.

2.Para:-The majority of the sample reported at second delivery and they are accounted 50(25%), nullipara 49(24.5%), and primipara 41(20.5%) of the study sample, this result is in agreement with Sundari, [9] study who reported that women of parity two and three had a slightly higher rate of neonatal deaths than primiparae women. However, this does not alter the finding that negative pregnancy outcome is associated more with lower order pregnancies contrary to the findings reported by other studies which find a relationship between parity and negative pregnancy outcome: high for primiparae, low for parities two to four or five, and increasing steeply thereafter.

3.Number of Abortion:-

The majority of the sample was reported at "previous one abortion", and they are accounted 105(52.5%),previous two 41(20.5%) and previous three are accounted 34(17%) of the study sample. This result is in agreement with Hassan and Killick,[12] study. They reported after a previous miscarriage, the risk of miscarriage in the subsequent pregnancy is increased to 16–20%.

4.**Blood group and Rh:**

The wife and husband who have type (O)of blood group hasn't any problem or any risk for their fetus, but this study reported Rh negative at some of wife who accounted 22 (11%) and at some of husband who accounted 4(2%), which can cause risk for miscarriage. These results are in agreement with study of Ghasemi et.al.,[13] who reported that the blood group incompatibility can affect adversely the outcome of pregnancy. Couples with blood group incompatibility are more involved in spontaneous miscarriage.

5.Type of Current Abortion:-

This study present that the vast majority of abortion types were recorded at "Missed, Threatened, and Habitual ", and they are accounted 67(33.5%), 53(26.5%), and 47(23.5%) respectively, while the others types were reported with the leftover "Incomplete, Inevitable, and Complete", and they are accounted 23(11.5%), 8(4.0%), and 2(1.0%) respectively. This study present that majority of abortion types are missed abortion related to that, missed abortion may be no symptoms at all, or just little amount of a brownish vaginal discharge or brown vaginal bleeding may occasionally be seen, pain is unlikely and os will be closed (Neville et.al)[14].

Relative to Environment Domains:-(Table 3)

1.Home Environment

This result can be interpreted in a way that investigated women suffering from nervous and distress from the home live due to discomfort from family work burden responsibility, uncomfortable house because un available of simplest things for rest and comfortable, and finally due to the behavior of some person live with them. This result is in agreement with study of Evans and Kantrowitz,[15];Kruize and Bouwman,[16]; Walker et.al.[17], they reported that the risk of miscarriage has also been linked to a woman's behavior and to the social and environmental context a woman lives in, which is referred to as "residential location" which leads to different levels risk when exposure to conditions such as e.g. lack of comfort, home safety, space accessibility and other factors all impact on health and the respective exposure varies between social groups and within the population.

2.Health Care and Social Care

This study presented that majority of women hadn't problem with health receive from health care center. They are satisfied about the care, but there are a little of them can't until to receive this type of care due to far distance and un available of transporting .These results are in agreement with Nikpour et.al.,[18] study who reported that the majority of women (90.7%) were satisfied with the received prenatal care. Therefore they could use health services continuously and appropriately so encouraging the other women to use the services frequently would be necessary.

3.Financial Resources:-

The major of study samples are unable to cover the cost of medication and health care especially when women had medical disease. The low socioeconomic status of these group affect on women health care that need during pregnancy and also when the miscarriage occurs for example tablet(cytotic) that women need to terminate pregnancy under doctor prescription without making dilatation and curettage is consider very expensive for these group of women.

Husband Occupation and Nature of Work there is Association with Environment.(Table 4)

In this study the highest percentage of husband were employed and at different environment work. So according to this study there is correlation between nature of husband work and environment and between nature of women work and environment domain on reproductive outcomes. These result are in agreement with studies of Sallmé et al,[19]; Friedman,[20]; Bellinger,[21]; Cordier, [22]they reported that men and women who are exposed to various substances in the workplace, some physically strenuous work conditions (e.g. heavy lifting, frequent bending) might increase the risk of negative pregnancy outcome, especially among women with other risk factors (e.g. with previous fetal losses) or in the presence of other work related risk including lead, organic solvent, and radiation. Exposure may be associated with decrease sperm production, increase sperm abnormalities ,decrease fertility and risk of miscarriage in parents of these worker.

Women's Gravida and Environmental (Table 5)

In this study the majority of women were both primi and multi gravid (33%). The highest percentage of multi gravid women had a previous stillbirth, preterm, multiple birth, and previous abortion, and little of them had life birth. So according to result of this study there are major factors in women environment effect on women pregnancy. Even the women were in work environment or in home environment. This result is in agreement with Mozurkewich,[23]; who reported that the environment and working habits of a pregnant woman might affect her pregnancy outcome. Women should be encouraged to be aware of protective practices within their workplace, to enable preventive action to be initiated with regard to any threat posed to their pregnancy by their working environment.

CONCLUSIONS:

There are significant association between environment domain of and women's sociodemographic at (occupation status of husband, and the nature of work of wife and husband) and with reproductive parameter at (gravida).

RECOMMENDATIONS:

The study recommended conduct structured teaching programmed (STP) to antenatal mothers with history of miscarriage conducted by the investigator included meaning, causes, and prevention of miscarriage. It also includes the do's and the don'ts during 1st trimester of pregnancy, and collaborative action can Ministry of Health take in distribution of awareness for women towards the problem by conducting booklet or lecture about miscarriage

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