Incidence Rate of Abortion and its Relationship with Sociodemographic Characteristics and Reproductive History among Women at Maternal and Pediatric Hospital in AL Diwaniyah City

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Abstract

Background: Abortion is one of the most common gynecological procedures worldwide (1). Abortion is a significant public health problem for women and young adults (2).

Methodology: A descriptive study conducted to identify Incidence Rate of Abortions and its relation with Sociodemographic Characteristics and reproductive history among Women at AL Diwaniyah City's Maternal and Pediatric Hospital from the period 16 September 2020 to 16 March 2021 . The sample study include (100) pregnant women. The study tool was a questionnaire, The panel of experts determines the validity of the questionnaires, and the reliability of the questionnaire is very high in terms of stability and internal consistency. The information was collected from 25 November 2020 to 25 February 2021 .The data was analyzed through the use of a statistical package for social sciences (SPSS) version. Descriptive statistical measures were used and inferred.

Results: The results of the study indicate that the majority of the study sample was in middle age (25 -35) years is mean ($\bar{x} \mp$S.D., 19.1± 0.805), living in city areas 54%, and a middle school level (24%), mostly housewives (63%) and with regard to monthly family income Barely Sufficient (45%), number of pregnancy fifth and more(28%), number of previous births is zero (31%), number of times abortion occurs is once (63%), Point of abortion occur in first trimester (63%),Types of abortion is surgical interference (56%).

Conclusions: The study concluded that the Incidence Rate of Abortions in Women in this study was 0.8%, statistically significant there was relationship between Sociodemographic Characteristics , Reproductive History of Maternity and abortion . There was no significant relationship between abortion and residence, education level and socio-economic levels.

Key words: *Incidence rate , abortion, Sociodemographic, Reproductive History , among Women.*

Itroduction

Abortion is a frequent occurrence in the reproductive lives of women (3). Abortion is defined as the termination of pregnancy before viability is reached. In other words, the termination of pregnancy before the fetus is capable of independent life (4)..The emotional issue of induced abortion is (5).

The ages at which women have repeated abortion-induced abortions vary greatly across regions. Almost 60% of women who have repeatedly induced abortion in sub-Saharan Africa are younger than 25-25% are only in their teens. In Asia, women 25 and older account for 70% of repeat-induced abortions; many of them already have children and want to reduce the size of the family. More than half of repeated induced abortions occur among women in Latin America and the Caribbean who are in their 20s, indicating that women in this area use repeated induced abortion for space births and restrict family size (6).

Abortion is responsible for a significant portion of maternal mortality in developing countries [7]. According to the findings in his study, there was a statistically significant connection between abortion and maternal age. There are three ways of management once spontaneous pregnancy failure has been diagnosed: expectant, medical, or surgical. gestational age determines the optimum mode of management [8].

Both surgical and medical abortion are highly efficient, safe and appropriate, but vary in different ways, such as length, bleeding and cramping [9] . We were unable to determine the exact gestation week of each abortion, which is known to be a strong predictor of complication risk [10]. An significant time sometimes fraught with complications such as bleeding and pain is the first trimester of pregnancy, leading to extreme motherhood apprehension [11].

Methodology

The aims of the study:

Study design: The study was descriptive (no experimental)using quantitative data collection method, Across section study conducted to identify A descriptive study conducted to identify Incidence Rate of Abortions and its relation with Sociodemographic Characteristics and reproductive history among Women at AL Diwaniyah City's Maternity Hospital during the period of (from September 16th, 2020 to March, 16th, 2020).

Study Sample: A purposive and non-probability sample consisted of one hundred married women who were at reproductive age , pregnant (prime or multipara) who were pregnancy.

Study Instrument: A questionnaire is constructed for the purpose of the study throughout the review of literature and background experience and consultation from panel of experts and related studies. It consists of two parts:

Part I: This part contains Socio-Demographic information It includes the following variables; Age, Residence, Educational level for woman, Occupation, Monthly income (From woman's point of view.(

Part II: Women's Reproductive History

Data Collection the Methods: Data collection process preformed using the study questionnaire started at 25 November 2020 to 25 February 2021, The duration of the data collection was Two month.

Statistical analysis:

Data are analysis through the use of SPSS (Statistical Package for Social Sciences) version 25.0 application Statistical analysis system and Excel application The following statistical data analysis approaches are used in order to analyze and assess the results of the study.

Results

Table (1): Participants' Sociodemographic characteristics (N = 100)

Basic Information	Groups	Frequency	Percent
Age groups	15 – 25 Years	34	34
	26 – 35 Years	44	44
	36 – 45 Years	19	19
	46 Years and more*	3	3
	$\bar{x} \mp$S.D.		19.1± 0.805
	Total	100	100

Cont... **Table (1): Participants' Sociodemographic characteristics (N = 100)**

Residency	Attended	54	54
	Attended Parties	34	34
	Rural	12	12
	Total	100	100
Educational Qualification	Read and Write	12	12
	Read Only	2	2
	Don't read and don't write	16	16
	Primary	11	11
	Middle school	24	24
	preparatory	11	11
	Institute	16	16
	Bachelor and Higher	8	8
	Total	100	100
Occupation	Housewife	63	63
	Government Employ	18	18
	Free profession	19	19
	Total	100	100
Monthly Income	Sufficient	37	37
	Not Sufficient	18	18
	Barely Sufficient	45	45
	Total	100	100

Freq.=Frequencies, **%=Percentages,** $\bar{x} \mp S.D$ $\bar{x} \mp S.D$ **=Arithmetic Mean and Std. Dev. (S.D.)**, *** Age more than 41 years**.

This table indicated that (44%) of the study sample at age groups of (26-35) years with mean of (19.1) years.

Concerning the residence of women , the greater number of study sample are 54 were lives at Attended account for (54%).

In related to the educational qualification, the majority of study sample are (24.0%) have Intermediate school.

Regarding Occupation the majority of study sample where (63%) Housewife.

Regarding to Monthly income of women the majority of study sample were (45%) Barely Sufficient.

Table (2): Distribution of the Women Reproductive History

Basic Information	Groups	Frequency	Percent
Number of Pregnancies	Once	23	23
	Twice	14	14
	Third	22	22
	Fourth	13	13
	Fifth and more	28	28
	Total	100	100
Number of Previous Births	0	31	31
	0nce	23	23
	Twice	15	15
	Third	11	11
	Fourth	4	4
	Fifth and more	16	16
	Total	100	100
Number of Times Abortion occurs	Once	63	63
	Twice	27	27
	Third	8	8
	Fourth	2	2
	Total	100	100
Point of Abortion Occur	First Semester	63	63
	Second Semester	29	29
	Third Semester	8	8
	Total	100	100
Types of Abortion	Automatic	44	44
	Surgical Interference	56	56
	Total	100	100

Freq.=Frequencies, %=Percentages

Regarding to number of pregnancies of women in this study the majority of study sample (28%) were fifth and more.

Related to number of previous births of women in this study the majority of study sample (31%) zero number of previous birth.

The number of times abortion occurs of women in this study the majority of study sample (63%) once times of abortion occur.

Regarding to the point of abortion occurs of women in this study the majority of study sample (63%) at first semester of pregnancies.

Finally the majority of study sample types of abortion (56%) were with surgical interference.

Table (3) : Distribution and Association between number of abortion and number of previous births :

Study Sample			Number of previous births						
			Once	Twice	Third	Fourth	Fifth and More	Total	X2 P Sig
Number of Times Abortion Occurs	Once	F	23	9	9	7	15	63	27.662 0.006 S
		%	36.5%	14.3%	14.3%	11.1	23.8	100%	
	Twice	F	0	5	9	4	9	27	
		%	0.0%	18.5%	33.3%	14.8	33.3	100%	
	Third	F	0	0	4	2	2	8	
		%	0.0%	0.0%	50.0%	25.0	25	100	
	Fourth	F	0	0	0	0	2	2	
		%	0.0%	0.0%	0.0%	0	100%	100	
Total		F	23	14	22	13	28	100	
		%	23%	14%	22%	13%	28%	100%	

Freq.=Frequencies, %=Percentages, X2= Chi Square P=P-value, S= Significant , N.S.=Non-Significant .

Table (3) show there is statistical significant association between the numbers of abortion and number of previous births at (p value > 0.05).

Table (4): Statistical Associations of the Study Sample between the Demographic Variables (age, Residency, Educational Level, Occupation and Monthly Income) by (ANOVA):

N	Demographic Variables	Statistics				
		Mean±S.D.	F	d.f	P. value	Sig
1	Age	19.1± 0.805	9.420	99	0.009	S
2	Residency	1.59 ±0.700	1.027	99	0.418	N.S
3	Educational Level	4.70 ± 2.067	1.555	99	0.159	N.S
4	Occupation	1.56 ± 0.795	1.312	99	0.254	N.S
5	Monthly Income	2.08 ± 0.709	1.292	99	0.263	N.S

$\bar{x} \mp S.D.\bar{x} \mp S.D.$=Arithmetic Mean ($\bar{x}$)$\bar{x}$) and Std. Dev. (S.D.), F = Fisher test, d.f = degree of freedom, P = probability value, , NS : Non Significant at P ≥ 0.05 , S : Significant at P < 0.05.

This table show statistically significances differences between demographics variables (age) while there is non-statistically significances differences between demographics variables (residency, educational level, occupation and monthly income) and incidence rate of abortion for women ,when analyzed by ANOVA .

Table (5): Statistical Associations between the Reproductive history and Abortion:

No	Incidence Rate	Statistics				
		Mean±S.D.	F	d.f	P. value	Sig
1	Number of Pregnancies	3.09± 1.525	1.614	99	0.023	S
2	Number of Previous Births	1.82 ±1.783	103.795	99	0.003	S
3	Number of Times Abortion occurs	1.49 ± 0.732	6.544	99	0.001	S
4	What Point did abortion occur	1.45 ± 0.642	2.959	99	0.030	S
5	Types of Abortion	1.56 ± 0.499	1.292	99	0.008	S

$\bar{x} \mp$ S. D.$\bar{x} \mp$ S. D.=Arithmetic Mean ($\bar{x}$)$\bar{x}$) and Std. Dev. (S.D.), F = Fisher test, d.f = degree of freedom, P = probability value, , NS : Non Significant at P ≥ 0.05 , S : Significant at P < 0.05.

This table show statistically significances differences between all obstetric history of women that were attending maternal and pediatric hospital and the incidence rate of abortion for women ,when analyzed by ANOVA .

Discussion

Table (1) shows that the age means are (19.1± 0.805) , the most of the study sample is within the age group of (26-35) years-old, This finding is agree with the result Alemayehu et.al., (2019) in his study "Magnitude and associated factors of repeat induced abortion among reproductive age group women who seeks abortion Care Services at Marie Stops International Ethiopia Clinics in Addis Ababa, Ethiopia" in which the study concluded repeat induced abortion was linked to the age groups (20–24), (25–29), and (30–34).

Table (1) indicates the majority reported they live in urban region (54%) . This result is disagree with the result of Zheng et.al.,(2017) in their study "Factors associated with spontaneous abortion: a cross-sectional study of Chinese populations" Most research samples were discovered by rural residents.

table (1) shows (24%) of the study sample has Middle school. The result of present study is agree with the results of Moradinazar et.al., (2020) of his study "Lifetime Prevalence of Abortion and Risk Factors in Women: Evidence from a Cohort Study" Women with a secondary education have a higher rate of abortion.

Regarding to the mother occupation, the present study finding the majority study sample are housewives. This result is agree by the result Fadhil & Rabe'a (2013) in his study "Effects of Spontaneous Abortion on Women's Psychological Domain of Quality of Life" Which finding of (80%) housewives.

Regarding to the family monthly income, most of the study sample has barely sufficient. This result is support with the result of Kim et.al., (2018) in title of his studies "Socioeconomic status can affect pregnancy outcomes and complications, even with a universal healthcare system" One of the most important factors influencing

medical outcomes is socioeconomic status (SES).

Table (2) shows regarding to number of pregnancies of women in this study the majority of study sample (28%) were fifth and more, This result of present study is agree with the results of Hu et.al.,(2018) in his study "Reproductive Factors and Risk of Spontaneous Abortion in the Jinchang Cohort", Female reproductive status was associated with an increased risk of spontaneous abortion in this cohort.

Study the majority of study sample (31%) zero number of previous birth, this result is Agree by the result of Fadhil, (2015) in his study "Effects of Spontaneous Abortion upon Women's Physical and Spiritual Status" The reproductive details showed that (66%) of women were primi and multi gravida, (25%) of women had at least 2 previous births, and (52.5%) had had at least 1 abortion.

The number of times abortion occurs of women in this study the majority of study sample (63%) once times of abortion occur, This result is disagree by Magnus et.al., (2019) in his study "Role of maternal age and pregnancy history in risk of miscarriage: prospective register based study" Where most of the sample have previous abortions.

Regarding to the point of abortion occurs of women in this study the majority of study sample (63%) at first semester of pregnancies, this result is agree by the result of Upadhyay et.al., (2015) in his title of study "The effect of abortion on having and achieving aspirational one-year plans" The finding show the 1.3% (n=438) for first-trimester aspiration abortion.

This table (4) show statistically significances differences between demographics variables (age) while there is non-statistically significances differences between demographics variables (residency , educational level, occupation and monthly income) and incidence rate of abortion for women ,when analyzed by ANOVA , There is Associations of the Study Sample between the age of Maternity and Incidence Rate of Abortion Significant at $P < 0.05$, This result agree with the result Azo & Akbay, (2016) in his study "Prevalence and risk factors of abortion among a sample of married women in Kurdistan Region of Iraq" There is a substantial link between abortion and maternal age, education, socioeconomic status (excluding middle class), marital age, the number of live children, and governorate (Duhok). There was no connection between abortion and where you work, what you do for a living, what sort of marriage you have, or what governorate you live in (Suleymaniye).

This table (5) show statistically significances differences between all obstetric history of women that were attending maternity hospital and incidence rate of abortion for women , Significant at $P < 0.05$. The result of present study is agree with the results of Hu et.al.,(2018) in his study "Reproductive Factors and Risk of Spontaneous Abortion in the Jinchang Cohort", In this cohort, female reproductive status was linked to a higher risk of spontaneous abortion.

Conclusions

The study concluded that the Incidence Rate of Abortions in Women in this study was 0.8%, and statistically significant relationship between abortion and maternal age, Reproductive History of Maternity, There was no significant relationship between abortion and residence, education level and socio-economic levels. level of mean score in the number of pregnancies were fifth while the number of previous births of women in the study was not effect in the study but the majority numbers of times at of abortion was once time occur , the majority of the study sample was at first semester of pregnancy and also the majority of the study sample types of abortion were with surgical interference.

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Conflict of Interest: None to declare.

Ethical Clearance: "All experimental protocols were approved under the AL Diwaniyah Health Directorate were carried out in accordance with approved guidelines".

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