Prevalence and Risk Factors for Patients Undergoing Abortion In Zagazig University Hospitals

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Abstract:

Background: Abortion is a public health concern because of its impact on maternal morbidity and mortality. Each year, about 79 million unintended pregnancies, excluding miscarriage, occur worldwide. More than half of these unintended pregnancies end in abortion. The **aims** of the present study were to; assess the prevalence, risk factors associated with abortion in Zagazig university hospitals. A cross sectional **design** with nested case control **design** were selected in carrying out this study and representative samples of 800 women (400 aborted women and 400 non aborted women) were recruited for this study. **The tools** used for data collection were; an interview questionnaire sheet, clinical assessment form. **The results were**; the prevalence of abortion as estimated from the registries of Zagazig University Hospital was 25.0 % during the period from August 2010 till July 2011. Risk factors for abortion include; women's age, consanguinity, education, job status, exposure to pesticide, passive smoking, coffee intake and previous abortion as well as unwanted the current pregnancy. Eleven women were exposed to illegal and unsafe abortion and use misoprostol to induce abortion. **It can be concluded that,** the prevalence of abortion was 25.0 % during the period from August 2010 till July 2011. Risk factors for abortion include; unhealthy life style, pregnancy complications and history of previous abortion. **The study recommended that;** relevant nursing curricula must entail a detailed portion about abortion, management and post abortal hygiene. And nursing role for women underwent abortion should be recommended in maternity hospital protocols.

Key words: Abortion, Prevalence, Risk Factors, Patients, Zagazig University Hospitals

Introduction:

Abortion is defined as an attempt of the gravid uterus to get rid of its contents before fetal viability (before 28 weeks). Viability is a reasonable chance of subsequent survival; it varies between different countries and different centers, from 20-28 weeks gestation **(Cunningham et al., 2010).**

Spontaneous abortion occurs in an estimated 5-15% of pregnancies. Globally, abortion mortality accounts for at least 13% of all maternal mortality (**Shah & Ahman, 2009, & Culwell et al., 2010).** In Egypt abortion is a sensitive women's health issue, it accounts for 4.5% of all maternal deaths, and 6.4% of direct obstetric deaths **(National Maternal Mortality Study, 2004).**

Chromosomal defects are commonly seen in spontaneous abortion, especially those that occur during 4-8 weeks' gestation. Genetic etiologies are common in early first-trimester loss but may be seen throughout gestation. Trisomy chromosomes are the most common chromosomal anomaly. Insufficient or excessive hormonal levels usually result in spontaneous miscarriage before 10 weeks' gestation. Infectious, immunologic, and environmental factors are generally seen in first-trimester pregnancy loss. Anatomic

factors are usually associated with second-trimester loss. Factor XIII deficiency and a complete or partial deficiency of fibrinogen are associated with recurrent spontaneous abortion **(Festin, Limson & Maruo, 2011).**

The risk of spontaneous abortion increases with parity as well as with maternal and paternal age. The frequency of abortion increases from 12 percent in women younger than 20 years to 26 percent in those older than 40 years. In addition, if a woman conceives within three months following a term birth the incidence of abortion increases **(Trupin, 2011).**

Tobacco increase the risk for euploid abortion, more than 14 cigarettes a day will make the risk twofold greater **(Rasch et al., 2003)**. Spontaneous abortion & fetal anomalies may also result from frequent alcohol use during the first 8 weeks of pregnancy, drinking twice a week may double the abortion rates and drinking daily may triple the abortion rates **(Kesmodel et al., 2002).** As for caffeine at least 5 cups of coffee per day may slightly increased risk of abortion **(Cnattingius et al., 2000).**

Radiation, in sufficient doses are abortifacient and when intrauterine devices fail to prevent pregnancy they may cause abortion **(Lindbohm, Sallmen & Taskinen, 2002).**

The risk of abortion during a given pregnancy was found to increase directly with the number of previous abortion, advancing maternal age, smoking, using illicit drugs, exposure to certain environmental toxins or infections as well as chronic maternal illness **(Lowdermilk & Perry, 2007).**

Significance of the study:

Miscarriage occurs in about 15-20% of all recognized pregnancies, and usually occurs before the 13th week of pregnancy. The actual percentage of miscarriages is estimated to be as high as 50% of all pregnancies, since many miscarriages occur without the woman ever having known she was pregnant **(Williams & Mitchell, 2007).**

The problem of abortion remains under appreciated by both health care providers and public research (**Green & Wilkinson, 2004).** A few studies have focused specifically on post abortion care & complications and no recent study was done to address this problem in Zagazig. Maternity nurse is the person to whom the aborted women turns when she wants to express her feelings, thoughts, fears and hopes.

Maternity nurse as a health provider and counselor can play a crucial role in the assessment, planning and implementation of the necessary nursing intervention before, during and after abortion according to women's, risk factors, needs and concerns (**Bevis, 2008).**

Aim of the study:

- Determine the prevalence of abortion in Zagazig University Hospitals.
- Determine risk factors associated with abortion in Zagazig University Hospitals

Research questions:

- What is the prevalence of abortion in Zagazig University Hospitals?
- What are the risk factors associated with abortion?

Subjects and methods:

Research Design:

A cross sectional design with nested case control design was used to investigate the current research problem.

Setting:

In the Obstetrics and Gynecological Department at Zagazig University Hospitals through a period of one year, this started from the first of August 2010 to the end of July 2011.

Sample:

Regarding the estimation of the prevalence of abortion:

All the cases of abortion and normal deliveries attending the Obstetrics and Gynecological Department in Zagazig University Hospitals were included in the study through a period of one year, which started from the first of August 2010 to the end of July 2011.

As for case control study: Assuming the prevalence of abortion among the pregnancies = 20 % **(World Health Organization, 2008).** Using a power of 90 %, $\alpha = 0.05$ and odds ratio (O R) worth detecting = 2, the minimal required sample size was found to be 800, 400 cases (abortion) & 400 controls (normal labor). The sample was selected randomly using simple random sample if fulfilling the inclusion criteria.

Case inclusion criteria*:*

- Age of patients up to 40 years.
- Gestational age ≤28 weeks
- Have a definite specific diagnosis of abortion.

Exclusion criteria:

The presence of any of the following causes of bleeding disqualified the subject from inclusion:

- Ectopic pregnancy
- Vesicular mole
- Uterine bleeding due to other causes

Control group:

Subjects selected for the control group were admitted at the same time and place for normal delivery. They were exactly similar to women in the group of cases, with the only difference, the presence of abortion in these latter.

Sample procedure:

All pregnant women attending the Obstetric department at Zagazig University hospitals during the study period for one year were reviewed to identify the prevalence of abortion. 400 pregnant from those undergoing abortion were selected as cases randomly if fulfilling the inclusion criteria with an equal number of women with normal delivery were selected randomly as controls to identify the risk factors of abortion .

Tools of data collection:

Two tools were used

1. **An interview questionnaire form**: was used to collect relevant data to the topic of the study. The patients and controls were submitted to such an interview.

Interview questionnaire:

A. Personal data: These include the following variables

- **General data**: Age, income, educational level, consanguinity of the couples, residence and age at marriage.
- **Data for job status:** daily working hours, being exposed to a hard physical work, occupational exposure to radiation, heavy metals or other environmental hazards.
- **Lifestyle and personal habits**: hours of sleep per day, drinking tea or coffee, smoking, and share in antenatal care program.

B. Obstetrical history: It included the following variables: Gravidity and parity, number of previous abortion, birth interval and previous mode of delivery.

C. Medical history: It included data indicating the presence or absence of the following diseases: anemia, heart disease, hypertension, pre-eclampsia, gestational diabetes, infection and RH incompatibility.

D. Contraceptive history: It included data about the previous use of family planning methods, the type of these methods and the duration of its use.

2. **Physical assessment sheet:** Both general and local physical examinations were done for the cases and controls. Also, pelvi-abdominal ultra-sonography

examination was done for both groups to estimate gestational age. The clinical diagnosis of abortion, causes, investigations required and treatment were all recorded by the researcher.

Field work:

Concerning the estimation of the prevalence of abortion, hospital records during the period started from the first of August 2010 to the end of July 2011, were reviewed by the researcher. The total number of admission to labor and abortion was obtained, and the percentage of each one separately was estimated.

Patients with abortion (400) who met the criteria for inclusion and exclusion from the study were recruited as the study group where every woman was individually interviewed on admission to the gynecological department to collect the basic and clinical data. The time taken for the questionnaire to be completed was 25-30 minutes depending upon the physical and psychological condition of each interviewer. Care was given by the researcher pre, during and after abortion

Pilot study:

It was carried out on a sample of 20 patients and 20 controls. These were not included in the main study sample. It was conducted to test the feasibility and applicability of the study, and to assess the clarity and completeness of tools. Based on the findings of the pilot study, tools were reviewed and some questions were clarified.

Administrative and Ethical Considerations:

An official permission was taken from authorized personal in the Obstetrics and Gynecology department at Zagazig University hospitals. The purpose of the study and procedures to be performed were explained to the patients and controls, and oral consent to participate in the study was taken accordingly. All patients were managed properly before and after abortion. Risk factors encountered was discussed with every woman.

Statistical Design:

An IBM compatible personal computer was used to store and analyze data and to produce graphic presentation for some important results statistical package for the social science (SPSS) version 14 was used for statistic analysis of data as it contains the test of significant given in standard statistic books.

Results:

Figure (1) illustrates prevalence of abortion in Zagazig University Hospitals during the period started from August 2010 and ended in July 2011. Thus the prevalence of abortion during such period was one quarter (25.0 %), compared to 75.0 % who had normal labor.

Table (1) indicates that women with abortion were more likely to be less than 25 (36.3%) and more than 35 years old (30.0%). They were also significantly more likely to have consanguineous relation with their husband (51.7%), being illiterate (46.7%) and were working (18.3%).

Table (2) demonstrates that women with abortion shows higher percent of exposure to pesticides (3.0%)، passive smoking (39.5%), and drink coffee (28.7%). The difference observed was statistically significant (P=0.000).

Table (3) shows that women in the abortion group were significantly more likely to have previous history of abortion (43.4%), R H incompatibility (5.0%) and higher proportion of unwanted pregnancy (18.7%).

Table (4) and **figure (2)** reveals that the majority of abortion was inevitable (57.8%) either complete or

incomplete (7.3% or 50.5% respectively). While more than one third (37.7%) of abortions were missed, and 4.5% were induced.

Concerning the characteristics of the induced abortion, **table (5)** and **figure (3)** show that 18 (4.5%) of the aborted women had induced abortion. Of those the majority (61.1%) had unwanted pregnancy. The intake of pharmacological drugs such as "Misoprostal" was reported by almost two thirds of women (61.1%). Meanwhile, more than one tenth inserts the IUD or foreign bodies to induce abortion (16.6% and 11.1% respectively).

Discussion:

The prevalence of abortion as estimated from the registries of Zagazig University Hospital was 25.0 % during the period from August 2010 till July 2011. In agreement with this finding, **Rozsa et al., (2003)** study in Hungary have reported that, the prevalence of abortion in the female sample examined was 22.0 %.

A similar result was also observed by **Jones** and **Kooistra (2011)** who did investigate abortion incidence and access to services in the United States. They reported that, 22.0% of all pregnancies (excluding miscarriages) end in abortion, and less than 0.3 percent of aborted patients experience a complication that requires hospitalization.

Conversely, **Agnes (2004)** revealed that the occurrence of abortion (spontaneous or induced) is 45.7%. These rates were 9.4% and 33.9% for induced and spontaneous abortions, respectively. While, in rural upper Egypt, the lifetime prevalence of abortion is reported to be 40.6% **Yassin (2000).** The discrepancies between the present study finding and the previous results might be attributed to the low sample size of this age group in the present study, which can affect the representatives of this group.

Regarding socio-demographic data, the present study showed that the two groups were almost similar in their mean age which was less than 30 years and the difference observed was not statistically significant. However, aborted women were more likely to be less than 25 and more than 35 years old. This finding is in congruence with **Rochebrochard** and **Thonneau (2002)** in European countries who has found that, the risk of miscarriage was higher if the woman was aged ≥35. Additionally, **Rischi et al., (2009)** have reported that the risk of fetal loss increases steeply after the age of 35 years, rising from 9.0% at 20– 24 years to 75.0% at 40 years and older.

Meanwhile, **Mazieh (2006)** shows increasing risk of abortion with increasing age in women. This result has been observed by several authors **Fretts et al., (2003) and Nybo et al., (2006).** In the contrary, the study of **Aderibigbe et al., (2011)** in North Central, Nigeria revealed that the majority of aborted women were 16 – 17 years, where there are more fertile years and more number of abortions. The observed association could be a result of age-related changes such as increased conceptions that are chromosomally abnormal or decreasing uterine and hormonal function.

The results of this study revealed a statically higher percentage of consanguineous couples among the aborted group as compared to the normal group. This may be attributed to the fact that most frequent cause of abortion in the first trimester of pregnancy is immunologic factors, by which the mother and father are genetically similar, with major antigens that cause the maternal

immune system to reject the embryo **(Saltenberger, 2010).**This finding is also supported by the finding of **Hussain (2012)** in his study about, the role of consanguinity and inbreeding as a determinant of spontaneous abortion in Karachi, Pakistan.

Studies on the effects of pesticide exposure in residential settings show reproductive effects (in particular spontaneous abortion), especially when exposures occurred in the early stages of gestation **(Kristense, 2004).** This is supported by the findings of the present study, where more aborted women were exposed to the risk of pesticide. Despite some uncertainties in the evidence base, it may still be prudent to advise that couples work in agriculture or horticultural trades against lead and pesticide exposure at the workplace for couples trying to conceive **Snijder et al., (2012).**

On query about aborted women life style; specifically, smoking and coffee in the present study, it was observed that aborted women were significantly more likely to be exposed to passive smoking .This is in coherence with the study of **Atlanta (2006)** who has similarly reported that, there was 2-fold risk of abortion in women who consumed high levels of caffeine, as well as smokers or being exposed to second hand smoke.

Each year, about 79 million unintended pregnancies, excluding miscarriage, occur worldwide. More than half of these unintended pregnancies end in abortion **Van Look** and **von Hertzen** (**2011).** This is supported by the findings of the present study, where aborted women were more likely to have unintended pregnancy as well as induced abortion. In this respect **Henshaw (2006)** mentioned that every year some 36-53 million unwanted pregnancies are terminated either legally or clandestinely by induced abortion throughout the world.

The problem is further intensified by the fact that more than three fifth of the aborted women use pharmacological drugs (misoprostol) as abortifacient. This is higher than the rate reported by **Jones et al., (2008)** in United States. This extremely high rate may reflect ethnic differences or may be due to selection bias because these women were responding to an offer of a free pharmaceutical preparation.

Conclusion:

Based on the findings of the present study, it can be concluded that, the prevalence of abortion as estimated from the registries of Zagazig University Hospital, was 25.0% during the period from August 2010 till July 2011. Women with abortion were more likely to be less than 25 and more than 35 years old compared with normal.

Risk factors for abortion include; consanguinity, education, job status, exposure to pesticide, passive smoking, coffee intake and previous abortion as well as unwanted the current pregnancy. Eleven women were exposed to illegal and unsafe abortion and use misoprostol to induce abortion.

Recommendation:

Based on the foregoing study results, the following recommendations are suggested:

- Nurse midwives should advise women and employee to avoid exposure to the well- known risk factors of abortion and provide more insight into the magnitude of exposures responsible for detrimental effects.
- Pregnant women should be given an explicit advice concerning healthy life style, exposure to passive smoking and the excessive intake of caffeine as well as the dangers of unsafe abortion. They

should have more access to safe contraception and more effective education services. This will also reduce the costs of abortion and improve sexual health.

- Nursing role for women underwent abortion should be recommended in maternity hospital protocols.

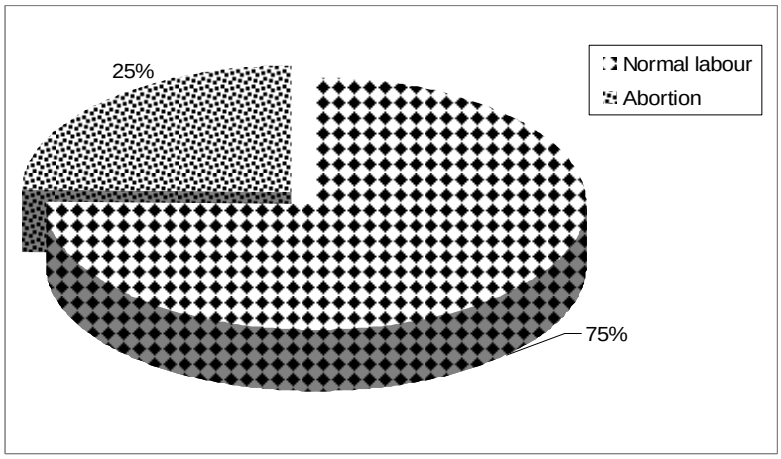

Figure (1): prevelance of abortion in Zagazig University Hospitals

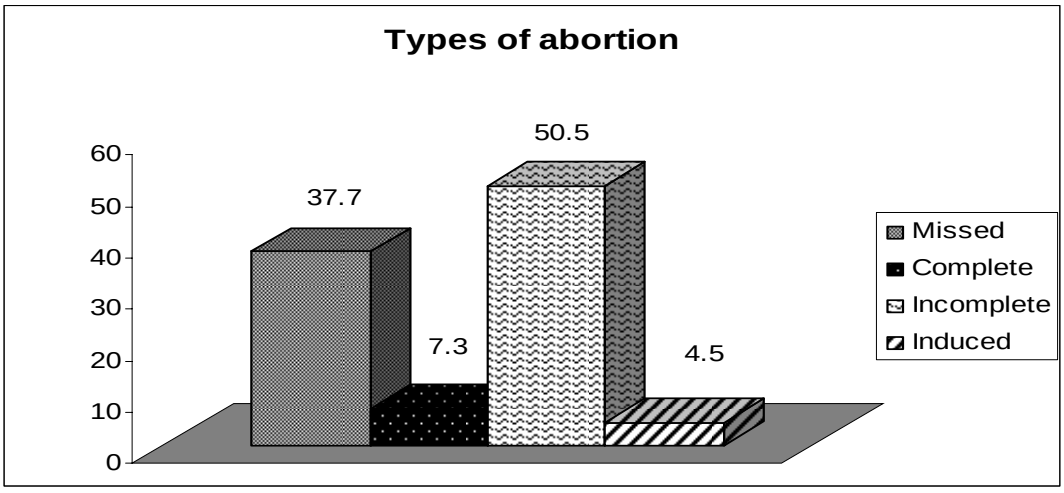

Figure (2): Types or clinical diagnosis of abortion

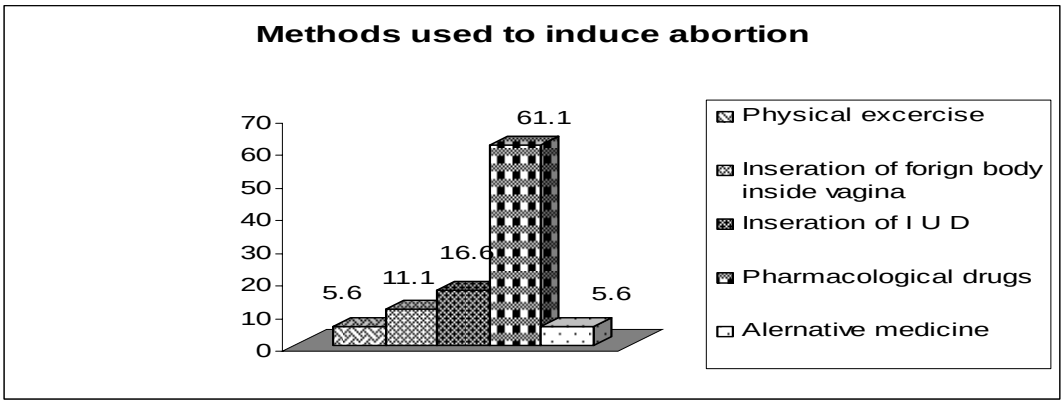

Figure (3): Methods used to induce abortion

Table (1): The socio-demographic characteristics of women with and without abortion in the study groups

Characteristics	Group				Significance test	P-value
	Study (n=400)		Control (n= 400)			
	No.	%	No.	%		
Age (years) :						
< 25	145	36.3	131	32.7		
25-	135	33.7	200	50.0		
35+	120	30.0	69	17.3		
Mean ± SD	28.8 ±7.8		28 ± 5.9		T =1.52	0.127
Consanguinity of the couple:						
No	193	48.3	261	65.3		
Yes	207	51.7	139	34.7		
Education :						
Illiterate	187	46.7	72	18.0		
Read & write	25	6.3	33	8.3		
Primary	17	4.3	50	12.5	X^2 = 81.602	
Secondary	117	29.3	166	41.5		0.000*$
University or higher	54	13.4	79	19.7		
Job status :						
House wife	32	81.7	371	92.7	X^2=21.75	0.000*$
Employee	73	18.3	29	7.3		

(*)p≤ 0.05(statistically significant) ($)P-value based on Pearson Chi-Square test(X^2)

Table (2): Comparison of the environmental risk factors, personal habits and lifestyle among women with and without abortion

Characteristics	Study (n=400)		Control (n= 400)		Significance test	P-value
	No	%	No	%		
Environment exposure to pesticides: No	388	97.0	397	99.3	Fisher's exact	0.037*^
Yes	12	3.0	3	0.7		
Smoking :						
No	384	96.0	394	98.5	X^2=4.67	0.031*$
Yes	16	4.0	6	1.5		
Passive smoking :						
No	242	60.5	316	79.0	X^2=32.44	0.000*$
Yes	158	39.5	84	21.0		
Drinking coffee:					X^2=17.9	0.000*$
No	285	71.3	335	83.7		
Yes	115	28.7	65	16.3		

(*) p ≤ 0.05 (statistically significant) *(Z^c) P- value based on Mann- Whitney Test*

Table (3): Comparison of obstetric, complications of the present pregnancy, and family planning history of women with and without abortion

Characteristics	Group				Significance Test	P-value
	Study (n=400)		Control (n= 400)			
Previous abortion	**(n= 304)**		**(n=334)**			
None	172	56.6	204	61.1	------	------
1-2	110	36.2	127	38.0		
3+	22	7.2	3	0.9		
Median (Min – Max)	0.00 (0 -5)		0.00 (0 - 3)		Z^c= 2.22	0.026*
R H incompatibility (n=400)	20	5.0	8	2.0	5.32	0.021*$
Desire regarding pregnancy:	**(n=400)**		**(n=400)**		5.42	0.020*$
Wanted pregnancy to continue	325	81.3	349	87.3		
Unwanted pregnancy to continue	75	18.7	51	12.7		

(*) p ≤ 0.05 (statistically significant) *(Z^c) P- value based on Mann- Whitney Test*

Table (4): Distribution of the aborted group according to gestational age and types of abortion (n=400)

Characteristics	No.	%
Gestational age (weeks) (n = 400)		
4-	46	11.5
8-	132	33.0
12-	104	26.0
16-22	118	29.5
Mean ± SD	12.9 ± 5.1	
Types or clinical diagnosis of abortion (n = 400)		
Missed	151	37.7
Complete	29	7.3
Incomplete	202	50.5
Induced	18	4.5

Table (5): Distribution of the aborted group according to characteristics of induced abortion

Characteristics	No.	%
In induced abortion the cause is: (n =18)		
Therapeutic causes	7	38.9
Un wanted (illegal)	11	61.1
Methods used to induce abortion : (n =18)		
Physical exercise	1	5.6
Insertion of foreign body inside vagina	2	11.1
Insertion of IUD	3	16.6
Pharmacological drugs such as " Misoprostal	11	61.1
Alternative medicine	1	5.6

References:

- **Aderibigbe S. A., Araoye A.O., Akande T.M., Musa O.I., Monehin J.O. & Babatunde O.A. (2011):** Teenage pregnancy and prevalence of abortion among in-school adolescents in North Central, Nigeria**.** Canadian Center of Science and Education. Vol. (7), No. (1); January 2011, p.126.
- **Agnes J. (2004):** Assessing the prevalence and determinants of unwanted pregnancy and induced abortion in Nigeria. Available from: URL: Available at website: www.highbeam.com. Last accessed at July 10,2004
- **Atlanta G.A .(2006):** The health consequences of involuntary exposure to tobacco smoke : A report of the surgeon general: HS, CDC, coordinating center for health promotion, national center for chronic disease prevention and health promotion, office on smoking and health.
- **Bevis R. (2008):** Caring for Women: Obstetric and Gynecological Nursing. 9th ed., London: Educational Low – priced Book Scheme. p. 160
- **Cnattingius S., Signorello L.B. Anneren G. Anthony B. & Iller A. B. (2000):** Caffeine intake and the risk of first-trimester spontaneous abortion. N Engl JMed 343:1839.
- **Culwell K. R., Vekemans M. de.,Silva U. & Hurwitz M . (2010):** Critical gaps in universal access to reproductive health: Contraception

and prevention of unsafe abortion". International Journal of Gynecology &Obstetrics;110:S13

- **Cunningham F. G., Leveno K.J., Bloom S.L., Rouse D.J. & pong C.Y. (2010):** Williams Obstetrics .Abortion. 23rd ed., New York: McGraw-Hill Companies, pp.215.
- **Festin M. R. Limson G. M. & Maruo T. (2011):** An abortion. Causes of pregnancy loss. Kobe. J. Med. Science ; 88 (5) : 210
- **Fretts R.C., Schmittdiel J. McLean F.H., Usher R.H. & Goldman .B. (2003):** Increased maternal age ad the risk of fetal death. N Engl J Med. 333: 953 – 957.
- **Green C. J. & Wilkinson J. M. (2004):** Maternal Newborn Nursing Care Plans. Abortion. 1 st ed., United States of America: Mosby Co., p. 293
- **Henshaw S.K (2006):** Unintended pregnancy and abortion: a public health perspective .In**:** Paul M, Stubblefield PG, Grimes DA; 22:76-89.
- **Hussain R. (2012): The** role of consanguinity and inbreeding as a determinant of spontaneous abortion in Karachi, Pakistan. Annals of Human Genetics, 62: 147–157.
- **Jones R.K. & Kooistra K. (2011):** Abortion incidence and access to services in the United States, Perspectives on Sexual and Reproductive Health, 2011, (1):41–50.
- **Jones R.K. Johnston M. Kooistra K. & Poirier S. (2008):** Abortion in the United States: incidence and access to services, perspectives on sexual and reproductive health, 40(1):6–16.
- **Kesmodel U., Wisborg K. Olsen S.F.** Beckmann M. Charles R. B.; Herbert, William G. : **(2002):** Moderate alcohol intake in pregnancy and the risk of spontaneous abortion. Alcohol 37:87
- **Kristensen P. (2004):** Pesticides and reproduction. Epidemiology; 10:103-104
- **Lindbohm M.L. Sallmen M. &Taskinen H. (2002):** Effects of Exposure to Environmental Tobacco Smoke and exposure to radiation on Reproductive Health. Scand J Work Environ Health; 28 (suppl 2)**:** 84–96.
- **Lowdermilk D. L. & Perry S. E. (2007):** Maternity & Women's Health Care. Women's Health, Risk Factors of abortion .9th ed., China: Mosby Elesiver Co., p. 228.
- **Mazieh M. (2006):** Maternal age and miscarriage. Journal of Midwifery& Women's Health, Volume (53), No. (2): 11–17.
- **National Maternal Mortality Study (N MMS) (2004):** Ministry Health and Population. Egypt, John Snow, Inc. PP. 51 – 53.
- **Rasch V. & Wisborg R. Singh S., Romero M., Ganatra B. (2003):** Cigarette, alcohol, and caffeine consumption: Risk factors for spontaneous abortion. Acta Obstet Gynecol Scand 82:182
- R**ischi H.A., Weissn S. E., Alleen-Clarke E. A., Anthony B. & miller A. B. (2009):** Risk factors for spontaneous abortion and its recurrence . American Journal of Epidemiology Vol. 128, No. 2: 420-430.
- **Rochebrochard E. & Thonneau P. (2002):** Paternal age and maternal age are risk factors for miscarriage; results of a multicentre European study. European Society of Human Reproduction and Embryology.Vol. (17), No. (6) pp. 1649–1656
- **Rozsa S., Réthelyi J., Stauder A., Susanszky E. , Mészaros E., Skrabski A.& Kopp M. (2003):** The methodology of the Hungaro study 2002 national representative study and the psychometric characteristics of the test battery used. Psychiatria Hungarica 18 (2): 83-94.
- **Saltenberger A. (2010):** Early pregnancy loss. Every woman has a right to know the dangers of legal abortion. p. 19.
- **Shah I. & Ahman E. (2009):** "Unsafe abortion: global and regional incidence, trends, consequences, and challenges". J Obstet Gynaecol Can ; 31 (12): 1149–58. PMID 20085681
- **Snijder C.A., Velde E. Roeleveld N.I. & Burdorf A. (2012):**

Occupational exposure to chemical substances and time to pregnancy: a systematic review. Oxford Journals Medicine Human Reproduction Update Volume 18, Issue 3 Pp. 284-300.

- **Trupin S. R. (2011):** Women's Health Practice. Illinois: Champaign; CEO and Owner, Hada Cosmetic Medicine and Midwest Surgical Center. Available at: http://emedicine.medscape.com/article/252560. retrieved at 4/3/2011
- **Van Look P.F. & von Hertzen H. (2011):** Special programme of research, development and research training in human reproduction, world health organization, Geneva 27, Switzerland Curr. Obstet. Gynaecol ; 3:2-10
- **Williams J & Mitchell M (2007):** Midwifery manager's views about pregnancy loss. The maternity services. Therapies in Clinical Practice, 13(2), pp 129-135.
- **Yassin K.M. (2000):** Incidence and socioeconomic determinants of abortion in rural Upper Egypt. Public Health. 2000; 4: 269 – 272

نسبة الانتشار والعوامل الخطرة لدى المريضات اللاتى يعانين من الاجهاض فى مستشفيات جامعة الزقازيق

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مقدمـة:

الإجهاض هو مصدر قلق للصحة العامة لتـأثيرة على أمراض ووفيات الأمهات، فكل عام يحـدث تقريبا ٧٩ مليون حمل غير مرغوب فيه علـى مستوى العالم وأكثر من نصف هذا الحمل الغيـر مرغوب فيه ينتهى بالأجهاض.

الهدف من هذا البحث :

الهدف من هذه الدراسة هى معرفة نسبة انتـشار وعوامل الخطورة التي يمكـن أن تـؤدي إلـي الإجهاض فى مستشفيات جامعة الزقازيق.

طرق وأدوات البحث:

تصميم البحث:

لقد استخدمت دراسة مقطعية لجمع المعلومـات عن نسبة انتشار الاجهاض ودراسـة المجموعـة المقارنة بين مجموعتين لجمع المعلومـات عـن عوامل الخطورة التـي يمكـن أن تـؤدي إلـي الأجهاض.

مكان الدراسة:

تم اجراء الدراسة فـي قـسم النـساء والتوليـد بمستشفيات جامعه الزقازيق.

عينة البحث:

شملت عينة الدراسـة كـل الـسيدات الحوامـل المترددات علي قسم النساء والتوليد بمستـشفيات جامعه الزقازيق أثناء فتره الدراسة لمعرفة نسبة انتشار الإجهاض .

كما تضمن البحث ٤٠٠ سـيدة يعـانين مـن الإجهاض تم اختيارهن عشوائيا من المتـرددات علي قسم النساء والتوليد بمستـشفيات جامعـة الزقازيق و أيضا ٤٠٠ سيدة حامل أكملت حملهـا بطريقه طبيعية وتمت الولادة كذلك بطريقة طبيعية في نفس المكان ونفس الفترة.

وقد تم اختيارهن عـشوائيا لمعرفـة عواملـ الخطورة التي يمكن أن تودي الي الإجهاض.

أدوات جمع البيانات :

- استمارة استبيان لتجميع بيانات عن السيدات مثل البيانات الديموجرافية وتـاريخ حملهـن وتاريخهن المرضى وكذلك أسلوب معيشتهن.
- اسـتمارة فحـص الـسيدة عنـد الـدخول: الفحوصات العامة والفحوصات الجـسمانية والفحص بالموجات الفـوق صـوتية علـى الرحم لكلتا المجمـوعتين لحـساب العمـر الجنينى، التـشخيص الطبـى للأجهـاض، الأسباب، التحاليـل المطلوبـة والعـلاج ، بالأضافة إلى علامات الأنذار عنـد دخـول المريضة.

النتائج: وقد أسفرت نتائج البحث عن التالى:

- وجد أن نسبه حدوث الإجهاض هى٢٥,٠ % بالمقارنة بالولادة (٧٥,٠%).
- عمر السيدات يتراوح مابين ١٨-٤٠سـنة، متوسط أعمارهن ٢٨,٨ ±٧,٨ فى مجموعة الإجهاض و٢٨ ±٩,٥ فى مجموعة الولادة وكان تقريباً ثلثى حالات الإجهـاض لـديها دخل غير كافى (٦٦,٣%) ويوجـد صـلة قرابة بيـنهم وبـين أزواجهـن (٥١,٧%) بالمقارنة بالولادة. أكثرمن نـصف العينـة (٥٧%) فى مجموعة الإجهـاض ريفيـات، أميات و يستطيعن القراءة والكتابة (٥٣%).
- السيدات العاملات أكثـر عرضـة لحـدوث الإجهاض التلقائي حيث يعملـن أكثـر مـن ثمانى ساعات باليوم يتعرضن للعمل العنيف سواء خارج المنزل أو بداخلـه، بالمقارنـة بالولادة.
- متوسط ساعات النوم فـى الـسيدات فـى مجموعة الإجهاض أقل ويتعرضـن لنـسبة عالية من التدخين السلبى. بالأضافة لـذلك، فهم أكثر تناولا للشاى أو القهوة باكثر مـن فنجانين يوميا. بالأضافة لذلك فهـم أكثـر اهمالا لمتابعة الحمل قبل الولادة (٢٨,٦%) بالمقارنة بالولادة الطبيعية (٦٩,٣%).

- كان ربع السيدات تقريبـا فـي مجموعـة الإجهاض (٢٤%) بكريات ، وأكثر حـدوثا لحالات الأجهاض ولديهن إجهـاض سـابق (٤٣,٤%) وقـصر الفتـرة بـين الـولادة وبعضها (٦١,٨%). ووجـد أن خمـسى مجموعة الإجهاض (٣٩,٨%) لـديهن ولادة قيصرية سابقة وأكثر مضاعفات فى الحمـل الحالى(٤٢,٨%) ونسبه عدم توافق فى عامل ريسيس .
- السيدات فى مجموعة الإجهاض لديهن نسبة أكبرفى الحمل الغير مرغوب فيـه(٠,٠٢٠) بالمقارنة بالولادة الطبيعية.
- تقريباً ثلـث حـالات الإجهـاض العفـوي (٣٣%) قد حدثت بين الأسبوع الثامن وأقـل من الأسبوع الثانى عشر. وكان الإجهـاض المحتم هو أكثر أنواع الإجهاض(٥٧,٨%)، اما الكامل أو غير كامل فكانـت ٧,٣% أو ٥٠,٥% على التوالى بينما أكثر من الثلـث (٣٧,٧%) كان إجهـاض مفقـود ، ٤,٥% إجهاض محرض.
- وكان الإجهاض محرضا فـي ١٨ سـيدة. الغالبية العظمى منهن لا يرغبن فى الحمـل. وقد تناولت ثلثى الـسيدات فـى مجموعـة الإجهاض المحرض عقـار الميزوبرسـتول للتخلص من الحمل . بينما أكثر من العشر قد استخدمن اللولب أو أجسام غريبة للتحريض على الإجهاض.

الخلاصة:

فى ضوء نتائج الدراسة فأنه اتـضح أن نـسبة حدوث الإجهاض العفوي كما قـدرت سـجلات مستشفيات جامعة الزقازيق ٢٥,٠% خلال الفترة من أول اغسطس٢٠١٠ إلى نهايه يوليـو٢٠١١. ومن علامـات الخطـورةالتى تحـرض علـى الإجهاض : السن، درجة القرابة، التعليم، العمل، التعرض للمبيدات، التدخين السلبى، تناول القهـوة والإجهاض السابق بالأضافة الى الرغبة الـسلبية فى الحمل الحالى. احدى عشر سـيدة تعرضـن للإجهاض الغير آمـن والغيـر مـشروع وتـم استخدامهن لعقار الميزوبروستول للتحريض على الإجهاض.

التوصيات:

وعلى ضوء نتائج الدراسة يوصى بالآتى:

- يجـب اعطـاء النـصائح للـسيدات والعاملات بعـدم التعـرض للعوامـل الخطرة التى تؤدى الى الاجهاض.
- يجب اعطاء السيدات الحوامل النصائح عن اساليب المعيشة الـصحية وعـدم التعرض للتدخين والتدخين السلبى وعدم الزيادة فى تنـاول الكـافيين و كـذلك أخطار الإجهاض الغير آمن. فيجب ان يكون لديهم أسهل الطرق للوصول الـي وسائل منع الحمـل الامنـة والمراكـز التعليميه الأكثرتاثيراً مما يقلـل تكلفـة الإجهاض ويحسن الصحة الانجابية.
- إدراج دور التمريض للسيدات اللاتـى تعرضن للإجهاض فـى بروتوكـولات المستشفى الخاصة بالولادة.