

Frequency of Spontaneous Abortions in Low Socio-Economic Women of Karachi

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ABSTRACT

Objective: To assess the frequency of abortion in women of low socioeconomic status of Karachi.

Study Design: Cross sectional study

Place and Duration of Study: This study was conducted at the four hospitals of Karachi, two from public and two semi- Government hospitals, namely Jinnah Postgraduate Medical Center, Civil Hospital, Lady Dufferin and Sobraj hospital, Karachi from February to October 2017.

Materials and Methods: A cross sectional study was conducted on a sample size of 205 women, that is n=205. The sample was taken through Non-probability purposive sampling from low socio-economic class women from different hospitals of Karachi including Jinnah Postgraduate Medical Center, Civil Hospital, Lady Dufferin and Sobraj hospital, within a period of 9 months from February to October 2017. A structured self administered questionnaire was distributed which was filled after an informed verbal consent from the women. A pilot study was conducted to assess the validity of questionnaire. Data was analyzed using SPSS version 20 with 95% confidence interval, margin of error was taken as 5% and P-value 0.05 was considered significant.

Results: A total of 205 women were interviewed through structured questionnaire. The median age of women was between 26-35 years. Family monthly income in (55.6%) was <10,000 Rs and 91 women had income between Rs.11000-17000. 154 women visited the doctor for vaginal bleeding suggesting threatened abortion (75%, p=0.037) 108 women had abnormality of aborted baby showed on Ultra Sound (52.7%, p=0.040) 78 women had infections in 1st trimester of pregnancy (38.0%, p=0.029), 70 had taken capsules (antibiotics) for infection in 1st trimester of pregnancy (34.1%, p=0.040), 64 had trauma (31.2%, p=0.003) 154 women had cervical incompetence (75%, p=0.021) and 76.6% women lifted heavy objects during pregnancy p=0.059.

Conclusion: The study concluded frequency of threatened abortion in low socioeconomic status women is high and level of awareness about the causes and risk factors of spontaneous abortion is unsatisfactory. Increased efforts are needed to help both adolescent women and adult women of low socio-economic status to avoid unwanted outcomes of pregnancy. There is a crucial need to take preventive measures in low socioeconomic class to save the health of women and children.

Key Words: Spontaneous Abortion+ infections + Cervical Incompetence + Awareness +Trauma

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INTRODUCTION

Abortion refers to expulsion of products of conception before 24th week of gestation, when the fetus weighs 500g or less.¹ An abortion that occurs naturally without any medical intervention when there is a physical problem with a pregnancy is called a spontaneous abortion². It is of 2 types:

A) Early Pregnancy Abortions B) Late Pregnancy Abortions gestation hence it is called "First Trimester Miscarriage".

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Early pregnancy abortions occur before 12th week of Late pregnancy abortions occur between 12th and 24th weeks of gestation, so also known as "Second Trimester Miscarriage". Among these two, early pregnancy abortions are more common.

The risk factors which predispose to susceptibility to abortions are poor socioeconomic status, genital tract infections, and increase maternal age, History of previous abortion or preterm birth and smoking. The most important cause of early pregnancy loss is chromosomal abnormalities. Other causes are endocrine disorders, uterine abnormalities, infections and immunological factors.³

In a population, younger maternal age was significantly and consistently associated to greater risks of fetal death and anaemia and to lower risks of adverse obstetric outcomes.⁴

According to study from Karachi 10% of maternal deaths were due to unsafe abortion. According to the study conducted in Liaquat Medical College Hospital, Hyderabad, Pakistan from January 2005 to December 2006 to find out the rate of abortion in Pakistan. Most cases of abortions occurred in women aged between 26-

35 years. The prevalence of abortion increase as the parity increases. Commonest type of abortion found was incomplete and mostly occurred at 8-12 weeks of gestation.⁵

The study tried to find out the frequency and causes of spontaneous abortions in low socio-economic women as low income group is a risk for increasing abortion, through this study we can conclude the most common causes and risk factors of abortion and what measures are to be taken to improve the abnormal pregnancy end results and awareness for preventive measures must be introduced in low socio-economic class to save the outcomes of pregnancy.

Abortion: Spontaneous abortion is defined as, clinically recognized pregnancy loss before 20th week of gestation. According to WHO, Expulsion or extraction of an embryo or fetus weighing 500gm or less is termed as 'Abortion'.

Pregnancy is a significant event in a woman's life, and emotional attachment to the pregnancy and developing baby may begin early in the first trimester. For most women, experiencing a first trimester loss is a difficult and vulnerable time. When it occurs, the grief can be as profound as for any peri-natal or other major loss. Spontaneous abortion (a pregnancy that ends spontaneously before the fetus has reached a viable gestational age) is among the most common complications of pregnancy. Approximately 12–15% of recognized pregnancies and 17–22% of all pregnancies end in spontaneous abortion.^{6,7}

The term 'miscarriage' is synonymous to spontaneous abortion which occurs spontaneously in the absence of medical or surgical measure. This is used often and the word abortion is associated with elective termination. Spontaneous pregnancy loss has been recommended to avoid term abortion and acknowledge the emotional aspect of losing a pregnancy.⁸

Risk Factors: There are certain risk factors that can potentially increase the chances of a spontaneous abortion. These include: Radiation exposure, heavy weight lifting, no visit to health professionals, recurrent infections, use of antibiotics, NSAIDS increases the risk of abortions in early pregnancy and obesity in pregnant women can have a much higher risk of miscarriage, previous miscarriage also increases the risk of subsequent abortion, Anti-depressants reported as 68% increase in the risk of miscarriage among pregnant women using Anti-depressants.^{9,10}

Rationale: The rationale is to assess the frequency of abortions in low socio-economic women of Karachi in order to increase awareness about spontaneous abortion, to increase preventive measures in low socio-economic class to save the outcomes of pregnancy with repeated abortions women lose blood and their haemoglobin level decreases and they become more prone to infections, Assessment should be done by karyotyping, uterine and ovarian assessment, anti-

cardiolipin antibodies, lupus anticoagulant, thyroid function test, screening for diabetes and endometrial biopsy. The general population should be informed about life-threatening complications of abortions like uterine infections, tears and perforations, blood clots in uterus, hemorrhage, cardiac arrest and death.

MATERIALS AND METHODS

A cross sectional study was conducted on a sample size of 205 women, n=205. The sample was taken through Non-probability purposive sampling from four (04) tertiary care hospitals, Two from Government hospitals and two from semi Government Hospitals namely; Jinnah Post Graduate Medical Center, *Civil Hospital, Lady Dufferin Hospital and Sobraj Hospital Karachi*, within a period of 9 months from February to October 2017. An informed verbal consent was taken from the women. A pilot study was conducted to assess the validity of questionnaire. A structured self administered questionnaire was distributed which was filled by women. Data was analyzed using SPSS version 20 with 95% confidence interval, margin of error was taken as 5% and P-value 0.05 was considered significant.

Selection Criteria

Inclusion Criteria: Spontaneous abortion with first live birth in women age between 15-35 belonging to low socioeconomic class income within the range of 10,000- 17,000 PKR

Exclusion Criteria: All women belonged to high socio-economic class, women with no live child, infertile and induced abortion.

Data Entry and Analysis: The Data Collected was analyzed through Statistical Package for Social Sciences (SPSS) version 20. Frequencies And Percentages were calculated for numerical variables like age. Chi- square has been used for establishing association between variables, confidence level of 95% was taken and bound of error was taken as 5% and the calculated P value of < 0.05 was taken as significant. The statistical tool used in the research is cross tabulation.

RESULTS

A total of 205 women were interviewed through self administered structured questionnaire. Median Age of women was between 26-35 years. Family income of (55.6%) women was <10000Rs and (44.4%) women had monthly family income between 11000-17000. (42.9%) women who had 2-3 children (p=0.000). 192 women were housewife (93.7%, p=0.000. Out of 205, 117(57.1%) women had abortion between 11-20 weeks of gestation (p=0.045). 199 (97.1%) women had 2-3 abortions. 154(75%) women had visited the doctor for vaginal bleeding suggesting threatened abortion (p=0.037). 108 women had abnormality of aborted baby showed on Ultra Sound (p=0.040).

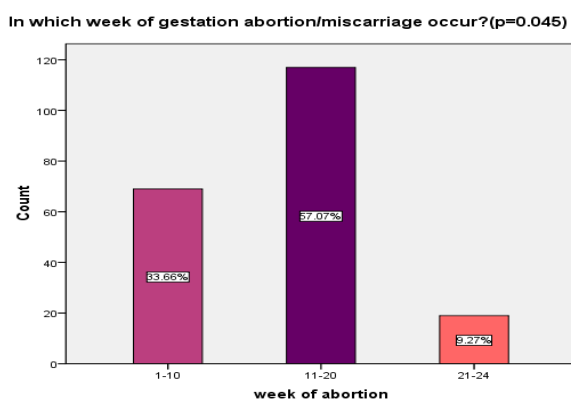


Figure No.1: Week of abortion occur.

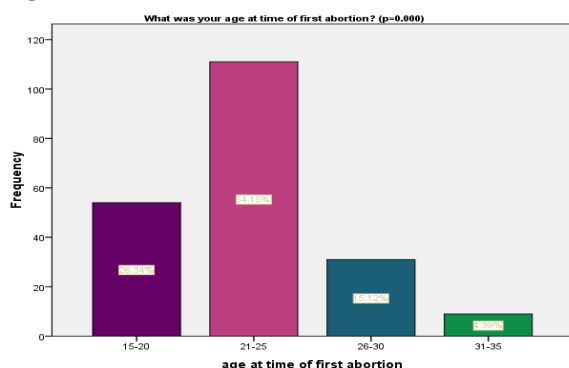


Figure No.2: Age at time of first abortion

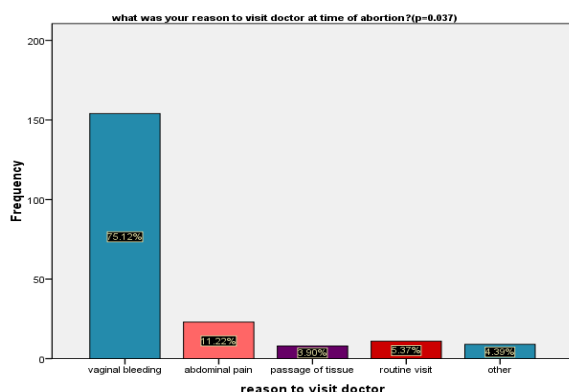


Figure No.3: Reasons to visit doctor.

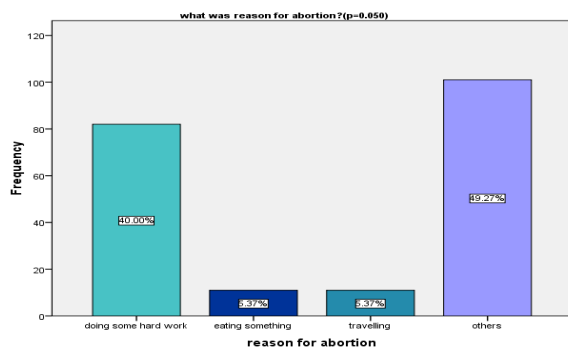


Figure No.4: Reasons for abortion.

78 women had infection in 1st trimester of pregnancy (p=0.029), 70 women took capsules (antibiotics) for

infection in 1st trimester of pregnancy (34.1%), (p=0.010), 64 women had trauma (p=0.003) 154 women had cervical incompetence (p=0.021). 76.6% women had lifted heavy objects (p=0.059). 113 (55%, p=0.035) women knew the cause of abortion 126 (61.5%, p=0.049). 114 (55.6%) women sought medical advice (p=0.062) & 47 (22.9%) women were advised to avoid lifting heavy weights for 4-6 months (0.012). 133 women were advised to take folic acid before on next conception (p=0.050).

DISCUSSION

Pakistan population council's research suggests: a) the annual abortion rate in Pakistan is about 29 According to the study conducted in Liaquat Medical College Hospital, Hyderabad, Pakistan from January 2005 to December 2006 to find out the rate of abortion in Pakistan. It is estimated that out of 2014 gynecological patients, 240 cases were of abortion i.e. 11.4% was prevalence of abortion. Most cases of abortions occurred in women aged between 26-35 years. The prevalence of abortion increase as the parity increases per 1,000 women aged 15-49 years. ¹¹If this persist every Pakistani women will have abortion in her life. b) About 1 in seven pregnancies is terminated by abortion. c) Associated mortality & morbidity rates are high. d) 23% of all Pakistani women who get an abortion are hospitalized for treatment of complications.) Abortion rate is higher in Pakistan than India. ¹²The aim of our study was to evaluate impact of low socioeconomic status on pregnancy outcome for this purpose we have interviewed around 250 women that typically displayed social pattern in risk of spontaneous abortion. The indicators of socioeconomic status selected are primarily family income, parent's occupation, lifestyle factors, nutrition status and proper attendance at antenatal setups that are either qualitatively or quantitatively effecting pregnancy outcome.

According to study conducted in 2005 by Dickson suggest two fold risk of spontaneous abortion in lower compared with that of higher socioeconomic class. ¹³

One more study supports our result that estimates that among all abortions 86% are spontaneous and due to malnutrition, intrauterine growth retardation and high rate occurs among teenage mothers. ¹⁴

A Study recent research study conducted in Karachi by Salem and Fikree articles on induced abortion in low socioeconomic also concluded that risk of spontaneous abortion are increasing parallel to induced abortion. ¹⁵

The annual hospitalization rate varies from a low of about 3 per 1000 women in Bangladesh to a high of about 15 per 1000 in Egypt and Uganda. Nigeria, Pakistan, and the Philippines have rates of 4-7 per 1000, and two countries in Latin America with recent data have rates of almost 9 per 1000. ¹⁶

Induced septic abortions contribute significantly to maternal morbidity and mortality. Improving literacy

rate in our female population and effective family planning should reduce its incidence. Different resources should be used to develop awareness of the hazards of induced abortions in the community.¹⁷

In countries where abortion is restricted, women have to resort to clandestine interventions to have an unwanted pregnancy terminated. As a consequence, high rates of unsafe abortion are seen, such as in Sub-Saharan Africa where unsafe abortion occurs at rates of 18–39 per 1 000 women.¹⁸

The study was focused on low socio economic women, belonging to income group >Rs10, 000- 20,000/- As we considered occupation as risk, mostly women were house wife whom we interviewed. Most of the women 42.4% were between 26-35 years of age, as age is the risk factor for abortion and most of the women had their first abortion in 21-25 years of age. Similar Findings were made by a Study in China .¹⁹ Women of this age were having only 2-3 children and their total no. of abortions range from 1 to 4 suggest a wide range of abortions as it is a great demise for a women. Only half of women knew their cause of abortion rest didn't asked from doctor or cause was unknown. 61% of abortion carried out at home as there is trend in Pakistan to have consultation with dais and ayas. Almost half of abortions (57.1%) occurred in first trimester.

The study found most common reason to visit a doctor or dais was vaginal bleeding suggesting threatened abortion. Probable reason for abortion according to our research was abnormality of aborted baby shown in Ultra Sound done in first trimester, any infection in 1st three months of pregnancy for which women took antibiotics/capsule, any trauma during her ante natal period, women who suffer cervical incompetence, and some lifted heavy objects which most commonly a heavy bucket. As most women seek advice from doctor regarding next conception and their future pregnancy outcome & doctor advised to avoid pregnancy for 4-6 months after this abortion. Women also advised to take folic acid before next conception in order to prevent defects in child.

Post-abortion care focuses on treatment of incomplete abortion and provision of post-abortion contraceptive services. To enhance women's access to postabortion care, focus is increasingly being placed on upgrading midlevel providers to provide emergency treatment as well as implementing misoprostol as a treatment strategy for complications after unsafe abortion.

Spontaneous pregnancy loss is common, with approximately 15% of all clinically recognized pregnancies resulting in miscarriage.²⁰

These are preventable causes and can be prevented by an effective family planning services and by improving women educational and social status providing maximum awareness about antenatal care, thus reducing the incidence of abortion.

CONCLUSION

The study concluded that frequency of abortion in low socioeconomic status is high and the level of awareness about the preventive measures and risk factors of spontaneous abortion is unsatisfactory. In addition, increasing rate of abortion increases morbidity and mortality, broadly affecting health care and cost. Research and policy that acknowledge the importance of all aspects of women's reproductive health—including proper antenatal care, good support including social and financial to women bearing pregnancy, awareness about pre-natal, natal and postnatal care—are essential to meeting the reproductive health care needs of low-Socio-economic women. Increased efforts are needed to help both adolescent women and adult women of all economic statuses avoid unwanted outcomes of pregnancy. There is a crucial need to take preventive measures in low socioeconomic class to save the morbidity and mortality of women and children to make our society flourish and sound.

Author's Contribution:

Concept & Design of Study:	Tariq Kamal Jafri
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Data Analysis:	Tariq Kamal Jafri, Kiran Mehtab
Revisiting Critically:	Tariq Kamal Jafri, Tafazzul H. Zaidi
Final Approval of version:	Tariq Kamal Jafri

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