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ORIGINAL ARTICLE

Study of Underlying Factors among Women Presenting with Septic/Unsafe Termination of Pregnancy

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ABSTRACT

Background: In our nation, induced abortions are common. Unexpected and unintentional births are serious public health issues in both developed and underdeveloped nations. According to the WHO, abortion complications account for 2–12% of maternal fatalities in Pakistan. The circumstances surrounding these abortions have major ramifications for both females and communities. However, insufficient information about factors leading to septic induced abortions at the country level was the reason to determine the contributing factors among women with abortion.

Objective: The objective of our current research is to regulate occurrence of underlying factors contributing in patients presenting with septic induced abortion in a tertiary care setup.

Methods: This cross-sectional study was conducted at Department of Obstetrics and Gynecology, Jinnah hospital, Lahore for six months after approval of synopsis. Sample size of 130 cases was included through non-Probability consecutive sampling technique after the approval from hospital ethical committee. Informed consent was taken from each patient before including them in the study.

Results: The mean age of the women was noted 26.24±4.93 years of which the minimum age was 18 year and maximum of 40 years. Out of these 130 women 26(20%) had no child, at least one abortion was most common as it was noted in 197(82%) of women. The underlying factors contributing to septic induced abortion it was noted that unwanted pregnancy in 41(31.5%) of cases, failed contraception in 37(28.5%) of cases, divorce in 6(4.6%) of cases, displeased family relation in 27(20.8%) of women and out of wedlock was noted in 19(14.6%) of cases. When data were stratified for effect modifiers statistically significant difference was found between parity and contributing factors for abortions (P-value = 0.000) and insignificant difference was observed with respect to age, educational status and economic status i.e., P-value > 0.05.

Conclusion: The most common reason for abortion was unwanted pregnancy among the pregnant women.

Keyword: Pregnancy, Abortion, Septic, maternal fatalities in Pakistan, WHO.

INTRODUCTION

The WHO defines unsafe abortion as “a procedure for terminating an unintended pregnancy carried out either by person lacking the necessary skills or in an environment that does not conform to minimal medical standards, or both.” Worldwide unsafe abortions account for 12% to 30% or more of direct maternal deaths [1]. Globally 14 of 1000 women aged 15-44 years had an unsafe abortion in 2008. Every year an average 237 women experience a Severe Acute Maternal Morbidity from abortion for every 100,000 live births. Worldwide maternal deaths attributable to unsafe abortions have remained close to 13%, majority of these deaths occur in Africa and Asia [2]. Every year around 5 million women are admitted to hospitals as a result of unsafe abortion in developing countries like Pakistan. Severe trauma including uterine perforation, rectal fistulae or bowel injuries was reported in 7.2% of all women admitted with complication of abortion. It is also associated with long term health consequences such as infertility. Typically, women with unsafe induced abortions have more severe symptoms than women with spontaneous abortion. Unsafe abortion accounts for 15%-20% of maternal deaths in India [3]. In Pakistan 11% of maternal deaths were attributed to induced abortions in hospital-based survey of 30 private and public hospitals. Most underlying cause of abortion was found to be complete family (45%), 9% females reported that they did not want this pregnancy, reluctant to use contraception (12.7%) and 10.9% reported that they failed to use contraceptives. Early abortion adds considerably to maternal death globally. Deaths attributable to unsafe abortions may be prohibited by actual contraception, and appropriate post abortion care [4]. Unlike other causes of maternal deaths, mortality due to septic induced abortions is entirely preventable. Apart from physical consequences unsafe abortions have impact on psychological health of mother as well as siblings so there is a need to study all minor and major factors which are associated with this problem. As evident from literature review here is wide difference in outcomes of few studies conducted in Pakistan on this subject. Also, it is observed that illegal pregnancy contributing to unsafe abortions is much more common underlying factor than is observed in previously conducted studies in our local population. The aim of present study is to clearly identify the main contributing factors in our local population so that more relevant and effective measures can be taken to combat this grave problem [5].

METHODOLOGY

A random sample of 150 patients is computed with a 94% confidence level, a 6% margin of error, and the predicted proportion of undesired pregnancy, which is 8% in females presenting in a tertiary care hospital following sepsis early miscarriage.

Respondents having the ages 15-40 years with septic induced abortion with its complications (as per operational definition).

Exclusion criteria

- Females leaving the hospital against medical advice.
- Females with other chronic systemic problems like HTN (BP>140/90mmHg), deranged LFTs (AST>40IU, ALT>40IU), reposted deranged RFTs (creatinine>2gm/dl).

Data collection Procedure:

The research examined 150 women who fulfilled the requirements from the emergency room of the Department of Obstetrics and Gynecology at Jinnah Hospital in Lahore. Before enrolling a participant in the trial, explicit permission was obtained from them.

Data analysis: SPSS version 25 was being used to gather and analyze all of the information. For quantitative characteristics such as age and gestational age at the moment of abortion, mean and standard deviation were determined. The Chi-square test will use post-stratification, with either a P-value of 0.06 deemed relevant.

RESULTS

There was total 150 women who remained enrolled in this study after taking an informed consent. The mean age of the women was 26.24±4.93 years of which the minimum age was 18 year and maximum of 40 years. (Table 1). Out of these 130 women 26(20%) had no child, 17(13%) had one child, 20(15.4%) had two children, 27(20%) had three children, 32(24%) which were in majority had four children and just 8(6.2%) of women had five children at the time of enrollment in this study. (Table # 2).

Table 1: Descriptive Statistics for Age:

n	130
Mean	26.24
Std. Deviation	4.932
Minimum	18.00
Maximum	40.00

Table 2: Frequency Distribution according to Parity:

Parity of women:			
	Parity	Frequency	Percentage
	0	26	20.0
	1	17	13.1
	2	20	15.4
	3	27	20.8
	4	32	24.6
	5	8	6.2
	Total	130	100.0

The most common underlying factors contributing in patients presenting with septic induced abortion were unwanted pregnancy in 41(31.5%) of cases, failed contraception in 37(28.5%) of cases, divorce in 6(4.6%) of cases, unsatisfied family relation in 27(20.8%) of women and pregnant out of wedlock was noted in 19(14.6%) of cases. (Table 3) As educational status is anxiety common of the women got matriculation 47(36.3%) while just 8(6.2%) women were illiterate, 27(20.8%) got an education above higher secondary (Table# 4). Mean gestational age of the women at the time of abortion was 31.43±6.19 week. In the group of economic status 35(26.9%) of women were in <10,000 income category, 57(43.8%) in 10,000 to 50,000 Rs category and 38(29.2%) in the category who earn >50,000 Rs per month. (Table # 6). There was statistically insignificant difference observed with respect to age for reasons of abortion (p-value >0.05) (Table# 7).

Statistically substantial variance was found among parity and contributing aspects of septic induced abortion (P-value = 0.000) (Table#8). But there was irrelevant difference with respect to economical (P-value = 0.838) and educational status of women (P-value = 0.678).

Table 3: Frequency Distribution according to Reason for Abortion:

Reason		Frequency	Percent
	Unwanted pregnancy	41	31.5
	Failed contraception	37	28.5
	Divorce	6	4.6
	Unsatisfied family relation	27	20.8
	Pregnancy out of wed lock	19	14.6
	Total	130	100.0

Table 4: Frequency Distribution according to Educational Status of women:

	Frequency	Percent
Illiterate	8	6.2
Primary	14	10.8
Middle	34	26.2
Metric	47	36.2
Above	27	20.8
Total	130	100.0

Table 5: Descriptive Statistics for Gestational Age:

N	Mean	Standard deviation
130	31.43	6.19

Table 6: Frequency Distribution according to Economical Status of women:

Economic Status of women:			
		Frequency	Percent
	<10,000	35	26.9
	10,000-50,000	57	43.8
	>50,000	38	29.2
	Total	130	100.0

Table 7: Stratification with respect to Age:

	Reason for abortion									
	Unwanted Pregnancy		Failed Contraception		Divorce		Unsatisfied family relation		Pregnancy out of wedlock	
Category of age	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
18-25 years	17	45	15	47	5	57	14	48	11	51
	27.4%	72.6%	24.2%	75.8%	8.1%	91.9%	22.6%	77.4%	17.7%	82.3%
>25 years	24	44	22	46	1	67	13	55	8	60
	35.3%	64.7%	32.4%	67.6%	1.5%	98.5%	19.1%	80.9%	11.8%	88.2%
Total	41	89	37	93	6	124	27	103	19	111
	31.5%	68.5%	28.5%	71.5%	4.6%	95.4%	20.8%	79.2%	14.6%	85.4%
P-value	0.352		0.335		0.102		0.669		0.457	

Table 8 Stratification with respect to Parity:

		Reason for abortion									
		Unwanted pregnancy		Failed contraception		Divorce		Unsatisfied family relation		Pregnancy out of wed lock	
Parity of women		Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
	.00	1	25	1	25	3	23	11	15	10	16
		3.8%	96.2%	3.8%	96.2%	11.5%	88.5%	42.3%	57.7%	38.5%	61.5%
	1.00	4	13	2	15	0	17	7	10	4	13
		23.5%	76.5%	11.8%	88.2%	.0%	100%	41.2%	58.8%	23.5%	76.5%

	2.00	14	6	3	17	2	18	0	20	1		25
		70.0%	30%	15.0%	85%	10.0%	90%	.0%	100%	5.0%		95%
	3.00	6	21	14	13	1	26	4	23	2		25
		22.2%	77.8%	51.9%	48.1%	3.7%	96.3%	14.8%	85.2%	7.4%		92.6%
	4.00	14	18	13	19	0	32	4	28	1		31
		43.8%	56.3%	40.6%	59.4%	.0%	100%	12.5%	87.5%	3.1%		96.9%
	5.00	2	6	4	4	0	8	1	7	1		7
		25.0%	75%	50.0%	50%	.0%	100%	12.5%	87.5%	12.5%		87.5%
Total		41	89	37	93	6	124	27	103	19	111	
		31.5%	68.5%	28.5%	71.5%	4.6%	95.4%	20.8%	79.2%	14.6%	85.4%	
P-value		0.001		0.001		0.087		0.002		0.002		

Table 9 Stratification with respect to Education:

	Reason for abortion									
	Unwanted pregnancy		Failed contraception		Divorce		Unsatisfied family relation		Pregnancy out of wed lock	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Illiterate	2	6	3	5	1	7	1	7	1	7
	25%	75%	37.5%	62.5%	12.5%	87.5%	12.5%	87.5%	12.5%	87.5%
Primary	5	9	3	11	0	14	3	11	3	11
	35.7%	64.3%	21.4%	78.6%	0%	100%	21.4%	78.6%	21.4%	78.6%
Middle	12	22	7	27	1	33	9	25	5	29
	35.5%	64.7%	20.6%	79.4%	2.9%	97.1%	26.5%	73.5%	14.7%	85.3%
Metric	11	36	17	30	4	43	9	38	6	41
	23.4%	76.6%	36.2%	63.8%	66.7%	91.5%	19.1%	80.9%	12.8%	87.2%
Above	11	16	7	20	0	27	5	22	4	23
	40.7%	59.3%	25.9%	74.1%	0%	100%	18.5%	81.5%	14.8%	85.2%
Total	41	89	37	93	6	124	27	103	19	111
	31.5%	68.5%	28.5%	71.5%	4.6%	95.4%	20.8%	79.2%	14.6%	85.4%
P-value	0.559		0.553		0.292		0.884		0.954	

Table 10 Stratification with respect to Economical status:

	Reason for abortion									
	Unwanted pregnancy		Failed contraception		Divorce		Unsatisfied family relation		Pregnancy out of wed lock	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
<10,000	8	27	10	29	2	33	9	26	6	29
	22.9%	77.1%	28.8%	71.4%	5.7%	94.6%	25.7%	74.3%	17.1	82.9%
10,000-50,000	16	41	19	38	2	55	12	45	8	49
	28.1%	71.9%	33.3%	66.7%	3.5%	96.5%	21.1%	78.9%	14.0%	86%
>50,000	17	21	8	30	2	36	6	32	5	33
	44.7%	55.3%	21.1%	78.9%	5.3%	94.7%	15.8%	84.2%	13.2%	86.8%
Total	41	89	37	93	6	124	27	103	19	111
	31.5%	68.5%	28.5%	71.5%	4.6%	95.4%	20.8%	79.2%	14.6%	85.4%
P-value	0.100		0.430		0.865		0.578		0.878	

DISCUSSION

Accurate data on induced abortion are difficult to obtain, especially in countries in which the technique is outlawed or highly condemned. Despite the fact that abortion is legal in Pakistan in most cases, statistics on abortion procedure are inaccurate; poor track record maintenance and health professionals' unwillingness to correctly define abortion types, among other issues, render hospital data unsuitable for estimating abortion services [6]. Because abortions seem widely stigmatized in Pakistani society, misreporting is to be anticipated, especially when queries require respondents to report on repeated abortions. Almost one-fifth of the 150 females in our sample were said to have had an induced abortion (21.3 percent) This conclusion is consistent with what has been found in other investigations. Multiple studies indicate varying results on the relationship between age and induced abortion; some research revealed that individuals over the age of 40 were much less inclined to have a miscarriage than young females [7]. Other research in Pakistan, Bangladesh, and India discovered the opposite. We discovered that the older a woman's age demographic, the more likely she was to have an abortion. In fact, women aged 45-49 were more than five times more likely than non-aged 15-24 to have had an abortion [8]. In many cultures, it is assumed that the prevalence of abortions by age is bimodal, with women in the youngest age groups wanting to postpone reproducing and females near the end of their reproductive years. Various factors were indicated as the most important reasons for turning to abortion by research respondents. These explanations seem to highlight their awareness of the obligations of motherhood and family life. Three-fourths of women stated that they really cannot support a kid; three-fourths stated that having a baby might compromise with employment, education, or the capacity to care for relatives; and half stated that they did not want to be a single parent or were experiencing issues between their spouse or partner [9]. The rate of pregnancies in the previous twelve months

was 9.8 percent, with unplanned pregnancy being the cause for abortion in 28 (86.4 percent) of the instances. Pregnancy was unplanned in 38.4 percent of cases; in 5 (13.6 percent) cases, it happened owing to a low-risk perception of pregnancy; and in 4 (10.7 percent) cases, it happened thanks to contraceptive failure. It is critical that enhanced sexual health education is provided and that more Youth Friendly family planning services are made available in universities and other areas where young people congregate [10]. Youth reproduction health information, education, and communication programs should indeed be adequately customized to cover themes such as unplanned pregnancy with safe abortion, particularly to bridge students' knowledge gaps on legal problems surrounding abortion and safe abortion services. Increasing access to emergency contraception and condom distribution, with only an emphasis on drinking establishments frequented by students, may be extremely relevant. Lastly, campaigning for more liberalization of abortion services, in conjunction with other measures, may help to remove regarded needless hurdles to access to safe abortion services.

CONCLUSION

Untrained health professionals who conduct septic induced abortions contribute considerably to maternal morbidity and death. Their occurrence may be reduced if our female population's literacy rate improves and appropriate family planning is implemented. The outcomes of this study, as discovered in earlier studies, demonstrated that girls seek abortion for a variety of reasons based on their unique circumstances, including pregnancy at a later age. Women expressed lack of physical and financial resources to bear and rear another child. Females that carry an uninvited pregnancy to time need emotional support and adequate physical and financial assistance. As more than one third of our patients had induced abortion due to unwanted pregnancy and another one third due to contraception failure, ensuring availability and utilization of safe and effective contraceptive methods can minimize the need for induced abortion and its resultant complications.

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