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Original Article

The quest for small family size among Pakistani women - is voluntary termination of pregnancy a matter of choice or necessity?

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Abstract

Objective: To present the socio-biologic predictors of induced abortion among married women residing in low income squatter settlements of Karachi, Pakistan.

Methods: A cross-sectional survey was conducted in three squatter settlements of Karachi from June to August 1997. Interviews were conducted on 1,214 married women assessing past pregnancy history, literacy and employment status of self and spouse and specifically probing for past history of seeking an induced abortion.

Results: Fifty women reported an induced abortion during last three years prior to survey. Of these, forty percent (20/50) of abortion seekers were using some method of family planning before conceiving the index pregnancy. Post abortion family planning method use was adopted by 50% (25/50) of the abortion seekers. The most parsimonious multivariate logistic regression model included grand-multigravidity (OR 2.6 CI, 1.3 - 5.2), literate status of the woman (OR 1.9 CI, 1.0 - 3.4) and the 26-35 age group (OR 3.0 CI, 1.4 - 6.6).

Conclusions: Unplanned/mistimed pregnancies generally result from high unmet need and ineffective use of contraceptives and culminate through induced abortions. We propose that improvement in the quality of family planning counseling should be targeted to effective use of a method, back-up support in case of method failure and the health consequences of unsafe abortions (JPMA 55:288;2005).

Introduction

Unwanted pregnancies are a major public health problem for both developing and developed nations as these are generally unplanned and most are terminated voluntarily.[1] The disparity in mortality associated with voluntary termination of unplanned/unwanted pregnancy range from 400-600 deaths/100,000 abortions in Asia and Africa to 0.6 deaths/100,000 abortions in developed countries depending largely on legal status.[2] In countries where abortion laws are restricted these pregnancies are terminated under unsafe conditions claiming millions of lives annually.[1] The World Health Organization estimates that 10-50% of women undergoing unsafe abortions develop serious complications such as intra-abdominal injury, sepsis, hemorrhage and need medical care.[2,3]

Characteristics of women seeking induced abortion are dependent on country's population policies, contraceptive prevalence, availability of reproductive health services, social structure and prevailing abortion laws. In Asian countries including the former Soviet republics in Central Asia and three of the four Latin American countries married women account for a large share of induced abortions. In the developed countries especially Germany, Hungary, Israel, Italy and the Netherlands unmarried women account for close to half of abortions.[4] In Pakistan where abortions are illegal, the profile of women seeking abortions are married, older and have high parity.[5]

Unwanted pregnancies occur irrespective of contraceptive prevalence rate or total fertility rate of a country. Some of the determining factors for conceiving unplanned or mistimed pregnancies are individual reproductive behavior and preferences, desired family size, desired sex of the child, socio-economic factors and ineffective contraceptive use.[6,7] Lack of knowledge about back-up support and use of emergency contraception in case of method failure (or unprotected sex) are pertinent factors that lead to unplanned/mistimed pregnancy. Though these reasons vary amongst countries but some of commonly identified socio-biological factors are education status, age of the woman, number of previous children and contraceptive use.[4,6,7]

There are several studies from Pakistan[8,9] that document the characteristics of women seeking an abortion but none that compares the socio-demographic factors among abortion seekers and non-seekers.

Material and Methods

This study is part of a larger cross-sectional survey conducted in three squatter settlements of Karachi from June to August 1997. The purpose of the overall survey was to determine induced abortion rates, reasons for termination of pregnancy and to identify abortion providers. Selection of survey sites were purposive as abortion is a sensitive topic and women are very hesitant to discuss abortion related issues. Consequently, the survey was conducted in three of the six field sites where the Department of Community Health Sciences, The Aga Khan University (CHS/AKU) had operational Primary Health Care programs for the past 12 years [1984 - 1996]. Each site covered a population of 10,000-15,000 each (approximately 1,000-1,500 households). A random list of 406 houses was generated for each of the three sites independently using the random number generator program of Epi Info 6.

Details of sample size calculations are presented elsewhere.[8] From each household one woman who met our eligibility criteria was interviewed. The eligibility criteria included ever-married, the reproductive age group (15-49 years) and history of at least one pregnancy irrespective of the outcome. Where there was more than one eligible woman in a household, one was randomly selected.

Data was collected on a structured questionnaire developed following focus group discussions among women living in these squatter settlements. Variables included were socio-economic, religion, education and employment status of respondent and spouse, age of respondent and spouse at the time of abortion, duration of marriage, gravidity and parity. The interviewers were women who were currently national health workers of the respective squatter settlements but had previously worked as community health workers when these sites were under the aegis of the CHS/AKU field sites. Interviews were conducted at the homes of the women in privacy, after verbally obtaining informed consent.

We identified 100 women who reported ever seeking an induced abortion in their entire reproductive life from the 1,214 women that were successfully interviewed as part of the larger project. Cases (n=50) were defined as women who reported seeking an induced abortion during the last three years prior to the survey. The remaining 50 women were excluded from the analysis. Controls (n=1,114) were defined as women who never reported seeking an induced abortion during their entire reproductive life. The number of cases (n=50) and controls (n= 1,114) allowed us to detect an odds ratio of 2.5 with a power of 80%.

Induced abortion was defined as "an attempt to terminate a pregnancy other than for medical reasons irrespective of methods and outcome. Unsuccessful attempts resulting later in live birth, miscarriage after 28 weeks of gestation, or stillbirths are included".

Abortion seekers ever married women in reproductive age group 15-49, who reported seeking an abortion during the past three years.

Non-abortion seekers were ever-married women in reproductive age group 15-49, who reported never seeking an abortion in their entire reproductive life.

Socio-economic status (SES) was a proxy composite index computed, based on the ownership of household assets such as iron, sewing machine, refrigerator, washing machine motorcycle and car among others. The classification of low, middle, and high SES was based on the number of assets for each household. The cutoff values are approximately one standard deviation around the mean number of household assets. The respondents who owned less than four items were considered as low SES, between four to eight items as middle SES and above eight items as high SES.

Standard descriptive analysis was performed including frequency distributions and calculation of means and standard deviations for continuous variables. Crude odds ratios (95% confidence intervals) were generated for each of the risk factors. Multivariate logistic regression analysis was used to adjust for the simultaneous effect of several associated factors on the risk of women opting for an abortion. Criteria for inclusion of risk factors in multivariate analysis were p-value of ≤ 0.2. Statistical

package utilized for the analysis was SPSS. 10 .0 for Windows.

Results

The mean age of 1,214 respondents was 32.0 (±7.7) years whereas the mean age of the husbands was 35.8 (±10.5) years. Approximately 60% of the respondents were illiterate and mostly housewives (84%) whereas 68% of their husbands were literate and almost all (94%) were employed at the time of the interview. The mean duration of marriage was 14 (±7) years. The average parity was 4.6 (±2.5) and gravidity 5 (±2.7) (Table 1).

Table 1. Characteristics of the sample population; Karachi, Pakistan, 1997.

Characteristics	Subjects n=1,214	Percentage
Ethnicity		
Punjabis	629	51.8
Mohajirs	251	20.6
Pathans	164	13.5
Sindhis	160	13.1
Socio-Economic Status		
High	171	14.1
Medium	790	65.1
Low	253	20.8
Education		
Respondent		
Illiterate	726	59.8
Literate	488	40.2
Husband		
Illiterate	354	30.2
Literate	819	69.8
Occupation		
Respondent		
Housewife	202	16.6
Gainfully Employed	1012	83.2
Husband		
Unemployed	1105	93.6
Employed	75	6.3
Age (years)		
Respondent		
15 - 25	263	21.7
26 – 35	569	46.9
> 35	382	31.5
*Husband**		
?30 years	361	30.6
> 30 years	820	69.4
Marriage duration(years)		
1-9	394	32.4
10 – 19	487	40.1
20 +	333	27.4
Religion		
Muslim	649	53.5
Christian	555	45.7
Hindu	10	0.8

* Missing information on 33 subjects .

Among the 50 women (cases) who sought to terminate their pregnancy, 43 women had successful abortions, three had stillbirths, two gave birth to live children and two were carrying their pregnancy at the time of interview. Forty percent (20/50) of abortion seekers were using some method of family planning before conceiving the index pregnancy. The methods used were condoms (9/20; 45%), oral pills (3/20; 15%), IUCD (3/20; 15%) and injectables (2/20; 10%). Reasons for termination of pregnancy included birth spacing (21/50), limiting family size (15/50), poverty (10/50) and ill health of mother (7/50). Post abortion family planning method use was adopted by 50% (25/50) of the abortion seekers; 12 of these were amongst the 20 who reported using a method before termination. The methods adopted were condoms (n=9), injectables (n=8), IUCD (n=3), tubal ligation (n=2) and oral pills (n=1). Information on two women was not available.

Significant risk factors on univariate analysis include literate status of the woman (OR 1.7; 95% CI 1.0-3.1), maternal age of 26-35 years (OR 2.4; 95% CI 1.1 - 5.1), grand multigravidity (OR 1.9; 95% CI 1.0 -3.5), and marriage duration of more than 9 years (OR 2.8; 95% CI, 1.2 - 6.4). Other variables such as husband's age and literacy status, SES status and religion did not contribute to risk of seeking an abortion (Table 2).

Table 2. Characteristics of abortion seekers and non-abortion seekers, crude and adjusted odds ratio (OR) and 95% confidence interval (CI); Karachi, Pakistan.

Variables	Abortion seeker (n =50)	Non-abortion seeker (n = 1,114)	Unadjusted OR 95 % CI	Adjusted OR 95 % CI
Education				
Respondent				
Illiterate	23	670	1.0	
Literate	27	444	1.7 (1.0 - 3.1)	1.9 (1.0 - 3.4)
Husband				
Illiterate	15	326	1.0	
Literate	35	788	0.9 (0.5 – 1.7)	
Occupation				
Respondent				
Housewife	42	939	1.0	
Gainfully Employed	8	175	0.9 (0.4 - 2.1)	
Husband				
Unemployed	2	67	1.0	
Employed	48	1047	1.5 (0.3 - 6.4)	
Age (years)				
Respondent				
15 - 25	7	255	1.0 (0.3 - 2.8)	2.0 (0.6- 6.3)
26 – 35	34	521	2.4 (1.1 – 5.1)	3.0 (1.4 – 6.6)
> 35	9	338	1.0	
*Husband**				
?30 years	14	345	1.0	
> 30 years	36	741	1.1 (0.6 - 2.1)	
Religion**				
Muslim	26	605	1.0	
Christian	24	499	0.8 (0.5 - 1.5)	
SES				
High	8	157	1.0	
Medium	35	726	0.9 (0.4 – 2.0)	
Low	7	231	0.5 (0.2 – 1.6)	
Gravidity				
? 4	16	532	1.0	
5+	34	582	1.9 (1.0 – 3.5)	2.6 (1.3-5.2)
Parity				
? 4	27	589	1.0	
5+	23	525	0.9 (0.5–1.6)	
Marriage duration (years)				
1- 9	13	379	1.4 (0.5 – 3.6)	
10-19	30	444	2.8 (1.2 – 6.4)	
20+	7	291	1.0	

* Missing information on 28 subjects, ** Missing information on 10 subjects .

In the final multivariate model, grand multigravidity (OR 2.6; 95% CI 1.3 - 5.2), literate status of the woman (OR 1.9; 95% CI, 1.0 - 3.4) and the 26-35 age group (OR 3.0; 95% CI, 1.4 - 6.6) retained their significance as independent risk factors.

Discussion

Grand multigravidity ($\geq$ 5 pregnancies) was identified as a strong predictor of induced abortion suggesting that pregnancies were terminated for the purpose of birth spacing or limiting family size. These pregnancies, in other words, were perhaps either unplanned or mistimed. Our premise is further supported by the evidence that following the index abortion only 30% (15/50) of abortion seekers went on to have live births. The remainder 70% (35/50) either did not conceive after the index abortion or had additional abortions which they claimed as spontaneous (data not shown).

It is interesting to note the rapidly rising trend in contraceptive prevalence rates (CPR) over an eight year period in these sites. In 1989 the CPR was 15.6%[10], rising to 35.6% in the current survey. Despite this relatively high CPR, the total abortion rate among this study population was 0.86.8 Contraceptive use among the abortion seekers was 40% increasing to 50% in the post-abortion period indicating the strong and persistent desire for small family size. The evidence therefore indicates that the study women availed themselves of any means to retain their 'met' desire even if it meant resorting to abortions that are illegal and unsafe. Similar findings have been reported from Matlab, Bangladesh. Women who had used contraceptives in the preceding pregnancy interval were about twice as likely to resort to induced abortion as were women who did not use contraceptives with concomitant disparity in induced abortion ratio: 28 abortions per 1,000 live births among contraceptive users, compared with 15 per 1,000 live births among contraceptive non-users.[11] On the other hand, birth spacing and limiting family size was the rationale for seeking an abortion irrespective of the contraceptive user status among the 50 abortion seekers in our study. These findings call attention to still prevailing high unmet need for family planning that is often addressed by voluntary terminations in these communities.

The profile of abortion seekers (married, educated and high gravidity) is similar to reports from Latin America and certain parts of Africa and Asia.[6] The distribution of abortions according to educational status of women is affected by country's educational attainment. Data from a Pakistani study and of Bangladesh[11] identifies illiteracy as a characteristic whereas this study reveals that literate women are at higher risk of seeking an induced abortion as compared to illiterate women. The most likely explanation for the conflicting evidence is that educated women perhaps better appreciate the health and economical benefits of spacing and small family size and therefore consciously terminate unplanned or mistimed pregnancies.

The findings from this study should be seen in the light of methodological constraints. The most significant is the sensitive nature of the topic that lends itself to response and recall bias that may lead to under-reporting and misclassification of the true extent of induced abortions. We attempted to address these biases by conducting the study in familiar surroundings and limiting the time period to the past three years.

In summary, the results of our study illustrate that unplanned/mistimed pregnancies generally result from ineffective use of contraceptives and high unmet need and culminate through induced abortions in order to maintain desired small family size. Based on the results of this study, we propose that the quality of family planning counseling should be improved with emphasis on effective use of a method, back-up support in case of method failure and on dire consequences of having unsafe abortions.

References

1. The Alan Guttmacher Institute (AGI), sharing responsibility: women, society and abortion Worldwide, New York: AGI, 1999.

2. World Health Organization (WHO). Abortion: A tabulation of available data on the frequency and mortality of unsafe abortion. 2nd ed. Geneva: WHO 1994.

3. JC Konje, KA Obesesan and OA Ladipo. Health and economic consequences of septic induced abortion. Int J Gynaecol & Obstet. 1992;37:193-7.

4. A Bankole, S Singh and H Taylor. Characteristics Of Women Who Obtain Induced Abortion : A Worldwide Review. Int Fam Plann Perspect, 1999; 25:68-77.

5. Tayyab S, Samad J N. Illegally Induced Abortions: A Study of 37 Cases. J Coll Physicians Surg Pak 1996;6:104-6.

6. J Adedetunji. Mistimed and Unwanted Pregnancies In The Course Of Fertility Transition. In: Workshop On Prospects For Fertility Decline In High Fertility Countries. Population Division. Department of Economic and Social Affairs, United Nations Secretariat. New York, 9-11 July 2001.

7. C Marston and J Cleland. Relationships between contraception and abortion: a review of the evidence. Int Fam Plann Perspect 2003;29:6-13.

8. Saleem S and Fikree F. Induced abortion in low socio-economic settlements of Karachi, Pakistan: rates and women's perspectives. J Pak Med Assoc 2001;51:275-9.

9. Rehan N, Inayatullah A and Chaudhary I. Characteristics Of Pakistani Women Seeking Abortion And A Profile Of Abortion Clinics. Journal Of Women's Health & Gender Based Medicine 2001;10:805-10.

10. Fikree F. Determinants of perinatal and maternal mortality in Karachi, Pakistan [PhD dissertation]. School Of Hygiene and Public Health, Johns Hopkins University , Baltimore, Maryland., 1993.

11. M Rahman, J daVanzo, A Razzaque. Do Better Family Planning Services Reduce Abortion In Bangladesh? The Lancet 2001;358:1051-6.