

**Unsafe Abortion-Related Morbidity and
Mortality in Pakistan:
Findings from a Literature Review**

Collective for Social Science Research

UNSAFE ABORTION-RELATED MORBIDITY AND MORTALITY IN PAKISTAN

FINDINGS FROM A LITERATURE REVIEW

(Research Output No. 2)

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Introduction

This document is a compilation of findings from Pakistan-based research on unsafe abortion that have emerged from medical and community-based studies. All of these studies have been published in academic journals or as reports from research carried out by organizations working in reproductive health. Since unsafe abortion and its corollary of post-abortion care have emerged as major items in the current reproductive health agenda among policy-makers and stakeholders in Pakistan, the Collective thought it appropriate to share the results of its literature review with its friends and partners working on these issues.

The review took place at the beginning of our research project entitled, “The Economic Costs of Unsafe Abortion-Related Morbidity and Mortality (UARMM)”, funded by the Packard Foundation. It was a significant part of the background research we conducted for our concept paper on the subject.¹ The next phase of the project will include a nation-wide survey to measure the costs of UARMM; its findings will be available in 2010.

Medical Studies

The tables in this document are designed to highlight research findings that are of direct relevance to the task of measuring these costs, but they are also of use to readers interested in specific types of information related to the series of events involved in UARMM. For example, the tables on medical research are presented based on certain categories of information from the research studies reviewed. These are:

- Study name, research period, universe from which cases were selected, number and type of cases studied,
- Patient profiles (include gestation period, patient’s age, parity, marital status, social status, and family planning history),
- Reason for induced abortion, methods used, and provider,
- Types of post-abortion complications and symptoms recorded,
- Types of medical interventions recorded,
- Proportion of abortion-related cases attributed to induced abortion among studies,
- Morbidity and mortality rates, as relevant to the study.

As far as possible, there is also mention as to whether the study under review was descriptive, cross-sectional or retrospective, as the findings vary in significance depending on what one is looking for.² The studies are almost 40 in number, spanning over the last fifteen years, evidence of how persistent has been the concern of medical

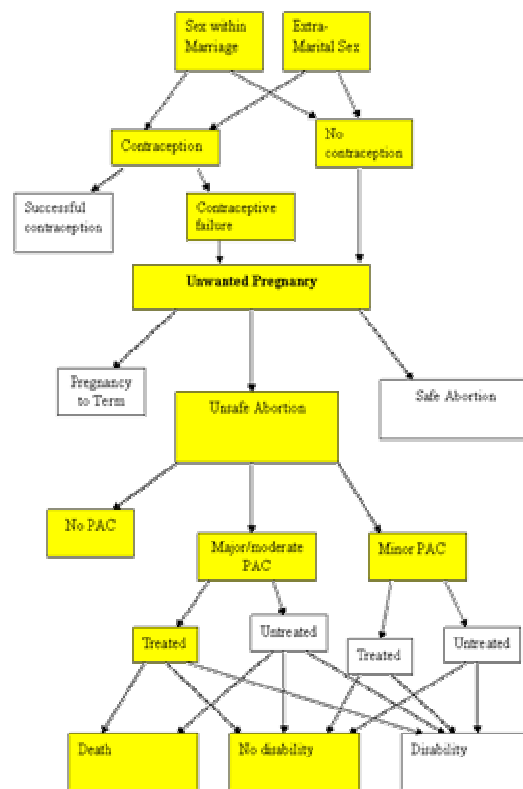
¹ The paper, *Measuring the Economic Costs of Unsafe Abortion Related Morbidity and Mortality in Pakistan: A Review of Methodology and Approaches*, can be downloaded from our website at http://www.researchcollective.org/projects2.php?PROJECT_ID=C_28.

² The medical journals that have published these studies include *Annals of King Edward Medical College*, *Journal of Pakistan Medical Association*, *Journal of Surgery of Pakistan Institute of Medical Sciences*, *Journal of Postgraduate Medical Institute*, *Pakistan Journal of Medical Research*, *Journal of College of Physicians and Surgeons Pakistan*, among others.

practitioners over management of induced abortion cases. They refer to research conducted in hospitals in Karachi, Hyderabad, Lahore, Multan, and Peshawar. However, no article based on medical research in Balochistan was identified, indicating a major gap of knowledge about the part of the country with the worst maternal health conditions. Most of the studies were conducted in hospitals based in Karachi and Lahore; this highlights the need to gather more data from secondary cities and district hospitals across the country.

These tables will help researchers and practitioners to recognize patterns and differences across medical studies pertaining to the stages of the event cycle. [See Figure 1] This cycle, discussed in detail in our concept paper, is used to describe the series of actions and decisions taken (or alternatives considered and not chosen) by a woman that may lead to her hospitalization for complications of unsafe abortion. The medical studies provide data specific parts of this cycle. These are: the woman's marital status, family planning use, reason for decision to terminate pregnancy, type of provider selected, type of complication that leads to hospitalization, details of treatment, and mortality figures. For practitioners working on maternal and reproductive health issues, it will be possible to get an overview of research findings pertaining to their area of work and where it impacts the event cycle. In Figure 1 the shaded boxes refer to parts of the event cycle for which we have identified and reviewed existing literature.

Figure 1. Event Cycle for Unsafe Abortion



Not all the tables cover the same studies. Some medical studies, for example, did not offer findings on patient profiles, and others did not give details on type of post-abortion complication, reason for induced abortion, or other categories. Where information was available in at least one category within a table, the relevant study was included. There are some blank boxes in the table, indicating that the study under review did not have data in that category.

There is no doubt some variation in the quality of the various medical studies, and it was beyond the scope of our review to assess this. However, the fact that the research has been published in medical journals requires that findings be taken into account by stakeholders working on this issue.

Community Studies

The community studies are fewer in number, and there may be multiple articles cited referring to one particular field study alone. We have organized the community tables based on the field studies, and this gives the reader a sense of how little work has been done on the subject around the country. However, in recent years the community studies may be increasing in number and we may not have identified all of them.

There is a clear gap in community research from Balochistan and NWFP, as well as rural areas of Sindh and Punjab.

The categories of information in the community studies are similar, but of course contain more data regarding the earlier stages of the event cycle. These studies offer a basic profile of abortions seekers, which includes their marital status, parity, education, family planning use, and reason for induced abortion. Some of the studies also provide a proportion of induced abortion to the total number of pregnancies in the sample population, the abortion rate, information about post-abortion complications, and mortality figures. The studies are based mainly in Lahore or Karachi communities, with only one study based in Peshawar that was conducted outside a hospital.

The earliest community study we identified took place in 1969, and was conducted by a non-government organization called the Maternity and Child Welfare Association of Pakistan (MCWAP). Since then this same organization, along with the Aga Khan University Hospital, Family Planning Association of Pakistan, and the Population Council have considerably increased our knowledge about this issue at the community level. Their studies reviewed here were selected based on their findings pertaining to unsafe abortion-related mortality and morbidity.

The categories of information that form the basis of the tables that follow could be used as a template to analyze findings from future studies as well. It is hoped that all of us working on this issue will continue to share our deepening understanding of it in the years to come.

Ayesha Khan
Karachi, March 20, 2009

Table 1. Patient Profiles Based on All Medical Studies

Study	Cases	Hospital	Patient Profile					
			Age	Gestation	Parity	Socio-economic Status	Family Planning History	Marital Status
1. Zaidi, Mastoor, Jaffry and Parveen. 1993	81 women with a history of illegally induced abortion were included in the study. 1 st study (prospective): Jan. 1977 to Sept. 1978 2 nd Study (retrospective): Nov. 1990 to Oct. 1991	Dept. of Obstetrics and Gynaecology, Jinnah Postgraduate Medical Center	Ages 15-25: 34 (42%) 26-35: 42 (52%) 36-45: 5 (6%)	Less than 8 weeks: 33 (41%) 9-14 weeks: 28 (35%) 15-20 weeks: 13 (16%) More than 20 weeks: 7 (9%)	0 children: 9 (11%) 1-4 children: 35 (43%) Greater than 5 children: 37 (46%)	--	--	5 (6%) nulliparous women were unmarried
2. Tayyab and Samad. 1996.	37 patients identified with illegally-induced abortions were interviewed and examined. Jan. 1992 to Dec. 1994	Unit II, Dept. of Obstetrics and Gynaecology, Civil Hospital, Karachi	Ages 15-24: 6 (16%) 25-34: 29 (78%) 35-44: 2 (6%)	13-20 weeks: 13 (35%) More than 20 weeks: 2 (5.4%)	0 children: 3(8%) 2-5 children: 6 (16%) Greater than 5 children: 28 (76%)	--	--	--

Table 1. [cont]

Study	Cases	Hospital	Patient Profile					
			Age	Gestation	Parity	Socio-economic Status	Family Planning History	Marital Status
3. Yusuf. 1997	156 induced abortions retrospective of one year period admissions	Lady Willingdon Hospital, Lahore	Ages 25-30: 58 (40%)	--	Grand multipara: 103 (66%)	Poor: 130 (83%) Non-Lahori Villagers/Townsmen: 78 (50%)	--	--
4. Najmi. 1998	72 induced abortions July 1992 to June 1996	Sir Ganga Ram Hospital, Lahore	Ages Less than 20: 6 (8%), 21-35: 48 (66.67%), 36-39: 13 (18.06%), Greater than 40: 5 (7%)	Up to 12 weeks: 39 (54%), 13-16 weeks: 18 (25%), 17 weeks or more: 15 (21%)	0 children: 3 (4%) 1-4 children: 35 (49%), 5-7 children: 27 (38%), 8 or More: 7 (10%)	Poor: 36 (50%), Lower Middle: 25 (35%), Upper Middle: 11 (15%)	Previous Abortions 0: 25 (35%), 1: 29 (40%), 2-4: 18 (25%)	--

Table 1. [cont]

Study	Cases	Hospital	Patient Profile					
			Age	Gestation	Parity	Socio-economic Status	Family Planning History	Marital Status
5. Chohan et. al. 1999	50 patients presenting history of induced abortion 1998 – year long	Lady Willingdon Hospital, Lahore.	Ages Less than 20: 6, (12%), 21-25: 13 (26%), 26-30: 19 (38%), 31-35: 3 (6%), Greater than 35: 9 (18%)	Less than 12 weeks: 37 (74%), 12-24 weeks: 13 (26%)	Less than 3 children: 13 (26%), 3-5 children: 33 (66%), Greater than 5 children: 9 (18%)	--	--	--
6. Mumtaz. 1999	11 induced abortion Nov. 1996 to Oct. 1997	Liaquat Medical. College, Jamshoro, Hyderabad	Ages 15-19: 3 (27%), 20-25: 3 (27%), 26-35: 5 (46%)	Less than 8 weeks: 8 (73%) Greater than 8 weeks: 3 (27%)	No Children: 3 (27%) 1-4 Children: 2 (18%) Greater than 5: 6 (55%)	--	--	Unmarried: 3 (27%)

Table 1. [cont]

Study	Cases	Hospital	Patient Profile					
			Age	Gestation	Parity	Socio-economic Status	Family Planning History	Marital Status
7. Khanum and Mirza. 2000	89 induced abortions retrospective study July 1999 to June 2000	Jinnah Hospital, Lahore	Mean age 31 yrs.	12 Weeks: 72 (81%)	Greater than 4: 67 (75%)	--	Previous History Of Induced Abortion: 10 (11%). Using Contraceptive : 29 (33%)	Married: 67 (75.3%)
8. Sultana et. al. 2000	Total cases: 384; 28 induced abortion cases May 1999 to May 2000	Abbasi Shaheed Hospital, Karachi	Majority of induced abortions were from ages 25-35	--	Majority of patients had 2-9 children	--	Spontaneous: 260 (68%), Missed Abortion: 96 (25%), Induced Abortion: 28 (7%)	--

Table 1. [cont]

Study	Cases	Hospital	Patient Profile					
			Age	Gestation	Parity	Socio-economic Status	Family Planning History	Marital Status
9. Rehan et. al. 2001	Women seeking abortion interviewed: 452 cases. Oct. to Dec. 1997	32 clinics in three provincial capitals of the country	Ages Less than 20: 15 (3%), 20-24: 53 (12%), 25-29: 98 (22%), 30-34: 121 (27%), Greater than 35: 165 (37%); Mean age: 32.3+- 7.5 years	1-4 weeks: 211 (47%), 5-8 weeks: 183 (40%), 9-12 weeks: 38 (8%), 13-16 weeks: 12 (3%), Greater than 16: 8 (2%)	0 children: 39 (8%), 1 children: 5 (1%), 2 children: 26 (6%), 3 children: 53 (12%), 4 children: 53 (12%), 5 children: 83 (18%), Greater than 5: 193 (43%)	--	Contraception Failure: 92 (20%). Accompanied by husbands (87%), Husband paid for abortion 93.6%	Married: 413 (91%), Unmarried: 39 (9%)
10. Akbar et. al. 2001	41 induced abortion Jan. 1999 to Dec. 1999	Jinnah Hospital, Allama Iqbal. Medical. College, Lahore	Ages Late teens: 11 (27%), 20-40: 30 (73%)	Less than 12 weeks: 32 (78%), Greater than 16 weeks: 9 (22%)	Nullipara: 6 (15%), Primagravidas : 3 (7%) Greater Than 4: 32 (78%)	--	--	Married: 37 (90%), Unmarried: 4 (10%)

Table 1. [cont]

Study	Cases	Hospital	Patient Profile					
			Age	Gestation	Parity	Socio-economic Status	Family Planning History	Marital Status
11. Gul. 2001	2,085 induced abortions over ten years	Lahore General Hospital, Lahore	Ages 12-20: 196 (9%) 21-30: 732 (35%), 31-40: 986 (47%), 41-45: 171(8%)	Less than 6 weeks: 752 (36%), 7-12 weeks: 1113 (53%)	Nullipara: 375 (18%)	--	--	--
12. Chaudhry and Iqbal. 2001	32 cases having septic induced abortion with renal failure (Oliguria). Jan. 1995 to Dec. 1997	Department of Gynaecology and Obstetrics, BV Hospital, Bahawalpur	Ages 16-20: 7 (22%), 21-30: 14 (44%), 31-40: 11 (34%),	--	1-2 children: 9 (28%), 3-5 children: 15 (47%), 5 children and above: 8 (25%)	--	--	--

Table 1. [cont]

Study	Cases	Hospital	Patient Profile					
			Age	Gestation	Parity	Socio-economic Status	Family Planning History	Marital Status
13. Sheikh et. al. 2002	From 930 ever-married females, 186 selected; 78 had abortion history, out of which 18 were induced. May to July 2000	A peri-urban community: Shah-di-Kot, Lahore	All ever-gravida females of reproductive ages 15-45	4-8 weeks: 9 (50%), 9-12 weeks: 6 (33%), 13-16 weeks: 2 (11%), 17-20 weeks: 1 (6%), 21-24 weeks: nil, 25-28 weeks: nil	Average Fertility <i>per woman</i> : 4.3 children	--	Contraceptive users: 7 (%) Non-users: 11 (%) Females using abortion as a measure of contraception: 12 (66.6%)	All married: 18 (100%)
14. Saeed. 2002	52 induced abortions, descriptive study Dec. 1999 to Dec. 2000	Federal. Government Services Hospital, Islamabad	Ages 21-35: 33 (64%), 36-40: 10 (19%)	--	2-5 Children: 16 (31%), Greater Than 5 Children: 30 (58%)	Poor: 41 (79%), Lower Middle: 9 (17%), Upper Middle: 2 (4%)	21 (40%) had contacted a doctor or family planning staff about pregnancy	--

Table 1. [cont]

Study	Cases	Hospital	Patient Profile					
			Age	Gestation	Parity	Socio-economic Status	Family Planning History	Marital Status
15. Ghazanfar and Ahmed. 2002	37 patients identified with induced abortion. April 2000 to April 2001	General. Surgical. Unit of Mayo Hospital, Lahore	Ages 15-25: 9 (24%), 26-35: 23 (63%), Above 36: 5 (14%); Mean age 27.5	--	--	Poor: 22 (60%), Middle-Class: 13 (35%), Upper-Class: 2 (5%)	--	--
16. Khaskheli. 2002	240 cases of abortion—all types. Jan. 1995 to Dec. 1996	Liaquat Medical. College Hospital, Hyderabad	Ages Under 20: 25 (10%), 20-25: 38 (16%), 26-30: 55 (23%), 31-35 60 (25%), 36-40: 45 (19%), Greater than 40: 17 (7%)	Less than 8 weeks: 65 (27%), 8-12 weeks: 122 (51%), 13-20 weeks: 53 (22%)	0-1 children: 25 (11%), 2 children: 42 (18%), 3 children: 53 (22%), 4 children: 52 (22%), 5 children and above: 68 (28%)	--	--	--

Table 1. [cont]

Study	Cases	Hospital	Patient Profile					
			Age	Gestation	Parity	Socio-economic Status	Family Planning History	Marital Status
17. Bhutta et. al. 2003	93 induced abortions Jan. 1997 to Sept. 1998	Jinnah Postgraduate Medical Centre, Karachi	Ages 26-35: 47 (51%)	Less than 8 weeks: 40 (43%), 9-14 weeks: 36 (39%) 15-20 weeks: 13 (14%), Greater than 20 weeks: 4(4%)	--	--	--	Unmarried: 9 (10%), Married Grand Multipara: 47 (50%), Nullipara: 13 (14%)
18. Korejo et. al. 2003	57 induced abortion review of patient cases Jan. 1999 to June 2001	Jinnah Postgraduate Medical Centre, Karachi,	Ages 21-30: 48 (84%)	Less than 8 or under in 20 weeks: 20 (35%), Less than 22 weeks: 4 (7%)	--	All were from low socio-economic status	No previous use of contraception: 43 (76%) Husbands' support for termination: 29 (51%) Voluntary termination 26: (46%)	Unmarried: 4 (7%), Grand multipara: 24 (42%)

Table 1. [cont]

Study	Cases	Hospital	Patient Profile					
			Age	Gestation	Parity	Socio-economic Status	Family Planning History	Marital Status
19. Naib, Jamila et. al. 2004	28 septic induced abortion cases over one year 2001 to 2002	Khyber Teaching Hospital Peshawar	Ages 15-25: 5 (18%), 26-35: 8 (28%), 36-45: 15 (54%)	--	1-5 children: 6 (22%), 5-8 children: 8 (29%), 8-10 children: 9 (32%), 10-15 children: 5 (18%)	--	--	--
20. Tabassum et. al. 2004	40 patients; those who had abortions at periphery needed general surgical intervention in form of laparotomy. July 2001 to Aug. 2004	Surgical. Unit I, Sheikh Zayed Hospital, Rahim Yar Khan	Ages 15-25: 10 (25%), 26-35: 8 (20%), 36-45: 22 (55%)	--	--	--	Previous Abortions: 10 (25%), Laporotomy: 27 (68%)	Unmarried: 10 (25%), Married: 30 (75%)

Table 1. [cont]

Study	Cases	Hospital	Patient Profile					
			Age	Gestation	Parity	Socio-economic Status	Family Planning History	Marital Status
21. Ashraf et. al. 2004	168 induced abortions Jan. to Dec. 2003	Lahore General Hospital, Lahore	Ages Below 20: 12 (7%), 20-30: 96 (57%), 30-40: 60 (36%)	Less than 6 weeks: 24 (14%), 7-12 weeks: 96 (57%), Greater than 12 weeks: 48 (29%)	0 children: 12 (7%), 1-4 children: 48 (29%), Greater than 5 children: 108 (64%)	--	--	--
22. Hussain et. al. 2004	200 cases of induced abortion identified 1999 to 2003	Jinnah Postgraduate Medical Centre, Karachi	Ages 26-40: 100 (50%), 15-25: 80 (40%) Above 40: 20 (10%)	--	Greater than 3 children: 56 (28%), 3-5 children: 64 (32%), Greater than 5 children: 80 (40%),	--	--	Illegitimate pregnancy: 10 (5%)

Table 1. [cont]

Study	Cases	Hospital	Patient Profile					
			Age	Gestation	Parity	Socio-economic Status	Family Planning History	Marital Status
23. Ali, Naqvi, Zahoor and Choudhry. 2004	21 patients were included in the study after illegal instrumentation of uterus for abortion January 2002 to October 2004	North Surgical Ward, Mayo Hospital, Lahore	Ages 12-19: 4 (16%) 20-30: 11 (52%) 31-40: 6 (29%)	--	--	--	--	Married: 15 (71%) Unmarried: 6 (29%)
24. Madhu-Das and Srichand. 2006	Retrospective analysis of 32 induced abortion patients 2001 to 2004	Liaquat University Hospital, Hyderabad	Ages Less than 20: 9 (28%), 20-40: 21 (66%), Greater than 40: 2 (6%)	--	0 children: 9 (28%), 2-4 children: 4 (13%). Greater than 5 children: 19 (59.37%)	--	--	--

Table 1. [cont]

Study	Cases	Hospital	Patient Profile					
			Age	Gestation	Parity	Socio-economic Status	Family Planning History	Marital Status
25. Siddique and Hafeez. 2007	59 induced abortions admitted Aug. 2001 to July 2002	Jinnah Hospital, Lahore	Ages 25-34: 44 (73%); mean age was 29 years	Less than 6 weeks: 14 (24%), 6-8 weeks: 21 (36%), 9-12 weeks: 13 (22%), 13-20 weeks: 9 (15%), Greater than 20 weeks: 2 (3%)	Greater than 4: 30 (50%); mean was 4 children	--	Using contraception before conceiving: 32 (54%), <i>Not</i> using contraception before conceiving: 27 (45.8%). Directly related to education especially secondary educational level.	Married: 56 (94.9%)

Table 1. [cont]

Study	Cases	Hospital	Patient Profile					
			Age	Gestation	Parity	Socio-economic Status	Family Planning History	Marital Status
26. Gilani and Azeem. 2005 ³	100 married women living in urban Peshawar with induced abortions were interviewed	Khyber Teaching Hospital, Peshawar	--	--	1-4 children: 15 (15%), Greater than 5: 85 (85%)	87 (87%) belonged to low socio-economic class	Knowledge of contraceptives: 60 (60%), Use of contraceptive: 80 (80%), Removal of IUCD due to pain and bleeding: 35 (35%), Forgot/Stopped pills: 20 (20%), No precaution: 10 (10%), Condom failure: 10 (10%) Conception despite use of contraceptives: 20 (20%), Repeated induced abortions: 15 (15%)	--

³ This is not a medical study, but is based on data collected by doctors through a hospital. Hence the findings have been included in both medical and community tables.

Table 1. [cont]

Study	Cases	Hospital	Patient Profile					
			Age	Gestation	Parity	Socio-economic Status	Family Planning History	Marital Status
27. Rehman et. al. 2007	22 patients with bowel injuries (due to induced abortion) studied. Dec. 2002 to Dec. 2005	Department of Gynecology and Obstetrics, Civil Hospital, Karachi	Ages ranged from 14-41 years; mean age 26.86 years	6-8 weeks: 7 (32%), 9-10 weeks: 7 (32%), 11-12 weeks: 5 (23%), 12-14 weeks: 3 (13%),	Most women had 5 or more children.	--	--	Married: 15 (68%), Unmarried 7 (32%)

Table 2. Abortion Providers, Methods and Reasons—Based On Medical Studies

Study	Abortion Provider	Abortion Methods	Reasons
1. Zaidi, Mastoor, Jaffry and Parveen. 1993.	Dais: 41 (51%) Nurses: 3 (3%) Doctors: 19 (23%) Self-induced: 2 (3%) Undisclosed: 16 (20%)	First Study: Instrumentation: 15 Herbal Stick: 8 Drugs and Others: 6 Not known: 12	--
2. Tayyab and Samad. 1996.	Untrained, unqualified Dais: 13 (35%) TBAs/Nurses/LHVs: 10 (27%) Doctors: 14 (38%)	Instrumentation: 23 (62%) Herbal Stick: 7 (19%) Drugs and Others: 7 (19%)	--
3. Najmi. 1998.	Self: 1 (1%), TBAs: 31 (43%) LHVs: 26 (36%) Doctors: 14 (20%)	Instruments: 46 (64%) Herbal sticks: 6 (8%) Laminaria Tent: 1 (1%) Medicines: 13 (18%) Unknown: 6 (8%)	Most women said they were asked by husbands to terminate unwanted pregnancy
4. Chohan. 1999	--	Instruments: 30 (60%) IUCD: 5 (10%) Laminaria Tent 4 (8%) Cotton Swabs 2 (4%) Oxytocin 9 (18%)	--
5. Mumtaz. 1999	Dais: 5 (46%) Doctors: 3 (27%) Self: 2 (18%) LHVs: 1 (9%)	Instruments: 7 (64%) Herbal sticks and locally placed drugs: 4 (36%)	--
6. Khanum and Mirza. 2000	LHVs or Dais, few by Doctors	--	Limit no. of children: 67 (75.3%), Socio-economic reason: 6 (6.7%), Previous baby too small: 5 (5.6%), Illegitimate: 4 (4.5%) Other: 5 (5.5%)

Table 2. [cont]

Study	Abortion Providers	Abortion Methods	Reasons
7. Sultana et. al. 2000	TBA/ Untrained Unskilled Person: 20 (71%) Nurses: 6 (22%) Doctors: 2 (7%)	--	All patients initially gave misleading history and denied induced abortion. Later reasons were given as either younger child too small or grand multiparity.
8. Akbar et. al. 2001	Dais: 21 (51%) LHVs: 5 (12%) Nurses: 12 (29%) Doctors: 3 (8%)	Mostly herbal sticks, some cotton swabs in drugs.	--
9. Gul. 2001	Mostly unskilled, even 863 (41.39%) of evacuations done by untrained health personnel	Stick/Laminaria Tent: 956 (45.86%) D&C by untrained health personnel: 863 (41.39%) Cotton Swabs: 108 (5.17%) Hair Pin or Knitting Stick: 89 (4.26%) Warm Oil: 69 (3.31%)	Unwanted pregnancy including fear youngest child too small: 822 (39.42%) Patient's unmarried, widowed or divorced: 724 (34.72%) Patients who could not afford this pregnancy: 539 (25.85%)
10. Rehan and Inayatullah. 2001 ⁴	--	--	Too Many Children: 291(64.4%) Contraceptive Failure: 92(20.3%) Premarital Affairs: 39 (1.3%) Medical Reasons: 24 (5.4%) Extramarital Affairs: 6 (1.3%)
11. Sheikh et. al. 2002	Dais: 11 (61%) LHVs: 5 (28%) Doctors: 2 (11%)	Instruments: 8 (44%) 6 Vaginal Meds: 6 (33%) 3 Oral Meds: 3 (17%) IUCD: 1 (6%)	--
12. Ghazanfar and Ahmed. 2002	Dais, LHVs	Instrumentation	--
13. Saeed. 2002	Unskilled: 18 (34.6%), Semi Skilled TBAs, LHVs and Nurses: 34 (65.38%)	Instrumentation: 32 (61.53%) Sticks: 10 (19.23%) Drugs And Injections: 10 (19.23%)	11 (22%) of women in study gave history of using some contraception and its failure.

⁴ This is not a medical study, but is based on patients visiting clinics. Hence the findings have been included.

Table 2. [cont]

Study	Abortion Providers	Abortion Methods	Reasons
14. Rehan. 2003 ⁵	--	--	Unwanted Pregnancy: 58 (55%) Contraceptive Failure: 25 (24%) Medical Reasons: 16 (15%) Premarital Affairs: 5 (5%) Extra Marital Affair: 1 (1%)
15. Bhutta et.al. 2003	Nurses or LHVs: 33 (36%) Dais: 30 (32%) Doctors: 28 (30%) Self: 2 (2%)	Instrumentation: 60 (65%) Followed by Vaginal Potion: 22 (17%) Oral Meds: 17 (11%) Laminaria: 11 (6%) Injections: 6 (2%) IUCD, Intra-cervical Catheter, Suction Evacuation: 2 Each (6%)	Majority of patients (50%) were married grand multipara who did not want more children.
16. Korejo et.al. 2003	Dais: 25 (44%) LHVs: 5 (9%) Nurses: 18 (31%) Doctors: 9 (16%)	Instrumentation of Uterus: 27 (47%) Cervical Stick Insertion: 9 (16%) Oxytocin Agent: 14 (25%) Indeterminate: 07 (12%)	High Parity: 27 (46%) Financial Problems: 12 (21%) Young Baby: 7 (12%) Husband Died: 4 (7%) [Contraceptive failure only in 3.5% who used IUCD]
17. Naz and Begum. 2004	Unqualified and Unskilled Personnel	--	Unmarried: 10 (10%) Complete Family: 39 (38%) Small Last Born: 14 (14%) Contraceptive Failure: 12 (12%) Contraceptive Unaware: 22(21%) Marital Disharmony: 5 (5%)
18. Ali, Naqvi, Zahoor and Choudhry. 2004	Lady Doctors: 6 (28.6%) Remaining carried out by dais, nurses or LHVs who were not designated workers.	--	--
19. Ashraf et.al. 2004	Untrained persons	D&C / Instrumentation: 96 (57%) Cotton Swab: 24 (14%) Oral Or Injectable: 48 (29%)	Unwanted pregnancy: 72 (43%) Younger child too small: 36 (21%) Social Problem (poverty): 60 (36%)

⁵ Ibid.

Table 2. [cont]

Study	Abortion Providers	Abortion Methods	Reasons
20. Hussain et.al. 2004	Nurses: 80 (40%) Dais: 65 (33%) Doctors: 30 (15%) LHVs: 20 (10%) Self: 5 (2%)	D&E: 100 (50%) Vaginal sticks (laminaria tents): 40 (20%) Vaginal Tablets: 20 (10%) Herbal Meds: 10 (5%) Vaginal Tabs followed by D&C: 10 (5%) Vaginal Sticks followed by D&C: 8 (4%) Injection Oxytocin: 7 (3.5%) Anal tablets: 5 (2.5%)	Completed Family: 106 (53%), Cannot Afford More Children: 35 (17.5%) Small Lastborn Child: 30 (16%) Illegitimate Pregnancy: 10 (5%) Differences w/ Husband: 9 (4.5%) Unknown: 10 (5%)
21. Naib et. al. 2004	Unqualified TBAs and LHVs	IUCD, stick, laminaria tent: 8 (29%), Injections and vaginal pessaries: 4 (14%) D&C or attempt for SI: 16 (57%)	--
22. Gilani and Azeem. 2005	Doctors/ Family Planning Staff: 35 (35%), Unqualified and Unskilled Personnel: 65 (65%)	Instrumentation 70 (70%) Inter Vaginal Drugs: 22 (22%) Sticks: 8 (8%)	Family Size Complete: 78 (78%) Poor Maternal Health or Last Child Too Young: 22 (22%)
23. Madhu-Das and Srichand. 2006	Lady doctors: 19 (60%), LHVs: 10 (31.25%), TBAs: 03 (9.37%)	--	--
24. Siddique and Hafeez. 2007	Doctors: 9 (15%) LHVs: 26 (61%) (<i>44%</i>) ⁶ , <i>Dais</i> : 24 (40.6%)	D&C: 28 (47.45%) Herbal Sticks: 21 (35.59%) Medication: 10 (16.94%)	Financial Problems 24: (40.6%) Working Women Could Not Afford Time Off: 18 (30.57%) Contraceptive Failure: 11 (18.6%) Sick and Weak: 3 (5.08%) Unmarried: 3 (5.08%)
25. Rehman et.al. 2007	Doctors: 4 (18%) Unqualified and Unskilled Personnel: 18 (82%)	--	--

⁶ There was an error in the original study. The figure in italics is our correction.

Table 3. Unsafe Abortion-Related Mortality Based on Medical Studies of General Induced Abortion

Study	Cases	Hospital	Causes of deaths	Mortality Rate
1. Zaidi, Mastoor, Jaffry and Parveen. 1993	81 women with a history of illegally induced abortion were included in the study. 1 ST study (prospective): Jan. 1977 to Sep. 1978 2 nd Study (retrospective) Nov. 1990 to Oct. 1991	Dept. of Obstetrics and Gynaecology, Jinnah Postgraduate Medical Center.	Mortality Rate: 1 st study: 24% 2 nd study: 7.5% Overall mortality rate: 16% Contribution of induced abortion to maternal mortality: 12.6%	16%
2. Tayyab and Samad. 1996	37 patients identified with illegally-induced abortions were interviewed and examined. Jan. 1992 to Dec. 1994	Unit II, Dept. of Obstetrics and Gynaecology, Civil Hospital Karachi.	Total 60 maternity-related deaths, of which 9 were caused by induced abortion. Induced abortions accounted for 15% of total maternal deaths, and 25% of these 37 cases.	24.3%
3. Yusuf. 1997	156 induced abortions retrospective of one year period admissions	Lady Willingdon Hospital, Lahore	34 deaths due to illegal induced abortion	21.79%
4. Najmi. 1998	72 induced abortions July 1992 to June 1996	Sir Ganga Ram Hospital, Lahore	1 multiple perforations 1 septicemia 1 renal shutdown 1 cardiac failure	5.5%
5. Mumtaz. 1999	11 induced abortions Nov. 1996 to Oct. 1997	Liaquat Medical College, Jamshoro, Hyderabad	3 septic induced abortions	27.27%
6. Khanum and Mirza. 2000	89 induced abortions retrospective study July 1999 to June 2000	Jinnah Hospital, Lahore	3 septicemia	3.3%
7. Sultana et. al. 2000	28 induced abortion cases May 1999 to May 2000	Abbasi Shaheed Hospital, Karachi	2 septic shock, 1 in sepsis, 1 multiple gut injuries with generalized peritonitis	14.28%

Table 3. [cont.]

Study	Cases	Hospital	Causes of deaths	Mortality Rate
8. Akbar et. al. 2001	41 induced abortion Jan. 1999 to Dec. 1999	Jinnah Hospital, Allama Iqbal Medical College, Lahore	1 septic shock.	2.43%
7. Gul. 2001	2,085 induced abortions over ten years	Lahore General Hospital, Lahore	85 deaths Causes not given	4.17%
9. Saeed. 2002	52 induced abortions, descriptive study Dec. 1999 to Dec. 2000	Federal Government Services Hospital, Islamabad	6: multiple gut perforations, septicemia, renal shut down, liver failure	11.5%
10. Bhutta et. al. 2003	93 induced abortions Jan. 1997 to Sept. 1998	Jinnah Post-Graduate Medical Centre, Karachi	9: 5 septicemia, 3 bowel injury, 1 dead on arrival	10%
11. Korejo et. al. 2003	57 induced abortion review of patient cases Jan. 1999 to June 2001	Jinnah Post-Graduate Medical Centre,	6: septicemia, multiple ilial perforations, renal shutdown, disseminated intravascular coagulation	10.5%
12. Ashraf et. al. 2004	188 induced abortions Jan. to Dec. 2003	Lahore General Hospital, Lahore	Most commonly septic induced abortion leading to pulmonary embolism, renal failure, septic shock	7.1%
13. Hussain et. al. 2004	200 cases identified as induced abortion 1999 to 2003	Jinnah Post-Graduate Medical Centre, Karachi	19 deaths	9.5%
14. Madhu-Das and Srichand. 2006	Retrospective analysis of 32 induced abortion patients 2001 to 2004	Liaquat University Hospital, Hyderabad	5 septic shock 2 hepatorenal failure	21.87%
15. Siddique and Hafeez. 2007	59 induced abortions admitted Aug. 2001 to July 2002	Jinnah Hospital, Lahore	3 deaths Causes not given	5.06%

Table 4. Post-Abortion Complications and Mortality Rates Based on Medical Studies of Severe Cases

Study	Cases	Hospital	Complications
1. Chaudhry and Iqbal. 2001	32 cases having septic induced abortion with renal failure (oliguria) Jan. 1995 to Dec. 1997	BV Hospital, Bahawalpur	Peritonitis induced abortion, high grade fever, pussy discharge per vaginum with oliguria/anuria. All patients very toxic, high fever, tachycardia, tachypnoea. Dehydrated, vomiting, abdominal tenderness, generalized peritonitis, paralytic ileus and oliguria. Two patients with vesico vaginal fistulae and foul vaginal discharge. Laparotomy and dialysis carried out in poor prognosis cases. 30 patients 2 deaths after laparotomy Mortality Rate: 6.25%
2. Ghazanfar and Ahmed. 2002	37 patients presented to emergency department with diagnosis of colonic trauma caused by attempted induced abortion. April 2000 to April 2001	Mayo Hospital, Lahore	Wound infection (13) Intra-abdominal abscess (4) respiratory complication (3) deep venous thrombosis (2) wound dehiscence (2) septicemia death (3) Almost all patients presented with abdominal pain, abdominal tenderness, abdominal distensions and absent bowel sounds. 7 had bleeding p/v. All injuries in these cases restricted to sigmoid colon. When portion of the gut is missing treatment options limited. Abdominal pain, bleeding and fever, blood in stools, nausea, vomiting, generalized peritonitis and even shock. Investigations revealed that 168 (70%) of the women had haemoglobin less than 10g/dl Mortality Rate: 8.1%
3. Tabassum et. al. 2004	40 patients who underwent abortions at periphery and needed general surgical intervention in form of laparotomy. July 2001 to August 2004	Sheikh Zayed Hospital, Rahim Yar Khan	<u>Presentation</u> All 40 had sepsis, peritonitis and p/v bleed 5 had something coming out of vagina (intestine), 13 intestinal obstruction, 8 shock, 1 urinary leakage on removal of catheter. <u>Operative findings</u> : 40 severe peritonitis, 35 perforated uterus without gangrene, 5 gangrenous uterus, 5 fetus outside uterus, 13 gangrenous/perforated small gut, 5 perforated large gut, 3 rectal injury, 1 urinary bladder injury. Severe morbidity 35, mortality 5 Mortality Rate: 12.5%

Table 4. [cont]

Study	Cases	Hospital	Complications
4. Naib, Jamila et. al. 2004	Review of 28 septic induced abortion cases over one year 2001 to 2002	Khyber Teaching Hospital, Peshawar	At admission: Haemorrhage 10, sepsis 12, visceral injuries 6 10 (35.7%) uneventful recovery. 16 developed complications: anemia, infections, RTI, UTIs, disseminated intra vascular coagulation, renal shut down. Stayed up to 16 days in hospital. One dialysed during recovery. Mortality Rate: 2 deaths (irreversible septic shock) or 7.14%
5. A. Malik. 2004	A typical case of induced abortion, resulting in severe bowel injury . 35 year old woman gravida 8, para 7+0	King Edward Medical College, Lahore	Severe bleeding and lower abdominal pain prompted referral to hospital. Exam showed her to be thin and severely anemic, extremely dehydrated. Diagnosis of uterine perforation with bowel injury.
6. Naz and Begum. 2004	102 patients who presented with septic induced abortion . (1.69% of total patients) Jan. 2003 to Dec. 2003	Jinnah Hospital, Lahore	Pyrexia presentation considered sign of septic induced abortion. All those who presented with pyrexia, pain in abdomen, vaginal bleeding to acute abdomen, shock. <u>Clinical presentation:</u> 38 vaginal bleeding, 58 purulent discharge, 24 acute abdomen, 13 shock, 7 anuria (referred to urology dept) <u>Interoperative findings:</u> out of 24, 11 only uterine perforation, 13 uterine perforation with intestinal injury or pus in abdomen or foreign body. Mortality Rate: Out of 102 patients, 12 (11.76%) died due to septicemia
7. Ali, Naqvi, Zahoor and Choudhry. 2004	21 patients were included in the study after illegal instrumentation of uterus for abortion Jan. 2002 to Oct. 2004	North Surgical Ward, Mayo Hospital, Lahore.	-- Mortality Rate: 1/21 or 4.76% 1 patient died in post operative period.

Table 4. [cont]

Study	Cases	Hospital	<u>Complications</u>
8.Anjum Rehman et al. 2007	22 patients presented with bowel injuries Prospective descriptive study Dec. 2002 to Dec. 2005	Civil Hospital, Karachi	<u>Timing of presentation:</u> 4 reported less than 24 hrs after termination or injury, 3 at 24-48 hrs, 9 at 03-09 days and 6 at more than 09 days. 6 cases (27.3%) in advanced degree of shock. 2 cases had small gut with mesentery pulled out of vagina (mistaken for cord?) and later died. 14 in varying degrees of anemia, tachycardia, toxaemia, peritonitis, distension, hemorrhage and oliguria 7 developed septicemia out of which 4 died.
			Mortality Rate: 6 / 22 = 27.27%

Table 5. Overview of the Proportion of Abortion-Related Complications Attributed to Induced Abortion Based on Medical Research

Study	Sampling Method	Proportion of Abortion-Related Cases Attributed to Induced Abortion
1. Population Council. 2003. <i>Unwanted Pregnancy and Post-Abortion Complications in Pakistan</i> . ⁷	Interviews of 328 women who visited 50 public health facilities and 10 NGOs for post-abortion complications. Respondents self-reported if the abortion was induced or spontaneous. ⁸	27%
2. RS Najmi.1998. <i>Complications Attributed to Illicit Abortions</i> .	Prospective study of 18,978 admissions to an ob/gyn ward in a hospital. Respondents were labeled as having an induced abortion if they self-reported it. <i>Prospective, Cross-Sectional Study</i>	3.6%
3. Mumtaz, Firdous. 1999. <i>Maternal Mortality in Induced Abortion</i> .	Out of 400 women admitted to a hospital for abortion-related complications, respondents self-reported if the abortion was induced. <i>Prospective, Cross-Sectional Study</i>	2.7%
4. Sultana, Azra et. al. 2000. <i>Traditional Birth Attendants Induced Abortion-Increased Maternal Morbidity and Mortality</i> .	1152 women in the OPD with ob/gyn issues were interviewed, out of whom 384 had history of abortion. Respondents self-reported if they had an induced abortion. <i>Prospective, Longitudinal Study</i>	7.2%
5. N. Akbar et. al. 2001. <i>Recurrent Induced Abortion – Still a Prevalent Problem</i> .	431 patients with abortion related complications evaluated at the ob/gyn department of a hospital. Patients' cases were reviewed and they were interviewed to determine whether they had had an induced abortion. <i>Prospective, Cross-Sectional Study</i>	9.5%
6. Asma Gul. 2001. <i>Maternal Morbidity and Mortality Associated with Criminally Induced Abortion – A Ten Years Review at Lahore General Hospital</i> .	The records of 15,267 patients admitted with abortion-related complications at an ob/gyn ward were examined. The method of abortion was determined through a detailed history of the patient and physical examination. <i>Retrospective Study</i>	13.7%

⁷ This is not a medical study, but has been included because it is based on patients visiting health services.

⁸ Although the study included 448 women who were either seeking treatment for post-abortion complications or seeking an induced abortion, we have limited the analysis to the 328 women who were seeking treatment for post-abortion complications, as we are looking at the number of hospitalizations due to post-abortion complications.

Table 6. Profile of Abortion Seekers, Abortion Rate, Post-Abortion Complication Rate based on Community Studies

Study	Type of community	Profile of Abortion Seekers	Abortion Rate ⁹	PAC Rate
1. Awan, A. 1969. <i>Provoked abortions amongst 1447 married women.</i>	1447 pregnant women in urban community followed throughout their pregnancies	4431 women “exposed” to pregnancy; 1447 pregnant women were chosen as respondents Parity Primagravida: 13.8% 2-5 gravida: 46.4% 6 & higher gravida: 39.8% Education Illiterate: 78% Under-matric: 17% Spouse—illiterate or under-matric: 71% Rate of attempted induced abortion: 2.74% Abortion carried out mostly by non-scientific, unqualified professionals	5.7% of all pregnancies ended as induced abortions [Fetus loss rate = 57 3 / 1000 pregnancies at 6 weeks gestation]	--
2. Maternity and Child Welfare Association of Pakistan. 1993. <i>Reproductive morbidity in an urban community of Lahore.</i> March 1992 to Feb. 1993	Data collected on reproductive morbidity in an urban community of Lahore. 2991 women whose pregnancies were followed.	--	149 women, or 4.9%, admitted terminating their pregnancies. (149/2,991)	--
3. Awan, A. and M. A. Parvez. 1999. <i>Abortions in rural community.</i> Lahore July 1997 to Feb. 1999	Longitudinal study. 4,133 married women of reproductive age from 22 villages. 1576 pregnant women followed.	--	4.2% (66/1,576) had pregnancies terminated.	--

⁹ Abortion rate is the average no of abortions experienced by a woman during her child bearing years, calculated by multiplying the number of abortions reported during one year period woman aged 15-49 by 34 (the number of years between 15 and 49),

Table 6. [cont]

Study References and Research Period	Type of community	Profile of Abortion Seekers	Abortion Rate	PAC Rate
<p>4. Fikree, Rizvi, Jamil and Husain. 1996. <i>The emerging problem of induced abortions in squatter settlements of Karachi.</i></p> <p>Karachi December 1994</p>	<p>Study of women in Orangi and Azam Basti settlements</p>	<p>Average age just over 40 yrs. Abortion seekers average of 3.7 living children at time of first induced abortion.</p> <p>Illiterate women: 60% Educational attainment skewed in favor of husband compared to the wife</p> <p>40% were presently using contraceptive methods 80% had knowledge of FP methods Commonly used FP methods: Pills, Condoms, IUCDs, Injections</p> <p>Advice sought from: Husbands (23.3%) Health Workers (26.7%) Neighbors (20%) 50% took final decision on their own.</p> <p>Reasons for clandestine abortion: Economic reasons: 66.7% Short pregnancy interval: 56.7% Complications in prior pregnancies: 20%</p> <p>Abortion-providers: TBA (49%) Physicians (29%) Self-Induction (18%)</p>	<p>11.7% abortions among 283 pregnancies reported by 34 women.</p> <p>41% of 34 women interviewed reported at least one induced abortion</p>	<p>16 (53.3%) of woman women reported mild to severe post abortion illness.</p> <p>4 (13.3%) reported fever and/or foul-smelling discharge,</p> <p>2 developed sepsis and were admitted to hospital.</p> <p>16 reported PA illnesses</p> <p>Weakness (43%) Blood loss (33.3%) Death (20%) Infertility (10%)</p> <p>Mortality Rate: 20% of 34 women.</p>

Table 6. [cont]

Study References and Research Period	Type of community	Profile of Abortion Seekers	Abortion Rate	PAC Rate
<p>5. (a) Jamil, Sarah. 1998. <i>Determinants of Unsafe Abortion in 3 Squatter Settlements of Karachi</i></p> <p>(b) Saleem and Fikree. 2001. <i>Induced abortions in low socio-economic settlements of Karachi, Pakistan: rates and women's perspectives</i></p> <p>(c) Saleem and Fikree. 2005. <i>The quest for small family size.</i></p> <p>Karachi June to Aug. 1997</p>	<p>Cross-sectional survey</p> <p>1,214 ever married women in 3 squatter settlements</p> <p>100 women who reported ever seeking induced abortion during their reproductive history (1,114 never sought abortion)</p> <p>50 women w/ history of induced abortion in last 3 years</p>	<p><i>From Saleem 1998.</i> Perception about most common methods: D & C: 31% Home-made oral concoction: 17% Eating food with hot properties: 13%</p> <p>Contraceptive prevalence rate among abortion seekers was 40%.</p> <p>This study reveals literate women at higher risk of seeking induced abortion.</p> <p>Grand multigravidity a strong predictor of induced abortion</p> <p><i>From Saleem and Fikree 2001.</i> Illiterate respondents: 60% Illiterate husbands: 30% <u>Reasons for abortion:</u> -- For those who'd never sought an abortion: Husband Unemployed: 29.5% Poverty: 20.7% --For those who'd had an induced abortion: "Short Spacing": 45% Too many children: 15% Ill-health of mother: 13% <u>Methods used:</u> Dilatation and Curettage (61.8%), Allopathic medicine (11.2%), Sticks (7.9%), Drips and Injections (7.9%)</p>	<p>0.86.8 total abortion rate</p> <p>Induced Abortion Rate: 25.5 per 1000</p>	<p>Women using abortion as a method for birth spacing and limiting family size, despite some knowledge of severity of PACs.</p> <p>68.5% including heavy bleeding and fever</p>

Table 6. [cont]

Study References and Research Period	Type of community	Profile of Abortion Seekers	Abortion Rate	PAC Rate
<p>6. (a) Fikree, Saleem and Sami. 2005. <i>A Quality of Care Issue</i></p> <p>(b) Fikree, Saleem and Sami. 2002. <i>Gender Perspectives on Induced A bortion</i></p> <p>Karachi June to Aug. 2001</p>	<p><i>From Fikree et. al. 2005.</i></p> <p>Assess quality of family planning services, sampling 500 men and 500 women</p> <p><i>From Fikree et. al. 2002.</i></p> <p>Study in two urban low income settlements in Karachi (Azam Basti and Chanesar Goth)</p> <p>54 women who successfully terminated pregnancy; 23 men.</p>	<p><i>From Fikree et. al. 2005.</i></p> <p>Methods: Condoms (Men: 31%, Women: 23%), Withdrawal (Men: 19%, Women: 19%), Oral Pills (10%), IUD (5%), Injectables (Men: 9%, Women: 11%).</p> <p>Users tended to be more aware about methods than were non-users.</p> <p>Women were much less informed about use of condoms (5%) compared to men (73%).</p> <p>Men seek termination for economic reasons and women do so to limit family size.</p>	<p>Method failure main reason for the unplanned pregnancy and discontinuation are problems</p> <p>Knowledge of PACs among communities is poor.</p> <p>Men generally support their wives for induced abortion but not family planning use. (2002:63)</p>	<p>25 (46.4%) women reported PAC, 9 (39.1%) men.</p> <p>Similar type of PACs reported, i.e. heavy vaginal bleeding and infection. Miler complications included lower abdominal pain, menstrual irregularity, weakness, palpitation and infertility</p>

Table 6. [cont]

Study References and Research Period	Type of community	Profile of Abortion Seekers	Abortion Rate	PAC Rate
<p>8. Sheikh et. al. 2002 <i>Induced Abortion (Reasons and Practices)</i>.</p> <p>Lahore May to July 2000</p>	<p>Peri-urban community: Shah-Di-Khoi, Lahore</p> <p>186 married, ever-gravid females were selected randomly from a population of 930</p>	<p>All married, ever-gravid females from reproductive age-group 15-45.</p> <p>Average Fertility: 4.3 Contraceptive User Rate: 65%</p> <p>Abortion provider (among induced abortions): Dais (61%) LHV (28%) Doctors (11%)</p> <p>Place where induced abortion performed: Home (50%) Dai's Clinic (11%) Doctor's Clinic (11%) LHV's Clinic (28%)</p> <p>Method for induced abortion: Instruments (44%) Vaginal Medicine (33%) Oral Medicine (17%) IUCD (6%)</p>	<p>55 of 186 respondents had experienced 78 abortions (41.9%) Spontaneous abortions (76.9%) Induced, unsafe abortions (18%)</p> <p><u>Total abortion rate</u>: 90/1000 pregnancies, or 419.35/1000 women of reproductive age group <u>Induced abortion rate</u>: 22.4/1000 pregnancies, or 96.77/1000 women of reproductive age</p>	<p>--</p>
<p>9. Rahat, Naveed-I et. al. 2003. <i>Unwanted Pregnancy and Post-Abortion Complications in Pakistan: Choices of Contraception versus Abortion: Insights from Women, Husbands and Health Care Providers</i></p> <p>Research period not given</p>	<p>60 women selected from 7 communities of rural and urban regions of Punjab and Sindh, who have had an induced abortion in the recent past.</p> <p>This study also includes 27 in depth interviews with health care providers (safe and unsafe) in rural and urban</p>	<p>Women in all the communities were involved in income generating activities and were not just housewives.</p> <p>In rural sites they participated in agricultural activities and in urban communities they worked as domestic servants, labourers in mills and factories, nurses or were involved in doing embroidery work.</p> <p>Most of them were illiterate and very few of them had the opportunity of gaining a few years of schooling.</p> <p>In over half the cases (53%) decision for induced abortion was made by both husband and wife. In 42% of cases only wife decided.</p>	<p>--</p>	<p>20 / 36 respondents suffered from PACs, linked to method as follows: <u>MVA</u>: Irregular menses, incomplete abortion, infertility, heavy bleeding <u>D&C</u>: bleeding, swelling in the uterus, weakness <u>IUD</u>: Pressure on uterus, irregular bleeding <u>Sticks</u>: Excessive bleeding, fever <u>Capsule and</u></p>

Table 6. [cont]

Study References and Research Period	Type of community	Profile of Abortion Seekers	Abortion Rate	PAC Rate
Rahat. 2003 (cont)	communities	and 5% another relative decided.	--	<u>Injection</u> : Heavy bleeding, sickness, blurred vision <u>Tablets</u> : Heavy bleeding, placenta did not eject
10. Gilani and Azeem. 2005. <i>Induced abortion: a Clandestine Affair</i> Research period not given	100 married women in urban Peshawar who had induced abortion Study conducted at Khyber Medical Hospital, Peshawar.	Parity: 1-4 children: 15 (15%) 5 or more: 85 (100%) 87% belonged to low socio-economic class 85% sought formal permission from husband <u>Reason for current pregnancy</u> : Removed IUCD due to pain and bleeding: 35 Forgot/stopped pills: 20 Did not take precaution: 10 Condom failure: 10 <u>Methods</u> : Instrumentation: 70 Intravaginal drugs, sticks: 22 Drugs injection: 8	--	PAC rate: 45/100 or 45% 45 had some complication, 85 had parity of five or more children, 99 felt religion did not permit abortion Menstrual irregularities: 20 Hemorrhage: 15 Chronic pelvic pain: 10
11. Arif, Shafique, and Iram Kamran, 2007. <i>Exploring the Choices of Contraception and Abortion Among Married Couples in Tret, Rural Punjab, Pakistan.</i> Tret, Punjab April to July 2006	Community, Tret, in Punjab, about 26 km from Islamabad. Site chosen because not urban and not entirely remote rural In-depth interviews: 7 with men, 10 with women, 2 focus group discussions	Married women of reproductive age, with at least 4 living children. They were rural women, mean age 35 years and mean age at marriage 16 years. On average, they had 7.8 pregnancies, 5.7 live births and 5.2 living children (2.8 sons and 2.4 daughters). Respondents had either no or very little education and two respondents that had studied beyond middle school moved to the village presumably after marriage. None were employed and all of them belonged to the lower middle class or poor families. Women who had induced abortion did so due to non-availability of effective contraception and lack of contraceptive knowledge at time of unwanted pregnancy	--	--

Table 7. Proportion of Induced Abortion to Total Number of Pregnancies as Found in Community-Based Studies

Study References and Research Period	Sampling Method	Proportion of Induced Abortion to Total Number of Pregnancies
<p>1. (a) Saleem, Sarah. 1998. <i>Determinants of Unsafe Abortion in 3 Squatter Settlements of Karachi.</i></p> <p>(b) Saleem and Fikree. 2001. <i>Induced abortions in low socio-economic settlements of Karachi, Pakistan: rates and women's perspectives.</i></p> <p>(c) Saleem and Fikree. 2005. <i>The quest for small family size.</i></p> <p>Karachi June to Aug. 1997</p>	<p>Cross-sectional survey</p> <p>1,214 ever married women in 3 squatter settlements in Karachi</p>	<p>2.11%</p>
<p>2. Sheikh et. al. 2002 <i>Induced Abortion (Reasons and Practices).</i></p> <p>Lahore May to July 2000</p>	<p>Peri-urban community: Shah- Di-Khoi, Lahore</p> <p>186 married, ever-gravid females were selected randomly from a population of 930.</p>	<p>2.24%</p>
<p>3. Awan, A. & M. A. Parvez. 1999. <i>Abortions in rural community.</i></p> <p>Lahore July 1997 to Feb. 1999</p>	<p>Longitudinal study. 4,133 married women of reproductive age from 22 villages. 1576 pregnant women followed.</p>	<p>4.2%</p>
<p>4. Maternity and Child Welfare Association of Pakistan. 1993. <i>Reproductive morbidity in an urban community of Lahore.</i></p> <p>Lahore March 1992 to Feb. 1993</p>	<p>Data collected on reproductive morbidity in an urban community of Lahore. 2991 pregnancies data studies</p>	<p>4.9%</p>

Table 8. Findings Based on Patients in Multiple Types of Health Facilities¹⁰

Study References and Research Period	Type of community	Profile of Abortion Seekers	Abortion Rate	PAC Rate
1. Casterline, John B. and Muhammad Shafique Arif. 2003. <i>Dealing with Unwanted Pregnancies: Insights from Interviews with Women</i> . Jan. to March 2003	Study of 60 public, 11 NGO and 46 private (all types) health facilities in Punjab, Sindh and NWFP Total 448 women seeking care at facilities interviewed	Respondents ranged from 15-48 years in age with mean age of 29. 64% of the 189 women who had an induced abortion were aged 30 and above, against 40% of the women who had a spontaneous abortion. 86.2 % of the women who terminated their pregnancy used contraceptive methods in the past. 82% of induced abortion respondents had 3 or more children. 49% of induced abortion respondents had no schooling. 75% sought the terminations from NGO or private clinics. Most common procedures were pills, MVAs, and D & Cs.	189 out of 448 women seeking treatment said they had induced abortions. 259 out of 448 women said they had spontaneous abortions.	Women with induced abortions reported these types of PACs: Excessive bleeding: 65.2% Excessive pain: 79.7% Passage of soft tissues: 50% Fever: 47.8% Women with complications from induced abortion average of 17 days delay in seeking treatment.

¹⁰ The Population Council has conducted a study based on the perceptions of health care professionals in outlets of various levels across the country. (Rashida et al 2003) Respondents were asked to give their views on a number of interesting and important questions pertaining to patients with post-abortion complications. Since the respondents were not the women themselves, the findings were not included in this table.

Table 8. [cont]

Study References and Research Period	Type of community	Profile of Abortion Seekers	Abortion Rate	PAC Rate
<p>2. Rehan et. al. 2001. <i>Characteristics of Pakistani Women Seeking Abortion and a Profile of Abortion Clinics</i></p> <p>Lahore, Karachi and Peshawar Oct. to Dec. 1997</p>	<p>Study of 32 clinics in 3 provincial capitals; 452 women interviewed.</p>	<p>Married: 413 (91%) More than 5 children: 61% Mean age: 32.3+-7.5 yrs Illiterate: 40% Duration of pregnancy: 1-8 wks: 87%</p> <p>87% accompanied by husbands; in 93.6% cases husband paid for abortion</p> <p>Method used by women seeking abortion because of contraceptive failure: Condom: 38% Withdrawal: 30% Rhythm: 27% Pills: 3% IUD: 1%</p> <p>Reason for abortion: Too many children: 64.4% Contraceptive Failure: 20.3% Medical reasons: 5.4% Extramarital affairs: 1.3%</p>	<p>--</p>	<p>89% were unaware about any complication of abortion</p>
<p>3. Rashida, Gul, Zakir Hussain Shah, Fariyal Fikree, Azeema Faizunnisa, Lauren I. Mueenuddin. 2003. <i>Abortion and Post-Abortion Complications in Pakistan: Report from Health Professionals and Health Facilities</i></p> <p>2001 to 2002</p>	<p>--</p>	<p>Typical women seeking an induced abortion or experiencing PACs were mostly perceived to be married, 30 years or older, not educated and with 5 or more children.</p>	<p>Abortion rate and mortality rate not given</p>	<p>Most common PACs were excessive loss of blood (84%), septic shock (77%), uterine damage/perforation (75%), and uterine infection (69%). Among health facilities government teaching hospitals had the highest average number of PAC cases: 155 per month. The PAC caseload from induced abortion were higher at public facilities (teaching, DHQ, THQ) than at a private facility.</p>

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