STUDY ON ADMITTED ABORTION CASES AT

Maternity Hospital

Thapathali, Kathmandu, Nepal

Submitted by

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Abbreviations used

WHO	World Health Organization
ICPD	International Conference on Population and Development
NESOG	Nepal Society of Obstetrician and Gynecologist
NFHP	Nepal Family Health Program
MMM	Maternal Mortality and Morbidity
FP	Family Planning
LCB	Last child birth
TBA	Trained Birth Attendant
D/E	Dilatation and Evacuation
S/E	Suction and Evacuation
MR	Menstrual Regulation
MTP	Medical Termination of Pregnancy
MOH	Ministry of Health
IUCD	Intra Uterine Contraceptive Devise
CBS	Central Bureau of Statistics
MVA	Manual Vacuum Aspiration
JNMA	Journal of Nepal Medical Association
OCP	Oral Contraceptive Pills
AICOG	All Indian Conference of Obstetricians and Gynecologists
CMA	Community Medical Assistants

Contents

Section I

INTRODUCTION

1.1 The Background of study

Each year around 210 million women become pregnant, more than 46 million of them or 22% land up with abortions, 78% of whom live in developing country and 22% in developed world (The Alan Guttmachar Institute 1999). It is estimated that unqualified personnel in unhygienic conditions (WHO 1998) perform 20 million of the abortions so women experience ill health and some the damage is permanent. In 1995 lives of eight million women were threatened and almost 600,000 women are estimated to have died due to causes related to pregnancy and childbirth. Globally commonest cause of maternal mortality is unsafe abortion (WHO) and is estimated to be 13% or one in eight pregnancy related deaths are due to an unsafe abortion.

Unsafe abortion is defined, as an abortion not provided through approval facilities and/or persons, which vary according to the legal and medical standard of each country (WHO 1993). The definition does not take into consideration of differences in quality, services available or the other substantial differences between health systems. The lack or inadequacy of skills of the providers, hazardous technique and unsanitary facilities (1-3) characterizes unsafe abortions. International conference on population and development (ICPD) plan of action clearly explains that abortion should not be promoted as a method of family planning. All government, relevant intergovernmental and non governmental organizations are urged to strengthen their commitment to women heath, to deal with health impact of unsafe abortion as a major public health concern and to reduce recourse to abortion through expanded and improved family planning services. Any measures or changes related to abortion within the health system can only be determined at the national or local level according to the National legislation process. In all cases women should have access to quality services for the management of complication of abortion. ICPD also clearly emphasizes that post abortion counseling, education and family planning service should be offered promptly which will help to avoid repeat pregnancies.

Among developing regions, Asia has the lowest abortion rate at 11 per 1000 women of reproductive age because the rate of abortions has been directly influenced by national population policies. In China, after the one child policy came into came into effect, there was a great increase in number of abortions compared to the previous decade (4). In Vet Nam , the abortion rate has been influenced by the two child policy , the desire for the smaller families and inadequate contraceptive services(5)

However, half of the worlds unsafe abortions take place in Asia, one third in South-central Asia alone. Furthermore south central Asia has large absolute numbers of abortion-related

maternal deaths, estimated at 29,000 deaths annually. Unsafe abortion rates in south central and Southeastern Asia are similar, at about 20 per 1000 women of reproductive age. In Southeastern Asia this results from nearly 3 million unsafe abortions, which results in 8000 deaths.

In Africa there are almost 5 million unsafe abortions each year nearly 30 unsafe abortions per 1000 women of reproductive age. Over 40% of total deaths are due to unsafe abortions, 34000 occur in Africa. The average unsafe abortions mortality ratio exceeds 100 per 100 000 live births. Eastern, Western and Middle Africa have high unsafe abortion ratios, similar to the level in South America. Mortality is higher in Africa, however, with the highest unsafe abortion mortality ratios estimated for Eastern and Western Africa at 153 and 121 per 100 000 live births respectively. Abortion related deaths account for 12-13% of all maternal deaths in Africa and Asia, a relatively low percentage because of overall high maternal mortality. The risk of deaths from an unsafe abortion is also highest in Africa, at 1 in 150 procedure (6).

Abortion is legal in many countries, including the U.S., where access to abortion services is a constitutionally protected right. The vast majorities of the world's people live in the countries where abortion is legal if pregnancy endangers a woman's physical and mental health. However, regardless of the legal status, majorities of abortions done in developing countries are unsafe. Poor women in rural areas are at most risk of undergoing unsafe abortion, may be because of confidentiality problem and financial reasons. So legalization of abortion only does not decrease unsafe abortion (7).

Adolescent women face a high risk of unintended pregnancies and unsafe abortion because of unprotected sexual activity. A conservative estimate of the total number of abortions among adolescent women in developing countries varies from 2 million to 4.4 million annually.

As we all know Nepal had rigid law against induced abortion. The law equated induced abortion as infanticide, homicide or a kind of murder. At the same time the Nepal Medical Council, which regulates the medical profession in the country approves abortion when performed by a physician only to save pregnant women's life or to prevent birth of a malformed infant.
Many studies in Nepal have shown quite big number of unsafe abortion in our country. Keeping that in mind the practitioner had recommended strongly making some changes in abortion law of Nepal to give access to safe abortion services under condition affecting the health of women. On 2nd Jan 1996 a symposium on reproductive health and rights was organized jointly by the population and social committee of parliament, Nepal Medical

Association, Nepal Society of Obstetrician and Gynecologists and family planning association of Nepal. The symposium was summarized in 3 points (8).

i. Education Training regarding the consequences of unsafe, dangerous techniques of induced abortion must be given to TBAs and other paramedics who represent the front line health service provider in the villages.

ii. Health service provider should be given information and training on contraceptives.

iii. Menstrual regulation services could be introduced in a systematic way with proper training and monitoring.

1.2 Rational of the study.

Paropakar Shree Panch Indra Rajya Laxmi Devi Prasuti Griha is one of the largest tertiary level Hospital in Nepal established in 1959 started with only 40 obstetric beds, gradually started gynecological service from 1963. Though the major admission is in obstetrics 84% of total admission, rest 16% is the gynecological admissions in present days. Among gynecological cases first in the list is a pregnancy complications. Every day patients come with some complications of unsafe abortion in this Hospital. This study is designed to find out the present status of unsafe abortion in hospital admitted population. Though only some patients with complications come to the hospital after unsafe abortion to seek medical care, we can find out why they tried for abortion, where did they go or service, how was abortion induced, what was the cause of unwanted pregnancy etc. This study will help to plan a pregnancy termination and family planning service at different levels. If looked into the wider view this study not only gives some relevant data for service providers and hospital, this even can help obstetricians, nurses, social workers and different associations to go out to the community and try to reduce unwanted pregnancies and reduce the number of unsafe abortion.

After the legalization of termination of pregnancy, being a central referral hospital this hospital has to know the possible load and must plan accordingly. This study will help in this aspect to some extent.

1.3 Abortion Status of Nepal

Nepal Family Health Program (NFHP) (1996) survey indicates that 4.9% of all pregnancies resulted in spontaneous abortion and 0.3% resulted in induced abortion. Result may not be correct, as it is very difficult to get information of spontaneous abortions within 1st few months of conception, which are likely to be missed, and also induced abortions are under estimated.

The Maternal Mortality and Morbidity study (MMM 1998) reveals that complications from both spontaneous and induced abortions accounts for 30% of hospital gynecological admissions. Deaths due to abortion complications in Nepal account for 15 to 30% of all maternal deaths (4000-7000 deaths per year).

A majority of maternal deaths in Nepal are caused by pregnancy complications mainly unsafe abortions.

Nepalese women are exposed to the risk of mortality at least 5.5 times in contrast to rest and 2 times for women in developed countries.

Even with educated women, with easy accessible to family planning have unplanned pregnancy putting strains on the family, resources, so they land up with unsafe abortions.

His Majesty's Government amends the Nepal Abortion Bill in the month Chaitra 2058(March 2002) the Royal asset is given to it on 10 th Asoj 2059 (27th September 2002). It legalizes the termination of any pregnancy up to 12th week of gestation on the request by the pregnant women. It legalizes the termination of any pregnancy up to 18th week of gestation in case of rape or incest. It also legalizes the termination of any pregnancy after 18th week of gestation if the present pregnancy is harmful to the pregnant women or the fetus in uterus as certified by the expert physician. However only the pregnant women holds the right to choose to continue or discontinue the pregnancy. If the pregnant woman is a minor or not in a position to give the consent, the near guardian or the relative can give the consent for Safe abortion service. This law does not allow the termination of pregnancy of any gestation after the sex selection of the fetus by available technology.

There is a selection criteria for service providers for abortion service made by the Government at any health facility.

1.4 Objectives

Main Objective

To find out the level of induced and spontaneous abortions in total abortion cases admitted, causes of admissions and complications due to abortions in admitted cases in Maternity Hospital, Thapathali from 15th Jestha to 15th Kartik 2059(29th May to 1st November 2002).

Specific Objectives

1. To find out the proportion of induced and spontaneous abortions among the admitted abortion complication cases in Maternity Hospital.
2. To find the demography, social economic and health service related factors associated with abortions.
3. To determine the complications due to induce abortions compare to spontaneous abortions.

1.5 Variables

A. Independent variables

Demographic factors	Age
	Parity
	Gravida
Social factors	Address
	Marital status
	Age at marriage
	Age at first childbirth
	Reason for termination of pregnancy
	Decision of termination
Economical factors	Occupation
	Education
Health Service factors	Types of contraceptives used,
	Types of service providers and
	Different methods used to terminate the pregnancy.

B. Dependent variables

Spontaneous abortion
Induced abortion

1.6 Operational definitions

Gravida	No of pregnancies, irrespective of viability and current pregnancy is included
Para	No of pregnancy outcome
LCB	Period since last childbirth
Wk of gestation	Gestational age of current pregnancy
Spontaneous abortion	Pregnancy termination without any attempt of abortion
Induced abortion	Termination of pregnancy by any means to discontinue the pregnancy.
Induced abortion	
Conducted by self	If some one tries to induce abortion self without taking anyone's help
TBA /Sudeni	Persons with minimum knowledge on child birth either by training or doing it traditionally.
Expert village women	Some women who claims to be best in inducing abortion.

Para-medics	Trained staff nurse, health assistants, CMAs
Oral Herbal medicines	Any herbal preparations to induce abortion either in over dose or even in normal dose if it is taken to induce abortion.
Foreign body	Any foreign objects introduced inside to induce abortion i.e. sticks, Cow dung, insecticides and cloths.
Vaginal ointment	Foreign material in the form of ointment
MR	Menstrual regulation usually done within seven to ten days of crossing the LMP and done by the doctors or trained nurses.
D & E	Dilatation and evacuation.
LAM	Lactation Amenorrhoea Method
Septicemia	Generalize infection manifested as fever, with or without low BP, Peritonitis, ascities, liver failure or renal failure
Sever anemia	Hb% -- <5gm
Moderate anemia	Hb% --5-7 gm
Local Sepsis-	Infection of pelvic organ

2. METHODOLOGY

2.1 Research Design

This is a prospective and descriptive cross-sectional study done to analyze the problem of unsafe abortion among the abortion complication cases attending the central referral hospital of Nepal. In some part of this study the comparison between two groups spontaneous and induced abortion will be made for effective discussion and better results. Paropakar Shree Indra Rajya Laxmi Devi Prasuti Griha (Maternity Hospital) is in Thapathali, Kathmandu, has been established since 43years(August 1959 AD). It has three hundred and fifty beds with high turn over rate.

2.2 Method of study

Study has been done with both qualitative and quantitative methods. All the cases that were admitted in the hospital with incomplete abortion, septic abortion, inevitable abortion or any other complications were included in this study. They were examined to complete the results. Any few points may be copied from the hospital record form. But major part of this study was by interviewing the patient.

2.3. Sources of data

Source of data is both primary and secondary. Primarily the patient herself was interviewed. In case of patient very ill accompanied person was being interviewed. Priority was given to direct patients interview. Secondary source of data was taken from admission record book, patient's chart and partly from statistics department.

2.4 Sample and sample size

All the cases of abortion complication were included in study during the defined period of sample collection. Estimation was to find 200 total cases of abortion complications among which around 30 induced abortion were expected. However altogether 206 abortion cases along with 35 induced abortion cases are including in the study.

2.5 Sampling method

Sample collection was done by convenient sampling technique. All the case of abortion complications either spontaneous abortion or induced unsafe abortion were included in research group. Sample collection was done during the define period which is mentioned below.

Inclusion criteria

a. Any case of abortion under twenty-two weeks of gestation.
b. Any case of abortion with history of leaking per vagina.
c. Any case of abortion with complain of pain abdomen
d. Any case of abortion with complain of fever

Exclusion criteria

a. Threatened abortion
b. Ectopic pregnancy
c. Molar pregnancy
d. Any case who refuse to give an interview

2.6 Research tools

Research tools included filling up of interview question in a form and patients hospital record form.

2.7 Pilot testing

The tools were pre-tested after collecting 8 interview forms in research group of this hospital. Some modifications in the interview form to fulfil the objective of this study were made accordingly. The new formats were used for rest of the study.

2.8 Data collection procedure

With above mentioned sampling technique the samples were identified and the clients were interviewed in Gynaec. Ward and in MVA room. The interviewer was asked to fill up the forms either with the client or with the accompanying person. The confidentiality was strictly maintained and was assured about it. Before interviewing the case the consent papers were read out to the cases and were made to sign by them. If any of the clients refuse to give an interview they will be excluded from this research. The general admission date used to be recorded every day.

2.9 Data processing and analysis

Data processing was done manually. After collecting the interview forms all of them were screened. The interim analysis was done off and on and monthly. Any of the incomplete forms were rejected. After cleaning up of the data the tabulation were done. With the help of the tables sample description analysis was done. Only the meaning full tables were presented. In data processing and analysis, every step was discussed within responsible group regarding details of forms and its way of fill up.

2.10 Gantt chart

	15/1/59	15/2/59	1/3/59	1/4/59	15/4/59	1/5/59	15/5/59	1/6/59	15/6/59	30/6/59
Data Collection										
Data Analysis										
Report Writing										
Printing binding and submission										

3. LITERATURE REVIEW

According to the white Ribbon Alliance for Safe Motherhood in 2000, every minute around the world: 380 women become pregnant, 190 women face unplanned or unwanted pregnancies. 110 women experience pregnancy-related complications, 40 women have unsafe abortions and 1 woman dies.

" Woman's Health is a Nations Wealth" is very strong slogan of safe motherhood but how far have we become successful in implementing such policy. Nepal has numbers of studies done in different aspects of abortion. Thapa et al had done a study for six months period in 1985; the hospital-based component of study identified 17.4% of 276 cases to be induced abortion and rest spontaneous abortion (9). On one of the study done by Dr. S Sharma et al in this hospital OPD, among the women attending for pregnancy confirmation 31% were unplanned and 21% of them wanted termination (10) . Since termination of pregnancy was not legalized these women who wanted to terminate may land up with any of the complications of unsafe abortion. One of the articles in Journal of Ob/Gyn India 1999-highlighted 50- 80% of teenage pregnancy are unwanted world wide. The Alan Guttmechar institute 1998 stated clearly that unprotected sexual activity among adolescent girls that end up in an unwanted pregnancy in India are <10%, Japan 11%(6)
According to Prof. P Tiwari unskilled illegal persons produce 4-6 million of septic abortion in 1997 in India (11). The etio-pathogenesis of the cases remains the incomplete evacuation of the product and injury to the genital tract & bowl. The commonly found infectious organisms are bacteroids, staph, kliebsilla, pseudomonas etc. If the emergency treatment like evacuation or active surgical treatment like laparotomy or hysterectomies are not done, woman's life may be threatened.Study on septic abortion by Ratna Sanyal shows 46% were between 21-30 years of age, 58% were married and 32% has one or more induced abortion in past. Infection was found in 36%, 80% were aerobes causing that infection (12). Similarly, Dr Madhri chandra from Jabalpur did one-year study and found 4.56% of total abortions were due to septic abortion among them 48.15% were grade 3 septic abortion (13).
The socio-demographic profile of induced abortion cases were found as below. In study done by Thapa et all (9), currently married population was 90%, average age of abortion population was 29.8, mean no of pregnancy 4.1 and no of living issue 2.8 The most frequent stated region for abortion was large family size (68%), 8% had desire to space the next birth, 10% for poor health and 9% were widow or unmarried.
In same study the most commonly requested method of abortion was ingestion of oral herbal preparation (19%), modern oral medicine 16%, insertion of foreign object into

vaginal 13%, use of vaginal ointment 11% body, other methods included menstrual regulation, folk method, dilation & evacuation. This detail study also found that 30% women reported to TBA/ Sudeni to provide the abortion service in 30%. One forth of them attempted abortion themselves, another one forth reported the doctors. It was identified that TBAs use intravaginal foreign objects, vaginal herbal ointments and oral herbal medicines.

Adolescence (10-19 yes) comprises of 1/5th of the world populations. They are less informed, less comfortable in assessing family planning and Reproductive health services than adult so they are prone to have unwanted pregnancies and risk of unsafe abortion. They even are having less resources and money and so they go for self-medications, cheaper unskilled quacks and tend to go for abortions later in pregnancy and with dangerous methods.

Study on Septic Abortion in Rural Medical College done by Ratna Sanyal reported that rural female accounts to 74% of total cases and educational status 64% rest had only primary education. Among her study group 32% had one or more induced abortion in past(12).

Dr Madhri Chandra from NSCG medical college, Jabalpur presented her study of 1998 in 42nd AICOG, Hyderabad, study of one year from 87 to 88 states that 4.56% of total abortions were septic cases and 48.15% were of severe septic cases(13). So according to her in the hands of unskilled personnel in unhygienic conditions, MTP becomes a life threatening condition.

The Journal of Obstetric and Gynecology of India vol. 49 No 5 one reports that 50 to 80% of teen-age pregnancies are unwanted world wide or gestational waste (14). Pregnancy for unwanted mother seeks from unauthorized abortionist, as abortion facilities are not available at the appropriate time in spite of liberal MTP act.

Section IV

4. FINDINGS WITH TABLES

After the acceptance of the proposal there was a short meeting among the group so that the whole group is aware of the research process.

Registrars took first few interviews. We analyzed and pre-tested eight interviewed question answer forms which was started on 1st of Jestha 2059. There were 26 questions and we filled them in dummy tables. And found it to be inadequate to fulfil our objectives

So we decided to modify the questions and study started with new modified interview forms from 15.2.059(29thMay 02). Every week the screening of the interview forms were done. Interim analysis was done after first fifteen days of data collection.

Data and tabulations

Total Gynecological admissions- 1617

Total Abortion complication -847 (52.38%)

Included Abortion cases –206

Induced Abortions---35

Spontaneous Abortions--171

Duration of study -15th Jestha to 15th Kartik 059(29th May to 1st Nov. 02)

Table 1

Age distribution of research group

Age Group	Induced Abortion N= 35		Spontaneous Abortion N= 171	
14-19 Years	4	11.4 %	26	15.2 %
20-24 Years	11	31.4 %	72	42.1 %
25-29 Years	9	25.7 %	40	23.4 %
30-34 Years	8	22.8 %	23	13.4 %
> 35 Years	3	8.5 %	10	5.8 %

Majorities of induced and spontaneous abortions are found among 20 to 24 years age group (31.4% induced and 42.1% spontaneous) followed by 25 to 29 years age group (25.7% induced and 23.4% spontaneous).

Table-2

Differences in Geographical distribution

Address	Induced abortion		Spontaneous abortion	
Urban	16	45.7%	85	49.7%
Semi-urban	9	25.7%	57	33.3%
Rural	10	28.5%	29	17%

When looked into the geographical impact it is found that nearly 50% of induced as well as spontaneous abortion cases was from urban area. But among rural people they are going for terminations more (28.5% or 1/3rd) than in spontaneous abortion group (17% or 1/5th).

Marital Status

Marital status	Induced abortion 35	Spontaneous abortion 171
Married	33 (94.3%)	171(100%)
Never Married	2 (5.7%)	
Widowed		
Divorced		
Married & staying separately		

As we have seen all of the unmarried cases were within the induced abortion cases which means 1 in 20 cases. This does not give true figure as many of them do not come to the hospital unless they are in real problem.

Table-4

Wife's education level and induced abortion

Education of wife	Induced Abortion 35		Spontaneous Abortion 171	
Illiterate	19	54.3%	43	25.1%
Literate/schooling	12	34.3%	96	56.1%
College	4	11.4%	27	15.8%
University			5	3%

Termination of abortion seems more prevalent in illiterate group (54.3%) than in the literate college going group (11.4%). But in spontaneous abortion group (56.1%) evaluated it is more common in literate group, may be it is due to work load or burden of which is a matter to be investigated later.

Table –5

Relation between husbands education and abortion.

Education of husband	Induced Abortion		Spontaneous Abortion	
Illiterate	6	17.1%	18	10.5%
Literate/schooling	23	65.8%	94	55%
College	6	17.1%	47	27%
University	-		12	7%

Education levels of husbands have definitely some impact on prevalence of induced abortion cases. Just literate and illiterate groups comprised nearly 83%. Non of the husband of induced abortion group had education up to university, only 17% had college level education, while nearly 35% of the spontaneous abortion group had education up to college or university. This gives us little idea that educating men have positive impact on avoiding unsafe abortions.

Table-6

Analyzing the number of children in both groups

No of children	Induced Abortion	Spontaneous Abortion

none	2	5.7%	62	36.2%
1	5	14.3%	73	42.75%
2	13	37.1%	13	7.6%
3	9	25.7%	11	6.4%
4	4	11.4%	5	2.9%
5 & more			7	4.1%

When number of children were analyzed it seems that nearly 80% of spontaneous abortion group cases were with only one child or without child even, where as induced cases were done mostly by the mother of 2 to 3 children.

Table-7

Affect of age at first child birth in induce abortion

Age at first child birth	Induced abortion		Spontaneous Abortion	
14-19	22	16.8%	38	22.2%
20-24	10	28.6%	43	25.1%
25-29			17	9.9%
30-34			4	2.3%
35 & more				

16.8% of induced abortion groups and 22.2% of spontaneous abortion groups were adolescence mothers who had delivery within 14 to 19 year of age, although according to ministry of health (1997) mean age of marriage has increased from 15.4 years (1961) to 18.4 years (1991) Out of 35 women 22 had first child birth under 19 years. So by the time they are 29 years they can at least produce 3 to 4 kids if they do not realize about available family planning service of Nepal receive services.

Table-8

Comparing the age of last child

Age of LCB(years)	Induced abortion		Spontaneous abortion	
1-2	9	25.7%	21	12.3%
3-4	10	28.6%	39	22.8%
5-6	8	22.9%	19	11.1%
6 & more	8	22.9%	23	13.4%

While noting the age of last child in spontaneous and induced abortion cases it is found that termination done mostly within 1 to 2 years of last child birth, 25.7% of induced abortion cases has only 1 to 2 years age where as in spontaneous abortion cases only 12.3% were in that group. Because the child is too young they do not want to have another child so they go for termination.

Table-9

Common reason for inducing abortion in study group

Reason for inducing abortion		
Unmarried women	2	5.7%
Widow	-	
Rape	-	
Too many children	17	48.6%
For Spacing	4	11%
Other social problem	2	5.7%
Economic hardship	8	22.9%
Failure of FP method	1	2.9%
Wanted only one child	1	2.9%

The analysis of reason for inducing the abortion was asked to the study group it be found that 48.6% of them gave the answer that they did not want to have too many children. Next in the list was economic factor which accounted for 1/4th of all cases of induced abortion cases. We can also see that 11.3%of induced abortion cases had taken abortion as a means of spacing.

Table-10

Gestational Age of Abortions in two groups

Gestational age	Induced abortion		Spontaneous abortion	
<6weeks	6	17.1%	24	14.0%
6-8 weeks	8	22.8%	62	36.2%
10-14weeks	16	45.7%	60	351%
>14weeks	5	14.3%	25	14.6%

When we looked at the common gestational age of the abortion 60% of the induced abortion cases were between 10 to 14 weeks of gestation and nearly 50% of spontaneous abortion cases were of less than 8 weeks of gestation. So decision of termination of pregnancy is taken a bit later gestation.

Table-11

Methods used by the providers to induce abortion.

Providers/ Methods used	Self	TBA/ Sudeni	Expert villagers	Para-medics	Doctor
Oral herbal medicines	1 3%	-	1 3%	-	-
Oral modern medicines	4 11.5%	4 11.5%	-	5 14.%	-
Insertion of Foreign body in vagina	-	-	2 5.7%	-	-
Application of vaginal ointment	-	3 8.6%	-	-	-
Menstrual regulation	-	-	-	3 8.6%	4 11.4%
D/E, S/E	-	-	-	-	8 22.9%

Table shows 37% of induced abortion was tried with oral modern medicine and second popular method was D/E and S/E, mostly done by doctors and paramedics in study group (34.3%).

Table 12

Complications of abortions.

Complication	Induced Abortion	Spontaneous Abortion
Severe anemia	-	2 1.1%
Moderate "	3 8.6%	11 6.4%
Local Sepsis	4 11.4%	-
Generalised septicemia	-	1 0.58%

Table shows 20% of complications in Induced abortion and only 14% of complications in spontaneous abortion group.

Table-13

Family Planning method used sometime during their reproductive age.

Type of family planning method used	Induced abortion 35		Spontaneous Abortion 171	
No Knowledge on Family planning	8	22.9%	4	2.3%
Knows but not using any	-		2	1.1%
Natural Method	1	2.9%	2	1.1%
Barrier Method	1	2.9%	9	5.2%
Oral contraceptive pills	5	14.3%	12	7%
Injectable	13	37.1%	30	17.5%
Norplant	-		5	2.9%
Permanent method	-		2	1.1%

Majority of the study group used Injectable for family planning for some time during their reproductive period. Second large group is women without any knowledge of family planning method. OCP is also the third in this list.

Table-14

Common reasons for not using contraceptives.

Reason for not using contraceptive	Induced Abortion		Spontaneous Abortion	
Wants to get pregnant	-		58	33.9%
Fear of side effects	11	31%	20	11.7%
Husband Away	2	6%	8	4.7%
Negligence	6	17.1%	5	2.9%
Husband opposed	-		2	1.1%

Medical illness	-		1	0.58%
Other family members opposed	1	2.9%	3	1.7%
Ignorant	12	34%		

Thirty three percent of cases of spontaneous abortion wanted an issue so did not use any contraceptives. But thirty one percent of induced abortion cases were not using the family planning methods due to fear of side effects. Similarly seventeen percent of induced abortion cases did not use them because of their own negligence.

Table-15

To find out the knowledge on legalization of abortion service.

Knowledge on legal aspect of abortion	Induced abortion 35		Spontaneous abortion 171	
Legal	1	2.8%	10	5.8%
Illegal	9	25.7%	57	33.3%
No knowledge	25	71.4%	104	60.8%

Above table showed only 2.8 % of induced and 5.8 % cases of spontaneous abortion cases had idea about implementation of abortion law. 71.4% of induced and 60.8 % of spontaneous abortion groups were without any knowledge in this matter.

Table-16

Showing the decision-maker in induction of abortion.

Decision of termination is made by		
Self	8	22.8%
Husband	-	
Husband & Wife	24	68.6%
Others	3	8.6%

While trying to know about decision maker for inducing abortion it is found that 68.8% cases were decided by both partners and 22.8% of them had decided on their own by the lady as many of the husbands were not bothered about their wives.

Section V

5. DISCUSSION

In total of 1617 gynecological admission, 52.38 % were abortion complication. The cases included were only 206 finally and induced and spontaneous abortions are 17 & 83 % respectively. Similarly study done by Thapa et.all had found induced abortion to be 17.4%.

The mean age of cases of abortion is 26.8 years in our cases where as in previous study done by Dr. Shyam Thapa it was 29.8 years. In this regard we should note that mean age of marriage in Nepalese women have increased from15.4 years in 1961 to 18.1 years in 1991(Source CBS 1995 MOH 1997. Similarly the incidence of induced and spontaneous abortions among teen age is 11.4% and 15.2% respectively. It is more than

the study done in India which is found to be 6.6 % (Department of family welfare MOH and Family welfare 1990 & 1991) .

Ministry of Health Maharstra in 1997 showed that girl younger than 15 years accounted for 21.7 % of all abortions.

In 1995 Lancet report on reproductive tract infection and abortion among adolescence girls in rural Nigeria accounted 24.1 % under going induce abortion. The abortion rate is as high as 22 % among girls less than 17 years and 43 % among 17-19 years old in their report.

Probably the life style of younger ladies or genetic factors has something to do for spontaneous abortion in nulli parous women. Economic factor having too many children, not using family planning service or less propagation of family planning activity is the factor for ladies having going for termination of pregnancy.

On geographical distribution most of the cases are from urban area, may be because the hospital is situated in the capital city. In contrary study done in one of the rural Medical College in India reported to have 70% of total cases from rural area (6).

While looking at the marital status 5.7% in induced abortion reported to be unmarried in this study. According to data from a Government Medical College from South India states that out of 110 abortions done every month almost 12 % were a unmarried teenager. And one study of induced abortion in Nepal found 9% of unmarried/ widow (13).

It is well known fact that induced abortion has direct relation to literacy/ education level. This study also shows same result those couples who are illiterate and literate only are more in induced abortion group significantly. But even in spontaneous abortion group we have this group more than the couple with college & university level of education. Ratna Sanyal reports 64% of cases of septic abortion had only primary level education (12).

Comparing the number of children in induced and spontaneous abortion group 37.1% of cases of induced abortion already had two children and in spontaneous abortion most of them had only one child or none. Again study done by Thapa et all also had 2.8 mean no of living issue (9).

Table showing the age of mother at first child birth shows 16.8% and 22.2% of teenage pregnancy in induced abortion group and spontaneous abortion group respectively. We know that adolescent comprises 1/5th of worlds population. One of the studies in India reports that 50- 80% of teenage pregnancies are unwanted (15). Study done in Maternity Hospital, Thapathali OPD among the pregnancy confirmation, showed 31% of unplanned pregnancy and 21 % of them wanted termination of pregnancy.

Among the induced abortion the common reason of inducing abortion was many children (48.6%), economical cause 22.9% and for spacing was another major causes identified in this study. Similarly most frequently stated reason for abortion was large family size 68% and spacing 8% in combined hospital based and community based study done in Nepal in 1985(9).

When do they go for induce abortion? In this study it was found that 45.7% of induced abortion was between 10- 14 wk. of gestation.

Present study showed that more than 50% went to the doctors (34%) and para-medics (23%) for termination of pregnancy. Fourteen percent tried themselves, 20 % went

to TBA 9% seek help from expert village women. This trend is slightly different from Dr S Thapa's study, which showed only 25 % went to the doctors, 25 % attempted abortion themselves and 30 % went to TBA. Same study showed oral herbal preparation as commonly opted method 19%, modern oral medicine 16%, insertion of foreign objects in vagina 13%, use of vaginal ointment 11%.(9). In contrast, our study showed MR or D/E to be the most commonly used method (43%), and only 6% used ingestion of herbal medicines, 37% of ingestion of oral modern medicine. 14 % of study people attempted termination of pregnancy by inserting foreign body in vagina by TBA/Sudeni and expert village women.

Regarding complications of abortion 20 % complication were found in induced abortion and only 8% in spontaneous abortion. Dr Madhri found 4.56 % of total abortion to be septic and 48.15% were severe sepsis case. In our study local sepsis and moderate anemia were the major complications. As we have already seen that our most of the study population went to the Doctors or para medics who induces abortion by right method and only few cases with incomplete abortions are admitted and the conditions were good.

While finding out the popular method of family planning among abortion cases one forth of induced abortion cases did not have knowledge on family planning. And injectable was the popular family planning method. Fear of side effects (31%), ignorant (34%) and negligence (17%) were common reason of not using any contraceptives.

To know about the knowledge of legal aspect of abortion we interviewed about it 3/5 of the study population did not know about the legal aspect at all and only 2.8% knew that abortion law exists and procedure is legalized.

Both partners decided among 70% of induced abortion, 23% of the women were the one to decide on their own and in 7% cases other members of the family or the close relatives helped them for decision.

Section VI

6.CONCLUSION

1. Family Planning services still have to be propagated and need to be Popularized. Emergency contraception or post coital contraception should be advocated to prevent pregnancy.

2. Appropriate and systematic technical training should be given to the Service providers to handle such delicate matter to give safe abortion. Service for those who wants to prevent or terminate unwanted pregnancy.

3. Certification system needs to be advocated for well-trained personnel.

4. There should be certification and licensing system for service delivery. Site with regular monitoring even after implementing the services.

5. Site for provision of safe abortion should be approachable, affordable, acceptable and available at any time with full confidentiality maintenance.

6. Infection prevention practice needs to be strengthened in order to achieve the goal of safe abortion services.

7. Geographical disparity should not be there, as special attention is needed for remote service delivery sites.

8. Adolescence should have sex and family planning education starting from school level. They should have the privilege of knowing where they can have family planning services, availability of service of emergency contraception and detection of early symptoms of pregnancy and pregnancy test.

9. Advocacy for legalization of abortion should be given first priority to reduce the mortality and morbidity due to unsafe abortions.

Section VII

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Interview Questions

Reg. No:.....

1. Name:

2. Age: H W

3. Address: Urban/Semi-Urban/Rural

4. Occupation: H W

5. Date of Admission:

6. Marital status: Married/Unmarried/Widow/Staying Separately

7. Education: a. H- illiterate/ Literate & School/ College/ University

   b. W- illiterate/ Literate & School/ College/ University

8. Age at marriage:

9. Age at 1st childbirth:

10. Gravida: 11. Para: 12. LCB: 13. Wk of gest:

14. Lactating: Yes/No

15. This pregnancy was: Spontaneous abortion/ Induced abortion

16. If induced, conducted by self/TBA or Sudeni/ Expert village women/ Para-medies/ Doctor

17. Past h/o induced abortion: Yes/No

18. If yes, conducted by: Self/TBA or Sudeni/ Expert women/ Para-medies/ Doctor

19. Methods used by providers: Oral herbal medicines/ Oral modern medicines/ Insertion of foreign body in vagina/ application of vaginal ointment/ MR/D&E

20. Contraceptives use: Yes/No/Used but left

20. Reason for not using: Wants to get pregnant/ Fear of FP side effects/ Inaccessible/ Not aware of/ Negligence/ LAM/ Husband opposed/ Other family members opposed

21. Type of contraceptives used: Natural methods/ Condoms/ OCP/ Depo Provera/ Norplant/ Permanent

23. Is this pregnancy planned? Yes/No

24. Reason for termination: Unmarried/ Widow/ Rape/ Too many children/ Economical/ Social problem/ Family planning failure/ For spacing

25. Is termination of pregnancy is legal? Yes/No/ Do not know

26. Decision of termination is made by: Self/ Husband/ Both/ Relatives

27. On examination at the time of admission:
Temp..... Pulse.....BP.....

28. Abdominal findings in detail if positive:

29. Detail PV findings:

30. If septicemia: Signs of septicemia:

31. Hb% on admission:

32. Complication of abortion found: Severe anemia/ Mod anemia/ Sepsis/ Inc. abortion/Perforation/ Multi organ involvement

33. Treatment given:

Name of interviewer:

Date: