Son Preference and Abortion Utilization in Nepal

*Independent Study Project*

Lindsey Youngquist, MS4

Included in this document:
- Manuscript for paper
- Tables for manuscript

*Policy brief that is being used by the Center for Reproductive Health in the country of Nepal*

*Lit review on abortion in Nepal*
Son Preference and Abortion Utilization in Nepal

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Abstract

This study examines associations of son preference, desire for sons more than daughters, with abortion history among ever-married women in Nepal (N=9837), using nationally representative 2011 Nepal Demographic and Health Survey data. Logistic regression analyses, adjusted for sociodemographics and other relevant covariates, assessed associations between son preference (assessed by self-report and number/sex of children) and abortion history. Having multiple sons rather than 0 or 1 son was associated with abortion history, where presence/absence of daughters and self-reported son preference were not. Son preference appear to play a role in abortion decision-making in Nepal that cannot be captured by self-report.
Son Preference and Abortion Utilization in Nepal

Although Nepal legalized abortion in 2002, utilization of such services remains lower than expected need, particularly for rural, less educated and poor women [1-3]. Legalized abortion is an important reproductive health service that has helped reduce maternal mortality in Nepal [3] but can also result in a child sex ratio imbalance in contexts such as South Asia, where son preference remains a concern [4]. Among wealthier and urban populations, there are indications that abortion legalization is resulting in a sex ratio imbalance due to sex-selected abortion [5]. Demographic data reveal a conditional sex ratio imbalance in Nepal since abortion legalization, such that there is lower than expected likelihood for a second child to be a girl when the first born is a girl, particularly among wealthier and urban women. [5] Other research from Nepal has found lower contraceptive use and greater desire for more children for married women with no or only one son in the household, but not for those with no or only one daughter [6-8], demonstrating the role of son preference in family planning behaviors. Research has not examined whether son preference ideology is associated with abortion. This study examines associations of son preference, indicated by self-report and child sex composition, with abortion history in Nepal, with sub-analyses to assess rural/urban differences in these associations.

Methods

The present study involved analysis of data from the 2011 Nepal Demographic and Health Survey (DHS) [2]. The DHS is a population-based survey that is conducted in low-to-middle income countries to track maternal and child health and demographic indicators. Nepal 2011 DHS included a nationally representative sample of 12,674 women aged 15-49 years (98%
participation rate); current analyses were restricted to ever married women (n=9837), as only one never married woman reported a history of abortion. Informed oral consent was obtained prior to participation. Details of the survey design and data collection procedures are published elsewhere and received institutional review board (IRB) approval from the Nepal Health Research Council and ICF International in the United States. [2]. The present analyses were reviewed and approved by the IRB of the University of California, San Diego, CA, USA.

Measures. History of abortion is defined as at least one intentionally terminated pregnancy and was measured based on survey assessments on outcome of up to twenty past pregnancies. Additionally, those who had an abortion in the past five years were asked, in regards to their most recent abortion, the form of abortion (e.g., medical abortion, dilation and curettage), provider information (e.g., physician, pharmacist), and health sector utilized (e.g., government, private, NGO). Fertility preference items on participants’ ideal number of boys and girls were used to assess ideal number of children in total they would have liked to have; son preference was based on reports of wanting more boys than girls. Total number and sex of children (sons and daughters, separately) were also assessed. Socio-demographics included age, marital status, development region and ecological zone, as well as wealth index, education and rural residence.

Data Analysis. Logistic regression analyses, adjusted for sociodemographics and other relevant covariates, assessed hypothesized associations between son preference and abortion history for the total sample and stratified by rural/urban residence. Collinearity was assessed for all variables before construction of the multivariate models; tolerance levels were > 0.30. All analyses were adjusted for the complex survey design, with domain analysis used to provide
estimations for the subpopulation and stratifications of interest, within SAS version 9.4 (SAS Institute, Cary, NC, USA).

**Results**

Findings document that 8.8% of ever-married women (n=870) reported a history of abortion. Of reporting this history, most have had one (75.2%) or two (19.0%) abortions. Among women reporting an abortion in the past five years (n=506; subsample for which these details are available), 38.1% reported dilation and curettage, 23.8% had manual vacuum aspiration, 20.0% took unspecified tablets, 9.0% had a medical abortion, and 8.9% took other actions (injection, catheter, unspecified) for their most recent abortion; most obtained these services from a physician (61.2%) or a nurse-midwife (28.1%). Adjusted regression analysis indicated no significant association between reported son preference ideology and abortion; however, having more rather than fewer sons was associated with history of abortion (e.g., 1 vs. 0 sons AOR=1.64, 95% CI=1.23, 2.18; 4+ vs. 0 sons AOR=1.73, 95% CI=1.01, 2.94). (See Table 1.) Older age, higher education, and greater wealth were also associated with history of abortion. Adjusted regression analyses stratified by rural/urban residence indicated that having sons was associated with abortion history for rural but not urban women.

**Discussion**

In rural Nepal, women with multiple sons were more likely than those with one or no sons to report having had an abortion, though reported son preference ideology was not associated with this outcome. Findings suggest that son preference does affect abortion use in rural Nepal but cannot be captured by self-report. Son preference findings were not observed for urban Nepal.
These results appear to counter prior research from the country documenting greater sex-selected abortion among urban and wealthier women [5], but are consistent with national data indicating higher rates of son preference in rural versus urban Nepal [2]. We cannot ascertain from these data whether more sons among women reporting abortion is due to use of sex-selected abortion or greater use of abortion subsequent to achieving desired number of sons. The latter would correspond with recent research from Nepal documenting that contraception is more likely among women with more sons, but not more daughters [7]. Findings also confirm prior research suggesting lower abortion utilization for rural, less educated and poor women [1-3], reinforcing calls for continued prioritization of abortion access for socially vulnerable populations. Study limitations include reliance on self-report and likely under-reporting of abortion, as well as use of cross-sectional analyses and an ever abortion variable impeding assumptions of causality. More work to address root causes of son preference, in conjunction with improved access to reproductive services, are needed for Nepal, especially in rural areas.
Author Contributions

AR acquired the data for analysis and led conceptualization and drafting of the paper. JR conducted all analyses for this paper, and contributed to its conceptualization and drafting. LY and MF contributed to interpretation and drafting of the paper. JS drafted segments of the paper and supported conceptualization of the paper and interpretation of study findings. All authors gave final approval to the submitted version of this manuscript.

Competing Interests

Authors of this work have no conflicts of interest to report.

Financial Disclosure

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References

Table 1. Associations of fertility preferences with abortion in Nepal, among ever married women (N=9837), and subsamples of urban (n=2686) and rural (n=7141) ever married women.

| Table 1. Associations of fertility preferences with abortion in Nepal, among ever married women (N=9837), and subsamples of urban (n=2686) and rural (n=7141) ever married women. |
|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| **Ideal number of children**     | **History of Abortion**          | **No History of Abortion**       | **Total**                        |
| 0-1                              | Ref                              | 1.27 (0.87 – 1.87)               | Ref                              |
| 2                                | 1.25 (0.71 – 2.18)               | 0.86 (0.53 – 1.39)               | 1.34 (0.54 – 3.32)               |
| 3                                | 0.82 (0.42 – 1.59)               | 0.83 (0.23 – 2.94)               | 0.80 (0.37 – 1.75)               |
| 4+                               | Ref                              | Ref                              | Ref                              |
| **Son Preference**               | **AOR (95% CI)**                 | **AOR (95% CI)**                 | **AOR (95% CI)**                 |
| Yes                              | Ref                              | Ref                              | Ref                              |
| No                               | 0.95 (0.67 – 1.36)               | 0.98 (0.49 – 1.98)               | 0.94 (0.63 – 1.40)               |
| **Socio-Demographics**           | **AOR (95% CI)**                 | **AOR (95% CI)**                 | **AOR (95% CI)**                 |
| **Age**                          | **AOR (95% CI)**                 | **AOR (95% CI)**                 | **AOR (95% CI)**                 |
| 15-19                            | Ref                              | 3.88 (1.09 – 13.76)              | Ref                              |
| 20-24                            | 4.23 (1.56 – 11.47)              | 7.56 (2.25 – 25.39)              | 4.91 (1.62 – 14.91)              |
| 25-29                            | 5.66 (2.08 – 15.37)              | 9.67 (2.89 – 32.37)              | 14.91                            |
| 30-34                            | 5.71 (2.11 – 15.42)              | 7.43 (2.05 – 26.99)              | 16.09                            |
| 35-39                            | 4.69 (1.70 – 12.98)              | 8.21 (2.29 – 29.49)              | 12.77                            |
| 40-44                            | 5.18 (1.80 – 14.91)              | 11.64 (3.11 – 43.59)             | 14.19                            |
| 45-49                            | Ref                              | Ref                              | Ref                              |
| **Marital Status**               | **AOR (95% CI)**                 | **AOR (95% CI)**                 | **AOR (95% CI)**                 |
| Not currently married            | Ref                              | Ref                              | Ref                              |
| Currently married                | 1.88 (0.66 – 5.37)               | 1.33 (0.67 – 2.62)               | Ref                              |
| **Development**                  | **AOR (95% CI)**                 | **AOR (95% CI)**                 | **AOR (95% CI)**                 |
| **Region**                       | **AOR (95% CI)**                 | **AOR (95% CI)**                 | **AOR (95% CI)**                 |
| Eastern                          | 0.41 (0.28 – 0.64)               | 0.67 (0.40 – 1.02)               | 0.35 (0.22 – 0.56)               |
| Central                          | 0.42 (0.29 – 0.60)               | 0.73 (0.52 – 1.02)               | 0.35 (0.22 – 0.56)               |
| Western                          | 0.77 (0.54 – 1.10)               | 0.73 (0.48 – 1.11)               | 0.77 (0.50 – 1.16)               |
| Mid-western                      | Ref                              | Ref                              | Ref                              |
| Far-western                      | 1.39 (0.83 – 2.32)               | 0.63 (0.42 – 0.94)               | Ref                              |
| **Ecological Zone**              | **AOR (95% CI)**                 | **AOR (95% CI)**                 | **AOR (95% CI)**                 |
| Mountain                         | Ref                              | Ref                              | Ref                              |
| Hill                             | 1.90 (0.77 – 4.70)               | 1.76 (0.71 – 4.36)               | 0.84 (0.54 – 1.30)               |
| Terai                            | 1.51 (0.51 – 4.44)               | 3.63 (1.19 – 11.04)              | 14.91                            |
| **Social Equity**                | **AOR (95% CI)**                 | **AOR (95% CI)**                 | **AOR (95% CI)**                 |
| Poorest                          | 0.37 (0.24 – 0.57)               | 0.37 (0.24 – 0.57)               | 0.37 (0.24 – 0.57)               |
| Poorer                           | 0.57 (0.35 – 0.90)               | 0.35 (0.22 – 0.56)               | 0.56                             |
| Middle                           | 1.30 (0.79 – 2.13)               | 0.79 (0.45 – 1.40)               | Ref                              |
| Richer                           | 1.40                             | 0.80 (0.37 – 1.75)               | Ref                              |

**Notes:**
- AOR = Adjusted Odds Ratio
- CI = Confidence Interval
- *N* = Number of observations
- Total (unwtd n = 9837)
- Total (unwtd n = 2696)
- Total (unwtd n = 7141)
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<td>48.3 (4811;</td>
<td>30.1 (26.0 – 34.2)</td>
<td>18.7 (17.3 – 20.1)</td>
<td>5.5 (4.6 – 6.4)</td>
<td>1.95 (1.51 – 2.51)</td>
<td>2.16 (1.70 – 2.75)</td>
<td>2.17 (1.45 – 3.24)</td>
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<td>19.0 (1896;</td>
<td>22.3 (18.8 – 25.9)</td>
<td>25.9 (23.7 – 28.0)</td>
<td>9.6 (8.7 – 10.6)</td>
<td>2.11 (1.45 – 3.06)</td>
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<td>26.8 (2675;</td>
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<td>5.5 (4.6 – 6.4)</td>
<td>9.6 (8.7 – 10.6)</td>
<td>1.92 (1.43 – 2.59)</td>
<td>2.04 (1.52 – 2.74)</td>
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<td>5.8 (583; 613)</td>
<td>10.0 (7.0 – 12.9)</td>
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<th>Residence</th>
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<td>13.2 (1315; 2696)</td>
<td>21.8 (18.1 – 25.4)</td>
<td>12.4 (11.7 – 13.2)</td>
<td>1.05 (0.80 – 1.40)</td>
<td>49.9 (46.7 – 53.1)</td>
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<td></td>
<td>86.8 (8650; 7141)</td>
<td>78.2 (74.6 – 81.9)</td>
<td>87.6 (86.8 – 88.3)</td>
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<th>NUMBER AND SEX OF CHILDREN</th>
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<tr>
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<td>1</td>
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<td>24.2 (2411; 2352)</td>
<td>14.6 (11.7 – 17.4)</td>
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<tr>
<td></td>
<td>34.8 (3471; 3464)</td>
<td>43.9 (39.7 – 48.2)</td>
</tr>
<tr>
<td></td>
<td>26.5 (2640; 2569)</td>
<td>30.7 (27.0 – 34.4)</td>
</tr>
<tr>
<td></td>
<td>9.7 (967; 958)</td>
<td>7.2 (5.1 – 9.2)</td>
</tr>
<tr>
<td></td>
<td>4.8 (476; 494)</td>
<td>3.6 (2.2 – 5.1)</td>
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|                            | 0              | 1                   | 2                   | 3                   | 4+      |
|                            | 32.0 (3189; 3148) | 27.3 (23.2 – 31.4) | 32.4 (31.1 – 33.7) | 33.3 (31.9 – 34.7) | Ref     |
|                            | 33.6 (3349; 3262) | 37.1 (33.0 – 41.1) | 33.3 (31.9 – 34.7) | 18.1 (17.0 – 19.3) | 1.14 (0.89 – 1.46) |
|                            | 18.5 (1841; 1827) | 22.3 (18.8 – 25.8) | 8.8 (8.0 – 9.6) | 7.3 (6.5 – 8.2) | 1.34 (0.997 – 1.79) |
|                            | 8.7 (864; 896) | 7.1 (5.1 – 9.1) | 1.12 (0.80 – 1.56) | 1.40 (0.90 – 2.19) | 1.03 (0.71 – 1.51) |
|                            | 7.3 (723; 704) | 6.3 (4.0 – 8.5) | 1.24 (0.54 – 2.87) |                   | 1.16 (0.86 – 1.57) |

1 Note: Of women who had an abortion from Nepali year 2062 until time of survey (n=506), 38% had dilation and curettage, 24% had manual vacuum aspiration, 20% took unspecified tablets, 9% had a medical abortion, and 9% took other actions (injection, catheter, unspecified) for their most recent abortion. Most (59%) received these services from a physician. Services received for the most recent abortion were predominantly from the private (39%) and NGO (33%) sectors, rather than the government sector (20%).
Abortion in Nepal: Review of Policy, Epidemiology, and Access

Timeline of legalization from 2002 to present

<table>
<thead>
<tr>
<th>2002</th>
<th>2004</th>
<th>2006</th>
<th>2009</th>
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<tbody>
<tr>
<td>Nepal legalizes abortion through 12 weeks of pregnancy in all cases, through 18 weeks in cases of rape/incest, and through duration of pregnancy if life of mother is at risk or fetus is deformed</td>
<td>First government abortion services offered at Maternity Hospital, Kathmandu</td>
<td>Interim Constitution recognizes women’s rights as fundamental rights</td>
<td>Lakshmi Dhikta v Nepal Supreme Court (filed in 2007) rules that poverty cannot limit access to abortion</td>
</tr>
</tbody>
</table>

History of abortion policy reform

Prior to legalization in 2002, Nepal had some of the most restrictive abortion laws in the world. Women receiving abortion were routinely imprisoned on charge of infanticide, which carries a sentence of life-long imprisonment.¹ As many as one-fifth of women in Nepali prisons before 2002 were branded as murderers on the basis of illegal abortion.² These restrictions had extensive negative impacts on women’s health: by 1994, the Nepal abortion rate was estimated to be 117 per 100,000 women and all abortions were clandestine and unsafe.³ Prior to legalization unsafe abortion was cause for up to 50% of all maternal death⁴ and complications from unsafe abortion made up almost 60% of all women’s hospital admissions.⁵ The amendment change by the Nepal parliament came in 2002 after three decades of reform and political pressure, though it was not until two years later in 2004 that the first government hospitals began providing comprehensive abortion care serves.⁶ The law permitted women to terminate any pregnancies of 12 weeks gestation or less, pregnancies of 18 weeks gestation if the pregnancy was a result of rape or incest, or pregnancies of any duration if life of the mother was at risk or if the fetus was deformed. The law prohibited abortion without the consent of the woman, sex-selective abortion, and abortion performed outside the legal criteria.²

With the policy change came efforts by social justice advocates, local NGOs, international organizations, and the government to disseminate information about abortion access and to respond to the deep-rooted abortion stigma. However, many women still face social and gender equity barriers that inhibit their ability to terminate an unwanted pregnancy.

In 2007, Lakshmi Dhikta, an impoverished, rural woman, became pregnant for the sixth time and was unable to get a legal abortion because she could not pay the Nepali Rupees 1130 fee ($20 USD at the time).⁷ A group of human rights lawyers and several legal groups advocated for Lakshmi’s rights, filing a case in 2007 that catalyzed a 2009 Nepal Supreme Court ruling that the government must set up a fund to cover the cost of abortion for poor and rural women and invest resources to meet the demand for abortion services and education⁷. Additionally, the court created more specific language in abortion law including the below arguments²:

- A fetus does not have legal status as human life
- The right to abortion is central to the right to equality and non-discrimination
• A woman should not be forced to use her body in ways she does not want to and denial of a legal abortion results in forced pregnancy and childbirth that causes harm to the woman
• A woman has a right to privacy when deciding to have an abortion
• Compensation is warranted when a woman is forced to continue an unwanted pregnancy

Epidemiology of who is getting abortion and where
The Nepal 2011 Demographic and Health Survey reports that 8% of all pregnancies in Nepal end in abortion. Abortion uptake is higher among women age 20 and above (for women under 20, 2.8% of pregnancies ended in abortion compared to 8.1 and 13.7 in women age 20-34 and 35-39, respectively) and for a third or higher order pregnancy (pregnancy order and percent of aborted pregnancies: first order, 1.5%; second, 5.2%; third, 10.7%; fourth, 15.8%; fifth or higher, 12.5%). The rates of pregnancy ending in abortion are twice as high in the hill and Terai zones compared to the mountain zones, likely reflecting lack of knowledge and access to services. The Western region of Nepal has higher rates of abortion than other development regions, specifically in the Western Terai subregion where 15% of pregnancies end in abortion. Abortion uptake is more common in wealthier households where 18% of pregnancy ends in abortion compared to 3% in the poorest families.

Factors influencing abortion access and uptake
Nepali women report top reasons for choosing abortion as: not wanting anymore children (20%), inability to financially care for the child (12%), her husband/partner not wanting the child (12%), wanting to space births (10%), health reasons (10%), and to delay childbearing (7%).

A minority (38%) of women age 15-49 believes that abortion in Nepal is legal, and even then there is confusion as to timeframe of legal abortion and maternal health circumstances that permit abortion after first trimester. Social equity factors have a direct relationship with knowledge about abortion legality: 2/3 of women with a School Leaving Certificate (equivalent to high school) or higher, and half of women with some secondary education believe that abortion is legal, along with 54% of women in the highest wealth quintile.

Of women who had an abortion between 2006 and 2011, 48% report spending more than 1,500 Nepali Rupees (about USD $17) for the procedure. Only 6% of women were able to obtain an abortion for free. About 90% of Nepal’s 30 million person population live in rural areas and survive as subsistence farmers, with 37% of the total population living on less than $1 per day. The economic strife of many Nepali families presents a major barrier to abortion access. The mountainous geography and lack of road infrastructure inhibit many rural women from accessing information about legalization, the changing culture of women’s rights in Nepal, and the ability to find a center with comprehensive abortion care.

Availability of Care: service providers and abortion care
Women can get an abortion at 245 registered sites in all 75 districts of Nepal ranging from district hospitals, primary health care centers, health posts, to private hospitals. However, the mountainous and foothill geography of this Himalayan region creates tremendous challenges in terms of health education and health care access in rural areas. Of women age 15-49, 59% report knowing a place where safe abortion can be obtained with higher knowledge among urban,
educated, and wealthy women. Those reporting this knowledge were more likely to mention the government sector (71%) than private sector (58%) or NGO sector (29%).

The most common method for abortion has changed from manual vacuum aspiration (MVA) to medical abortion (MA), which is a more viable option in rural areas with limited surgery access. Of women who have had abortions, 39% had dilation and curettage, 24% had manual vacuum aspiration, 20% took unspecified tablets, and 9% had medical abortion, and 5% took other actions (injection, catheter, unspecified).

References
5 Family Health Division Ministry of Health (1998), Maternal Mortality and Morbidity Study.
7 Center for Reproductive Rights – how do I site this website
8 Nepal Demographic and Health Survey 2011
Abortion in Nepal – Abstracts from Last 10 years

Reference Color:
- Attitudes and Knowledge of Women
- Service Providers and Abortion Care
- Maternal Mortality Reduction
- Sex Selective Abortion
- Policy

<table>
<thead>
<tr>
<th>Attitudes and Knowledge of Women</th>
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<tr>
<td><strong>Abortion legalized: challenges ahead.</strong></td>
</tr>
<tr>
<td>Singh M¹, Jha R.</td>
</tr>
<tr>
<td><strong>Author information</strong></td>
</tr>
<tr>
<td>Abstract</td>
</tr>
<tr>
<td><strong>OBJECTIVE:</strong></td>
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<tr>
<td>To see whether advocacy for abortion law and comprehensive abortion care (CAC) sites after legalization of abortion in Nepal is adequate among educated people (above school leaving certificate).</td>
</tr>
<tr>
<td><strong>METHOD:</strong></td>
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<tr>
<td>150 participants were assigned randomly who agreed to be in the survey and were given structured questionnaires to find out their perception of abortion and CAC sites.</td>
</tr>
<tr>
<td><strong>RESULT:</strong></td>
</tr>
<tr>
<td>Majority know abortion is legalized and majority have positive attitude about legalization of abortion, however majority are not aware of abortion service in CAC sites and none knew the cost of abortion service.</td>
</tr>
<tr>
<td><strong>CONCLUSION:</strong></td>
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<tr>
<td>Proper and adequate advocacy of the new abortion law and CAC service is essential.</td>
</tr>
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<td>PMID: 18603993</td>
</tr>
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<td>[PubMed – indexed for MEDLINE]</td>
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| Factors for abortion seeking among women attending health facilities. |
| Amatya A. |
| **Author information** |
| **Abstract** |

Q: What is attitude towards abortion and knowledge of legalization in educated Nepalis?
**Sample:** 150 participants who passed School Leaving Certificate (SLC)
**Date:** 2007
**Findings:** Majority know abortion is legal and have positive attitude. But majority not aware of abortion service in CAC sites or cost of abortion.

Q: What are factors for women seeking abortion who attend health facilities?
**Sample:** 450 women who attended 3 safe abortion centers in Kathmandu valley
BACKGROUND:
Unsafe abortion contributes to high maternal mortality in the country, which is 281 per 100,000 live births. In line with the expansion of safe abortion services to all 75 districts, it was time for us to look into the depths of the determinants that lead women to seek abortion.

METHODS:
A cross-sectional descriptive study was conducted in three centers providing safe abortion services in Kathmandu valley, viz. Paropakar Maternity and Women’s Hospital, Marie Stopes International (MSI), Nepal, at SatDobato and Tribhuvan University Teaching Hospital (TUTH) from 16th July to 31st August 2009. A total of 450 respondents were interviewed, out of them 270 (60%) were from public centers and 180 (40%) from INGO run centers.

RESULTS:
It was observed that 32% of the respondents were in the group of 25-29 years; more than a third (34.9%) of the respondents was pregnant for the third time; 58% were using some kind of contraceptive prior to this pregnancy and 90.4% showed a desire to use some kind of contraceptive after the abortion. The main reasons cited for termination were completed desired family size and mistiming and 101 (22.4%) had a history of previous induced abortion.

CONCLUSIONS:
There was a significant association between the uses of contraceptive methods prior to the index pregnancy in women who had sought previous induced abortion and it was also seen that women having previous termination had completed their desired family size of two and the age of the last child was above five.

PMID: 22929708
[PubMed – indexed for MEDLINE]

Level of awareness about legalization of abortion in Nepal: a study at Nepal Medical College Teaching Hospital.
Tuladhar H1, Risal A.

Author information
Abstract
World Health Organization (WHO) estimates that about 25.0% of all pregnancies worldwide end in induced abortion, approximately 50 million each year. More than half of these abortions are performed under unsafe conditions resulting in high maternal mortality. In line with the expansion of safe abortion services to all 75 districts, it was time for us to look into the depths of the determinants that lead women to seek abortion.

Date: July, August 2009
Findings:
32% women getting an abortion were 25-29 years old.
34.9% were pregnant for third time.
58% using contraception prior to this pregnancy.
90% desire contraceptive use post-abortion.

Q: What is level of awareness about abortion and conditions when it is permitted?
Sample: 200 women attending GYN outpatient dept of Nepal Med. College Teaching Hospital.
Date: 2010
Findings: 66% aware of legalization. Those more aware were age 20-34, urban, service holders, Brahmin/Chhetri caste, and with higher education.
maternal mortality ratio especially in developing countries like Nepal. Abortion was legalized under specified conditions in March 2002 in Nepal. But still a large proportion of population is unaware of the legalization and the conditions under which it is permitted. Legal reform alone cannot reduce abortion related deaths in our country. This study was undertaken with the main objective to study the level of awareness about legalization of abortion in women attending gynecology out patients department of Nepal Medical College Teaching Hospital (NMCTH), which will give a baseline knowledge for further dissemination and advocacy about abortion law. Total 200 women participated in the study. Overall 133 (66.5%) women said they were aware of legalization of abortion in Nepal. Women of age group 20-34 years, urban residents, service holders, Brahmin/Chhetri caste and with higher education were more aware about it. Majority (92.0%) of the women received information from the media. Detail knowledge about legal conditions under which abortion can be performed specially in second trimester was found to be poor. Large proportion (71.0%) of the women was still unaware of the availability of comprehensive abortion care services at our hospital, which is being provided since last seven years. Public education and advocacy campaigns are crucial to create awareness about the new legislation and availability of services. Unless the advocacy and awareness campaign reaches women, they are not likely to benefit from the legal reform and services.

PMID: 21222401
[PubMed – indexed for MEDLINE]

Practices and perceptions on contraception acceptance among clients availing safe abortion services in Nepal.
Khanal V¹, Joshi C, Neupane D, Karkee R.

Author information
Abstract
BACKGROUND:
The Government of Nepal has implemented safe abortion policy since 2002. There are 245 approved sites providing safe abortion services to women across the country. Family planning legalization is one of the components of the safe abortion policy, which is important to reduce unwanted pregnancy, maternal morbidity and mortality due to the consequences of unsafe abortion and the service burden.

92% said information was from media
71% Unaware of CAC at this hospital (has been provided for 7 yrs)

Q: What are perceptions, practices and factors affecting the use of family planning among abortion clients attending safe abortion services
Sample: 58 women waiting for safe abortion in Paropkar Maternity Hospital
Date: Sept. 2008
Findings: majority of the respondents were Hindus (83%), residing in Kathmandu district (76%); of the age group 20-29 years (69%); and 98% were married
20% had previous spontaneous or induced abortion

Main reason: don’t want more children (45%)
OBJECTIVES:
This study explains the perceptions, practices and factors affecting the use of family planning among abortion clients attending safe abortion services in Nepal.

METHODS:
A cross sectional study was carried out on September, 2008 enrolling 58 women who were waiting in the dressing room for safe abortion services in Paropkar Maternity Hospital, Nepal. All women attending hospital clinic for receiving safe abortion services were approached for interview till the targeted number was fulfilled. A convenience sampling was applied to reach the sample size.

RESULTS:
Of the 58 respondents, majority of the respondents were Hindus (83%), residing in Kathmandu district (76%); of the age group 20-29 years (69%); and 98% were married. One fifth (20.68 %) of the respondents had previous history of spontaneous or induced abortion. The main reason for abortion did not want any more babies/ complete family (45%). The knowledge of modern contraception was high (98.27%). The knowledge of emergency contraception was low (25.9%). Side effects were the main reason (48%, n=31) for discontinuation of contraceptives. Intention to use some modern family planning methods after the abortion was expressed by 83% clients. The major enabling factor for continued contraceptive use was the absence of side effects. The family planning legalization was acceptable for 91% clients.

CONCLUSION:
Knowledge, acceptance of legalization service and intention to use family planning measure was high in the study participants. There is need to provide skills on adapting with the adverse effect of family planning measure through continuous education and reinforcement.

PMID: 22609503
[PubMed – indexed for MEDLINE]

Factors associated with choice of medical or surgical abortion among women in Nepal.
Tamang A¹, Tuladhar S, Tamang J, Ganatra B, Dulal B.

Abstract

OBJECTIVE:

Q: What factors involved with women choosing medical abortion (MA) vs. manual vacuum aspiration (MVA)?

Sample: 1,041 women receiving abortions in 3 clinics

Date: Jan to May 2010

Findings: Many women not aware of abortion options before coming to clinic. Of those who knew of methods, odds of choosing MA were 3x higher.

Of those who decided MVA before receiving info at clinic, 29% chose MA. Only 10% intending to accept MA opted for MVA
To investigate factors associated with women’s choice of medical abortion (MA) or manual vacuum aspiration (MVA) in Nepal, where the government recently began offering MA services.

**METHODS:**
Structured exit interviews were conducted between January 19 and May 21, 2010, with women with a pregnancy of 63 days or less who underwent abortions at 7 clinics in 3 districts of Nepal. All those who accepted MA, and 1 in each 4 or 5 of those who underwent MVA, were invited for an interview. Of those interviewed, 499 chose MA and 542 underwent MVA.

**RESULTS:**
Many women were not aware of both abortion methods before they came to the clinic. The odds of choosing MA were more than 3 times as high among those who knew about both methods as among those who did not. Of those who had decided on MVA prior to receiving information at the clinic, 29% chose MA. In contrast, only 10% of those who intended to accept MA opted for MVA after receiving information and counseling. Women who had more education, were of the upper Hindu caste, or resided in urban areas were more likely to choose MA.

**CONCLUSION:**
Information and counseling have a large impact on the women’s choice of an abortion method. To expand access to MA and to ensure that women can make an informed choice, it is essential that the government of Nepal create positions for trained counselors at all public abortion clinics.

Q: What is effect of interpersonal communication behavior change pilot intervention to educate women about unplanned pregnancies and unsafe abortion

Sample: participants in the Dialogues for Life program from 2004 to 2006

Date: 2004-2006

Findings: Dialogue based interpersonal communication intervention can help change behavior and is feasible in low-resource, low-literacy setting. Dialogue groups can effectively address stigmatizing and sensitive health issues.
social and cultural barriers to accessing safe abortion services and preventing unwanted pregnancy. Interpersonal communication interventions play an important role in overcoming these obstacles, including as part of broad educational- and behavioral-change efforts. This article presents results from an interpersonal communication behavior change pilot intervention, Dialogues for Life, undertaken in Nepal from 2004 to 2006, after abortion was legalized in 2002. The project aimed to encourage and enable women to prevent unplanned pregnancies and unsafe abortions and was driven by dialogue groups and select community events. The authors’ results confirm that a dialogue-based interpersonal communication intervention can help change behavior and that this method is feasible in a low-resource, low-literacy setting. Dialogue groups play a key role in addressing sensitive and stigmatizing health issues such as unsafe abortion and in empowering women to negotiate for the social support they need when making decisions about their health.

PMID: 21128150 [PubMed – indexed for MEDLINE]
PMCID: PMC3118540

Emerging challenges in family planning programme in Nepal. Shrestha DR¹, Shrestha A, Ghimire J.

Author information

Abstract
Family planning is a priority program of the Government of Nepal. Despite political instability in the last two decades, Nepal has achieved remarkable progress in the overall status of reproductive health, including family planning. Married women of reproductive age have been increasingly using contraceptive from 1980s to 2006. However, Nepal Demographic Health Survey 2011 has shown unexpected results on contraceptive prevalence rate. There had been a notable decline in the prevalence rate between 2006 and 2011, creating concerns among various stakeholders working in family planning programs. This paper analyzes this situation and identifies possible reasons for the stagnated contraceptive prevalence rate in Nepal. High proportion of spousal separation, an increased use of traditional methods, abortion, emergency contraception, and a lack of innovative approaches to cater services to difficult-to-reach or special sub-groups are possible reasons. To improve the contraceptive prevalence, the family planning program should be implemented more strategically. Further data analysis, initiation

Q: What is the general trend of family planning and contraception in Nepal over the last decades?
Sample: DHS 2011
Date: 2006-2011
Findings: Notable decline in the prevalence of contraceptive use from 2006 to 2011 when previously it was increasing. Reasons could include: High proportion of spousal separation, an increased use of traditional methods, abortion, emergency contraception, and a lack of innovative approaches to cater services to difficult-to-reach or special sub-groups

Q: What are reasons for seeking abortion and how effective is Misoprostol in preparing the cervix
Sample: 57 women having second trimester abortion
Date: 2010
Findings:
of best practices to fulfill family planning needs of special groups, functional integration of family planning services into general health services, effective counseling and behavior change communication to prevent unwanted pregnancies, and increased access to modern family planning methods could be the stepping stones to improve contraceptive prevalence rate and the overall FP program in Nepal.

PMID: 23034371
[PubMed – indexed for MEDLINE]

Surgical abortion in second trimester: initial experiences in Nepal.
Shrivastava V1, Bajracharya L, Thapa S.

Author information

Abstract

INTRODUCTION:
In spite of legalization of abortion and making safe abortion available at affordable price at accessible distance to almost everyone, unsafe abortion especially second trimester abortion is still a big health problem in Nepal.

OBJECTIVE:
The objective of the study is to legal the demographic profile, reasons for seeking abortion and to see the effectiveness of Misoprostol in preparing the cervix.

MATERIALS AND METHODS:
A prospective study was done in the two second trimester abortion trainings conducted in Maternity hospital, Kathmandu. Total 57 clients had second trimester abortion performed. Information was collected from structured questionnaire and then data was analysed.

RESULTS:
Commonest reason for seeking abortion was, multiparity (61.4%). Common reasons for second trimester abortion were, completed family size with unwanted pregnancy (61.4%), unwanted pregnancy in married (10.52%) unwanted pregnancy in unmarried (5.26%).

CONCLUSIONS:
Second trimester abortion is one of the most common procedures performed in reproductive-aged women and when performed by a skilled provider in the appropriate setting, it is one of the safest surgeries, if it is well supported by change in policy of the country and acceptability of the people.

PMID: 21209529

61.4% seek abortion because of multiparity.

Specifically for second trimester, reasons are completed family size with unwanted pregnancy (61.4%), unwanted pregnancy in married (10.52%) unwanted pregnancy in unmarried (5.26%).

Q: how effective are program interventions in early years of abortion legalization
Sample: women ages 15-44, no sample size given in abstract
Date: 2006 DHS
Findings: 32.3% aware abortion is legal, 56.5% know where they can obtain an abortion

Factors that influence this knowledge are secondary or higher level of education, certain ecological-development subregions (not listed specifically which)
Asia Pac J Public Health. 2012 Oct 2. [Epub ahead of print]

Women’s Awareness of Liberalization of Abortion Law and Knowledge of Place for Obtaining Services in Nepal.

Thapa S1, Sharma SK.

**Author information**

**Abstract**

In Nepal, following the liberalization of the abortion law, expansion and scaling up of services proceeded in parallel with efforts to create awareness of the legalization status of abortion and provide women with information about where services are available. This article assesses the effectiveness of these programmatic interventions in the early years of the country’s abortion program. Data from a 2006 national survey are analyzed with 2 outcome measures—awareness of the legal status of abortion and knowledge of places to obtain abortion services among women ages 15 to 44 years. The variations in the outcomes are analyzed by ecological-development subregion, residence, education, household wealth quintile, age, and number of living children. Bivariate and multivariate logistic regression techniques are used. Overall 32.3% (95% confidence interval = 31.4% to 33.2%) of the respondents were aware of the legal status of abortion and 56.5% (95% confidence interval = 55.5% to 57.4%) knew of a place where they could obtain an abortion. Both outcome measures showed considerable variations by the covariates. Women with secondary or higher level of education had the highest odds ratio of being aware of the law and having knowledge of a source for abortion services. Ecological-development subregions showed the second highest levels of odds ratios. Significant disparities among the population subgroups existed in the diffusion of awareness of the legal status of abortion and having knowledge of a place for abortion services in Nepal. The results point to which population subgroups to focus on and also serve as a baseline for assessing future progress in the diffusion process.

PMID: 23000795

**Q:** what is women’s awareness of liberalization of abortion law in Nepal based on DHS 2011

**Date:** 2011

**Sample:** DHS national

**Findings:** of women age 15-44, 38.7% knew abortion is legal and 59.8% knew of place to have one

Over 5 yr period knowledge of legality of abortion increased by 6.4% and awareness of service delivery sites increased 3.3% but mostly in group with higher education and wealth

Must intensify efforts to reach disadvantaged women
This paper assesses women’s awareness of the liberalization of abortion law and their knowledge of a place for obtaining abortion services in Nepal. The data are from the 2011 Nepal Demographic and Health Survey. The results are compared with data from a similar survey conducted in 2006. Variations in the two measures among several population sub-groups are analysed by performing logistic regression. Among women aged 15-44, 38.7% (CI: 37.8, 39.6) were aware of the legal status of abortion and 59.8% (CI: 58.9, 60.7) knew of a place to have an abortion. The percentages of both measures varied considerably by various population sub-groups. Over a 5-year period, knowledge of the legality of abortion increased by 6.4 percentage points, and awareness of service delivery sites increased by 3.3 percentage points. The increases in both measures were, however, largely limited to higher wealth quintiles and those with higher educational attainment. The results suggest the need to intensify efforts to educate women in Nepal, particularly the most disadvantaged women, about abortion law, including the conditions under which abortion is permitted, and where to access safe abortion services.

PMID: 23953960
[PubMed – in process]


Contraceptive knowledge and attitudes among women seeking induced abortion in Kathmandu, Nepal.
Berin E1, Sundell M1, Karki C2, Brynhildsen J1, Hammar M1.

Abstract

OBJECTIVE: To map the knowledge about and attitudes toward birth control methods among women in Kathmandu, Nepal, and to compare the results between women seeking an induced abortion and a control group.

METHOD: This was a cross-sectional cohort study with matched controls. Women aged 15-49 years seeking medical care at the Department of Gynecology and Obstetrics at Kathmandu Medical College were included and interviewed. A case was defined as a woman who sought an elective medical or surgical abortion. A control was defined as a woman who sought medical care at the...
outpatient department or had already been admitted to the ward for reasons other than elective abortion. A questionnaire developed for the study – dealing with different demographic characteristics as well as knowledge about and attitudes toward contraceptives – was filled out based on the interview.

RESULTS:
A total of 153 women were included: 64 women seeking an abortion and 89 controls. Women seeking an abortion had been pregnant more times than the control group and were more likely to have been informed about contraceptives. Women with higher education were less likely to seek an abortion than women with lower education. There was no significant difference in knowledge about and attitudes toward contraceptives between cases and controls. The women considered highest possible effectiveness to be the most important feature when deciding on a birth control method.

CONCLUSION:
Women seeking abortion in Kathmandu had shorter education and a history of more pregnancies and deliveries than women in the control group. Education and counseling on sex and reproduction as well as on contraceptive methods probably need to be improved in Nepal to avoid unwanted pregnancies. Attitudes about contraceptives need to be further investigated to develop better and more effective methods to educate women about family planning in order to increase reproductive health.

KEYWORDS:
Nepal; abortion; contraceptive knowledge; family planning

Q: Why are women getting abortions? What are post abortion complications and use of contraceptives?
Sample: 160 who asked for CAC
Date: July 04 to April 05
Findings:
Main reason for performing CAC was unwanted pregnancy in 66.75%. Complication following CAC was 1.25%. Post CAC contraception was adopted by 93%. Most preferred method was Inj. Depo-Provera
Kathmandu Medical College after enlisting with Ministry of Health started this service from June 2004.

**OBJECTIVE:**
This study was carried out to know–1. Reasons for undergoing CAC service. 2. The complications after the CAC services. 3. The various contraceptive methods adopted by the client following CAC.

**METHODOLOGY:**
Hospital based prospective study was carried out in Department of Obstetrics & Gynaecology at KMCTH from the period July 2004 to April 2005. Total 160 patients who asked for CAC were enrolled in the study. Counseling, history taking and general examination and per vaginal examination was carried out at the visit. CAC was performed with premedication with Doxycycline 100 mg and Ibuprofen 400 mg half an hour before the procedure. Paracervical block was also given with 1% xylocaine. MVA was performed as described in standard techniques. Patient was discharged after 1-2 hours of observation and with contraception opted by the clients.

**RESULTS:**
Main reason for performing CAC was unwanted pregnancy in 66.75%. Complication following CAC was 1.25%. Post CAC contraception was adopted by 93%. Most preferred method was Inj. Depo-Provera

**CONCLUSION:**
The reason for CAC service asked by the patients was unwanted pregnancy. CAC service performed had minimal complication and also gave the opportunity for contraception.

PMID: 18650581
[PubMed – indexed for MEDLINE]


Unsafe abortion after legalization in Nepal: a cross-sectional study of women presenting to hospitals.
Rocca CH¹, Puri M, Dulal B, Bajracharya L, Harper CC, Blum M, Henderson JT.

**Q:** what are abortion practices of women requiring post abortion care?

**Sample:** 527 women presenting w/ complications from induced abortion in 2010

**Date:** 2010

**Findings:** 44% aware abortion is legal in NP, medically induced abortion used by 68% of women with 89% of those taking unsafe, ineffective, or unknown substances

These women were more likely than those doing surgical abortion to obtain info from pharmacists and to have informed no one about the abortion

These women were less likely to know that abortion is legal and more likely to choose method because of availability (not necessarily certified care)
**DESIGN:**
Cross-sectional study.

**SETTING:**
Four tertiary-care hospitals in urban and rural Nepal.

**SAMPLE:**
A total of 527 women presenting with complications from induced abortion in 2010.

**METHODS:**
Women completed questionnaires on their awareness of the legal status of abortion and their abortion-seeking experiences. The method of induction and whether the abortion was obtained from an uncertified source was documented. Multivariable logistic regression was used to identify associated factors.

**MAIN OUTCOME MEASURES:**
Induction method; uncertified abortion source.

**RESULTS:**
In all, 234 (44%) women were aware that abortion was legal in Nepal. Medically induced abortion was used by 359 (68%) women and, of these, 343 (89%) took unsafe, ineffective or unknown substances. Compared with women undergoing surgical abortion, women who had medical abortion were more likely to have obtained information from pharmacists (161/359, 45% versus 11/168, 7%, adjusted odds ratio [aOR] 8.1, 95% confidence interval 4.1-16.0) and to have informed no one about the abortion (28/359, 8% versus 3/168, 2%, aOR 5.5, 95% CI 1.1-26.9). Overall, 291 (81%) medical abortions and 50 (30%) surgical abortions were obtained from uncertified sources; these women were less likely to know that abortion was legal (122/341, 36% versus 112/186, 60%, aOR 0.4, 95% CI 0.2-0.7) and more likely to choose a method because it was available nearby (209/341, 61% versus 62/186, 33%, aOR 2.5, 95% CI 1.5-4.3), compared with women accessing certified sources.

**CONCLUSIONS:**
Among women presenting to hospitals in Nepal with complications following induced abortion of pregnancy, the majority had undergone medically induced abortions using unknown substances acquired from uncertified sources. Women using medications and those accessing uncertified providers were less aware that abortion is now legal in Nepal. These findings highlight the need for continued improvements in the provision and awareness of abortion services in Nepal.

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**Q:** what are myths and misconceptions that prompt women towards unsafe abortion practices?

**Sample:** focus groups of women in underserved community

**Date:** before 2009

**Findings:** misconception of drinking vegetable juice and herbal juices and applying hot pot over abdomen can abort pregnancy

Many participants also belief health care providers should be consulted for abortion
Myths and misconceptions about abortion among marginalized underserved community.

Thapa K¹, Karki Y, Bista KP.

Author information

Abstract

INTRODUCTION:
Unsafe abortion remains a huge problem in Nepal even after legalization of abortion. Various myths and misconceptions persist which prompt women towards unsafe abortive practices.

METHODS:
A qualitative study was conducted among different groups of women using focus group discussions and in depth interviews. Perception and understanding of the participants on abortion, methods and place of abortion were evaluated.

RESULTS:
A number of misconceptions were prevalent like drinking vegetable and herbal juices, and applying hot pot over the abdomen could abort pregnancy. However, many participants also believed that health care providers should be consulted for abortion.

CONCLUSIONS:
Although majority of the women knew that they should seek medical aid for abortion, they were still possessed with various misconceptions. Merely legalizing abortion services is not enough to reduce the burden of unsafe abortion. Focus has to be given on creating awareness and proper advocacy in this issue.

PMID: 21105549
[PubMed – indexed for MEDLINE]

Q: Can midlevel health-care providers administer early medical abortion as safely and effectively as doctors?

Sample: Of 1295 women screened, 535 were randomly assigned to a doctor and 542 to a midlevel provider

Date: before 2011

Findings: The provision of medical abortion up to 9 weeks gestation by
auxiliary nurse midwives) was as safe and effective as that provided by doctors in Nepal.

METHODS:
This multicentre randomised controlled equivalence trial was done in five rural district hospitals in Nepal. Women were eligible for medical abortion if their pregnancy was of less than 9 weeks (63 days) and if they resided less than 90 min journey away from the study clinic. Women were ineligible if they had any contraindication to medical abortion. We used a computer-generated randomisation scheme stratified by study centre with a block size of six. Women were randomly assigned to a doctor or a midlevel provider for oral administration of 200 mg mifepristone followed by 800 μg misoprostol vaginally 2 days later, and followed up 10-4 days later. The primary endpoint was complete abortion without manual vacuum aspiration within 30 days of treatment. The study was not masked. Abortions were recorded as complete, incomplete, or failed (continuing pregnancy). Analyses for primary and secondary endpoints were by intention to treat, supplemented by per-protocol analysis of the primary endpoint. This trial is registered with ClinicalTrials.gov, NCT01186302.

FINDINGS:
Of 1295 women screened, 535 were randomly assigned to a doctor and 542 to a midlevel provider. 514 and 518, respectively, were included in the analyses of the primary endpoint. Abortions were judged complete in 504 (97.3%) women assigned to midlevel providers and in 494 (96.1%) assigned to physicians. The risk difference for complete abortion was 1.24% (95% CI -0.53 to 3.02), which falls within the predefined equivalence range (-5% to 5%). Five cases (1%) were recorded as failed abortion in the doctor cohort and none in the midlevel provider cohort; the remaining cases were recorded as incomplete abortions. No serious complications were noted.

INTERPRETATION:
The provision of medical abortion up to 9 weeks’ gestation by midlevel providers and doctors was similar in safety and effectiveness. Where permitted by law, appropriately trained midlevel health-care providers can provide safe, low-technology medical abortion services for women independently from doctors.

FUNDING:
UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development and Research Training in Human Reproduction (HRP), Department of Reproductive Health and Research (RHR), World Health Organization.

Comment in
- Midlevel health-care providers key to MDG 5. [Lancet. 2011]
"Sometimes they used to whisper in our ears": health care workers' perceptions of the effects of abortion legalization in Nepal.

Puri M1, Lamichhane P, Harken T, Blum M, Harper CC, Darney PD, Henderson JT.

Abstract

BACKGROUND:
Unsafe abortion has been a significant cause of maternal morbidity and mortality in Nepal. Since legalization in 2002, more than 1,200 providers have been trained and 487 sites have been certified for the provision of safe abortion services. Little is known about health care workers' views on abortion legalization, such as their perceptions of women seeking abortion and the implications of legalization for abortion-related health care.

METHODS:
To complement a quantitative study of the health effects of abortion legalization in Nepal, we conducted 35 in-depth interviews with physicians, nurses, counselors and hospital administrators involved in abortion care and post-abortion complication treatment services at four major government hospitals. Thematic analysis techniques were used to analyze the data.

RESULTS:
Overall, participants had positive views of abortion legalization - many believed the severity of abortion complications had declined, contributing to lower maternal mortality and morbidity in the country. A number of participants indicated that the proportion of women obtaining abortion services from approved health facilities was increasing; however, others noted an increase in the number of women using unregulated medicines for abortion, contributing to rising complications. Some providers held negative judgments about abortion patients, including their reasons for abortion. Unmarried women were subject to especially strong negative perceptions. A few of the health workers felt that the law change was encouraging unmarried sexual activity and carelessness around pregnancy prevention and abortion, and that repeat abortion was becoming a problem. Many providers believed that although patients were less fearful than
before legalization, they remained hesitant to disclose a history of induced abortion for fear of judgment or mistreatment.

**CONCLUSIONS:**

Providers were generally positive about the implications of abortion legalization for the country and for women. A focus on family planning and post-abortion counseling may be welcomed by providers concerned about multiple abortions. Some of the negative judgments of women held by providers could be tempered through values-clarification training, so that women are supported and comfortable sharing their abortion history, improving the quality of post-abortion treatment of complications.

PMID: 22520231

[PubMed - indexed for MEDLINE]

PMCID: PMC3434092


**Implementation of legal abortion in Nepal: a model for rapid scale-up of high-quality care.**

Samandari G1, Wolf M, Basnett I, Hyman A, Andersen K.

**Author information**

**Abstract**

Unsafe abortion's significant contribution to maternal mortality and morbidity was a critical factor leading to liberalization of Nepal's restrictive abortion law in 2002. Careful, comprehensive planning among a range of multi-sectoral stakeholders, led by Nepal's Ministry of Health and Population, enabled the country subsequently to introduce and scale up safe abortion services in a remarkably short timeframe. This paper examines factors that contributed to rapid, successful implementation of legal abortion in this mountainous republic, including deliberate attention to the key areas of policy, health system capacity, equipment and supplies, and information dissemination. Important elements of this successful model of scaling up safe legal abortion include: the pre-existence of post-abortion care services, through which health-care providers were already familiar with the main clinical technique for safe abortion; government leadership in coordinating complementary contributions from a wide range of public- and private-sector actors; reliance on public-health evidence in formulating policies governing abortion provision, which led to the embrace of medical abortion and authorization of midlevel providers as key strategies for decentralizing care; and integration of abortion care into existing Safe Motherhood and the broader health system. While challenges remain in ensuring

Q: What factors contributed to rapid and successful legalization of abortion in NP

**Sample:** -

**Date:** analysis since 2002

**Findings:**

Factors: pre-existence of post-abortion care (already familiar with procedures/techniques), government leadership, reliance on public health evidence in making policy governing abortion provision, authorize midlevel providers to perform, integration of abortion care into existing Safe Motherhood and broad health system
that all Nepali women can readily exercise their legal right to early pregnancy termination, the national safe abortion program has already yielded strong positive results. Nepal's experience making high-quality abortion care widely accessible in a short period of time offers important lessons for other countries seeking to reduce maternal mortality and morbidity from unsafe abortion and to achieve Millennium Development Goals.

PMID: 22475782
[PubMed - indexed for MEDLINE]

PMCID: PMC3373381

Safe abortion services in Nepal: initial years of availability and utilization.
Thapa S¹, Malla K, Basnett I.

Author information

Abstract
INTRODUCTION:
Following the liberalization of the very strict Nepalese abortion law in 2002, the first services for safe induced abortion were introduced in 2004 at the nation's largest women's hospital. This paper examines the client profile, the context of demand for services, affordability and satisfaction with services.

DATA AND METHODS:
Data for the analysis came from a survey of women who presented themselves at the hospital for induced abortion services and subsequently received the services.

RESULTS:
Based on a survey of 672 clients, the median age was 26, and most women were married with an average of two living children. The majority reported being impregnated by the husband. Nearly three out of five gave their primary reason for termination as already having the number of children desired; another 42% cited finances. About two-thirds made the decision to abort jointly with the male partner. Most were satisfied with the services received and expenses incurred. About two-fifths reported having used a modern contraceptive method at the time the unwanted pregnancy occurred, while 22.6% reported practising either the safe-period or withdrawal methods.

CONCLUSION:
The clinic has provided affordable, quality abortion services to women in need. Findings also suggest that many areas need
services strengthened, including the continued role of the family planning program in preventing unintended pregnancies.

PMID: 20357559
[PubMed - indexed for MEDLINE]

Triaging patients with post-abortion complications: a prospective study in Nepal.
Thapa S¹, Poudel J, Padhye S.

Author information

Abstract
The first manual vacuum aspiration (MVA) services unit in Nepal was established in 1995 at the country's largest national maternity hospital in Kathmandu. This research sought to assess and evaluate the safety, acceptability, and effectiveness of MVA services. This prospective study was conducted during 12 months in 1998, and follow-up was made at six weeks. Two groups of patients were compared: 529 patients treated in the MVA unit and 236 patients who were clinically eligible for treatment in the MVA unit but were treated instead in the main operation theatre (OT) owing to the unavailability of services in the MVA unit during the hours of their admission. The two groups differed with respect to some of their background characteristics but were similar in their clinical characteristics. The MVA group received contraceptive counseling and services and had significantly shorter stays in hospital. However, the direct cost incurred by the patients, regardless of the type of facility they used, was about the same. Follow-up at six weeks revealed that the MVA patients had significantly fewer complaints and were generally more satisfied with the services they had received than their counterparts. Slightly more than half of the women in the MVA group were using contraception at the time of follow-up compared to no women in the OT group. It is concluded that the MVA unit provided safe, effective, and efficient services to about 50% of all the patients admitted to the hospital with post-abortion complications. An additional 25% of the post-abortion patients could be served if the unit were kept open 24 hours a day, saving resources and time for patients and hospital staff. As a parallel development, both MVA and main OT services would need to be more effectively integrated with outside antenatal and family-planning clinics to address the reproductive health needs of women, thereby reducing the number of patients requiring post-abortion care.

PMID: 15663171

but were instead in main operation theater

Date: 1998
Findings: MVA group had contraceptive counseling and services and had significantly shorter stays in hospital

Cost is same

6 weeks follow up: MVA pts have fewer complaints than OT group

Q: what are reasons for obtaining abortion in Nepal?
Sample: 304 women who received safe abortion services
Date: 8 month period from 8 clinics of Family Planning Association of Nepal
Findings: Maternal education is strong predictor of abortion uptake

Just more than half of clients accompanied by their husband
Safe abortion services in Nepal: some insights.
Duwadi N¹, Shrestha PS.

Abstract
This study attempts to ascertain the reasons that lead women to abortion and assess the extent of the involvement of their husband or male partner in the pregnancy decision making. A total 304 of women who received safe abortion services during the eight-month period from 8 clinics of Family Planning Association of Nepal (FPAN) constitute the sample size of the study. Maternal education was a strong predictor of abortion. The most cited reason for resorting to abortion was that the women had no desire for additional child. Just more than half of the clients were accompanied by their husband. Almost one-third of the women were not practicing any contraception method prior to terminating their pregnancy. Enhancing the access of women to contraceptives and providing a wide choice of methods may offset the rise in demand for abortion. Men should be targeted in all reproductive health and right programs.

PMID: 17593674
[PubMed - indexed for MEDLINE]

Evolution of the post abortion care program in Nepal: the contribution of a national Safe Motherhood Project.
Basnet I¹, Clapham S, Shakya G, McCall M.

Abstract
The objective of this review is to present the findings and lessons learned over the first 4 years (1999-2002) of implementation of post abortion care (PAC) services outside of major urban centers in Nepal, where a significant proportion of services are provided by nurses. The contributions made by a national Safe Motherhood project to the establishment of the National Post abortion Care Program including the promotion of nurse providers within an integrated program of emergency obstetric care services are highlighted. Clinical competency assessments and service utilization data from three district hospital-based post abortion service sites supported by the Nepal Safer Motherhood Project are analyzed. The relationship between the findings of this assessment and two previous assessments, one covering two

Reason: no desire for additional child
1/3 women not practicing any contraception method prior to terminating pregnancy

Q: what have we learned about post-abortion care services from first 4 years of implementation?
Sample: data from three district hospital based post-abortion service sites
Date: 1999-2002

Findings: nurses are at least as competent as physicians in providing post abortion care services

Inclusion of post abortion care into the emergency treatment of obstetric complications provided the environment needed for successful introduction of nurse-led PAC services

Competency-based training of nurse providers is key to making life-saving post abortion care services accessible and affordable in Nepal
districts and one nationwide, are discussed. This review found that nurses are at least as competent as physicians in providing post abortion care services. The inclusion of post abortion care into the emergency treatment of obstetric complications provided the environment needed for successful introduction of nurse-led PAC services. Competency-based training of nurse providers is the key to making life-saving post abortion care services accessible and affordable in Nepal. Ensuring that these nurse providers are able to implement services requires strategic planning, careful advocacy and support from physician colleagues as well as the presence of adequate infrastructure and equipment. The successful introduction of post abortion care services into three district hospitals also offering emergency obstetric care provides an example of how a nurse-led service can be integrated into an emergency obstetric care support project. The project's learning has influenced national policy on the expansion of the post abortion care program throughout Nepal.

PMID: 15207690
[PubMed - indexed for MEDLINE]

Q: How functional are existing abortion services in 12 government approved CAC sites in 3 districts

**Sample:** 12 sites (4 government and 8 NGO)

**Date:** post 2004

**Findings:**
- 33,920 women have used these sites for CAC but only 4.76% use government sites
- 75.64% received service from Marie Stopes International
- Second was Family Planning Assoc of Nepal


**Baseline survey on functioning of abortion services in government approved CAC centers in three pilot districts of Nepal.**

**Karki C, Ojha M, Rayamajhi RT.**

**Abstract**

**BACKGROUND:** Abortion has been legalized in Nepal since September 2002 and under this law, Comprehensive Abortion Care (CAC) service is being provided through listed service providers and listed health facilities from 2004. Nepal Government has prioritized the national safe abortion program and is working with many government and non government partners for providing this service. Till date medical abortion services are not made available at any of the health facility. Government is now preparing to introduce this service in six selected pilot districts.
OBJECTIVE:
This survey was carried out to assess the functioning of existing abortion services in 12 Government approved CAC sites of three districts.

MATERIALS AND METHODS:
Direct observation of the functioning of these centers, assessment of physical facilities and service provider's skill was done. At the same time service provider's attitude and knowledge on CAC service and other abortion services were also assessed through semi structured interviews. Quality of record keeping and the feasibility of initiating the medical abortion service in these sites were also studied.

RESULT:
Number of listed centers in six pilot districts was twenty nine. Study districts have 16 listed centers. Visited sites were twelve; four managed by Government and eight by non government organizations. Thirty three thousand nine hundred and twenty women have availed this service so far: only 4.76% of them received service from Government facilities. Marie Stopes International (MSI) topped the list in providing service to the maximum number of clients (75.64%) and Family planning association of Nepal (FPAN) was the second. MSI centre was also first to initiate the service. Government facilities provide 24 hours service unlike private facilities, which are open only up to 5:00 pm., Cost for the service varies from rupees 900/- to rupees 1365/- and is cheaper at Government facilities. Private sectors have separate setups and Government have allocated some space within their already existing infrastructure for CAC service. Private sectors were better in providing the information to public about the availability of service. There were total 20 trained service providers for first trimester abortion service. They are more at Government facilities. They seem to be positive to CAC service and had good knowledge and skill of service delivery. Complications were not recorded at most of the sites. Pain management and infection prevention practice needs improvement at the Government sites. All the sites had identified their referral sites and had one or the other arrangement for referral.

CONCLUSION:
CAC service has become accessible and affordable to Nepalese women even at peripheral level. CAC sites are functioning well. Initiation of medical abortion and second trimester abortion services at these sites are feasible and would expand the option and choices available.

PMID: 19483450

Government services are 24 hours where private close at 5 pm, cost is cheaper at government facility

Private sector better at getting info to public about availability of service

At these 12 places, 20 total providers, mostly in the government facility

Government facility needs improvement in pain management and infection prevention

Few complications at either government or NGO/private service

Q: what is pt satisfaction with new second-trimester abortion services in NP

Sample: clients (no details in abstract)

Date: before 2010

Findings:
Satisfaction: high for characteristics associated with counseling and the caring attitude of the physician.

Dissatisfaction: some aspects of the delivery of care, especially the lack of
Ensuring patient satisfaction with second-trimester abortion in resource-poor settings.

Regmi K¹, Madison J.

Abstract

OBJECTIVE:
To evaluate patient satisfaction with the new second-trimester abortion services in Nepal.

METHOD:
Depending on the patient's literacy level, a questionnaire was read and filled out by the patient herself or by an interviewer. Indicators were developed and assessed to determine the patient's experience of the services, focusing on her physical, emotional, and social comfort.

RESULTS:
Satisfaction was found to be high for characteristics associated with counseling and the caring attitude of the physician. However, dissatisfaction was expressed regarding some aspects of the delivery of care, especially the lack of privacy and confidentiality and the absence of a support person from the patient's own family.

CONCLUSION:
The patients described privacy, confidentiality, and a support person designated by them as factors that would greatly contribute to their satisfaction with the services. Maximizing patient satisfaction is necessary for the program's success but will be challenging.

PMID: 19744657
[PubMed - indexed for MEDLINE]
BACKGROUND:
Although Nepal's maternal mortality ratio has fallen over the past decade, unsafe abortion remains a leading cause of maternal morbidity and mortality. A key strategy for improving access to safe abortion services is to train mid-level providers such as nurses in comprehensive abortion care (CAC). The Family Health Division of the Nepal Ministry of Health trained an initial cohort of 96 nurses to provide first trimester CAC services using manual vacuum aspiration (MVA) between September 2006 and July 2009. This study evaluates the acceptability and quality of CAC services provided by trained nurses in Nepal.

METHODS:
Five assessments were used to evaluate post-training service provision on CAC: facility logbooks registry, nurse provider interviews, facility assessments, facility manager interviews and procedure observation checklists. Ninety-two nurses from 50 facilities participated in the evaluation. Descriptive statistics are reported.

RESULTS:
Overall, 5,600 women received CAC services from 42 facilities where nurses were providing services between June 2009 and April 2010. Complications were experienced by 68 surgical abortion clients (1.6%) and 12 medical abortion clients (1.2%). All nurses reported that clients were happy to receive care from them, and 67% of facility managers reported that clients preferred nurse providers to physicians or had no preference. Facility managers and nurses reported a need for additional support, including further training and improved drug and equipment supply.

CONCLUSIONS:
Trained nurses provide high quality CAC services in Nepal. Additional support in the form of facilitative supervision and training should be considered to strengthen CAC service provision.

PMID: 22929628
[PubMed - indexed for MEDLINE]

Women having abortion in urban Nepal: 2005 and 2010 compared.
Thapa S, Neupana S, Basnett I, Ramnarayan K, Read E.
Author information
Abstract

Q: Has profile changed from 2005 to 2010 of the clients, reasons for abortion, and contraceptive use have changed
Sample: 672 women in 2005 and 392 in 2010 who obtained first trimester surgical abortion in large public sector clinic
Date: 2005-2010
Findings:
Increasing # of clients over the 5 year period
Socio-demographic profile of abortion clients same over years: average age 27 with 2 living children, mostly married, with majority not wanting more children

Half used contraceptive method in the month of contraception – mostly condoms, withdrawal, the pill, the rhythm

Reasons for not using contraception: health concern, dislike of avail. Methods, perceived low risk of pregnancy
The use of abortion services at the Maternity Hospital clinic, the largest public sector abortion clinic in Nepal, has risen over the years. Whether the profile of the clients, reasons for abortion, and contraceptive use have changed are not known and need to be investigated.

**OBJECTIVES:**
This paper evaluates changes between 2005 and 2010 in the socio-demographic profile of abortion users, reasons for seeking abortion, and contraceptive use of two cohorts of women who had first-trimester abortion at the Maternity Hospital.

**METHODS:**
We used data from two similar surveys conducted in 2005 and 2010 among 672 and 392 women, respectively, who obtained first-trimester surgical abortion in a large public sector clinic. We analyzed trend data in service utilization and carried out a cost analysis.

**RESULTS:**
The number of women having abortions has steadily increased over the years, and cumulatively about 19,800 women have received services. The profile of the clients at this clinic remained essentially the same between 2005 and 2010. The typical users of abortion services at the clinic has were 27 years old with two living children, mostly married, with the majority not wanting to have more children. About half of them used a contraceptive method-mostly condoms, withdrawal, the pill and rhythm-in the month of unintended pregnancy, suggesting failures with these methods. Health concerns, dislike of available methods, and perceived low risk of pregnancy were common reasons for not using a contraceptive method.

**CONCLUSION:**
Despite increases in the number of clients, the socio-demographic profile of the abortion clients has remained similar over the years. The linkage between the abortion and family planning clinics needs to be strengthened.

PMID: 23434954
[PubMed - indexed for MEDLINE]


Safety and effectiveness of termination services performed by doctors versus midlevel providers: a systematic review and analysis.

Ngo TD¹, Park MH, Free C.

Author information
Abstract
**OBJECTIVE:**
Training midlevel providers (MLPs) to conduct surgical abortions and manage medical abortions has been proposed as a way to increase women's access to safe abortion. This paper reviews the evidence that compares the effectiveness and safety of abortion procedures administered by MLPs versus doctors.

**METHODS:**
A systematic search was conducted of published trials and comparison studies assessing the effectiveness and/or safety of abortion provided by MLPs compared to doctors. The Cochrane Central Register of Controlled Trials, EMBASE, MEDLINE, and Popline were searched. The primary outcomes of interest were: (1) incomplete or failed abortion; and (2) measures of safety (adverse events and complications) of abortion procedures administered by MLPs and doctors. Odds ratios (ORs) and their 95% confidence intervals (CIs) were calculated for each study. Data were synthesized in a narrative fashion.

**FINDINGS:**
Five studies were included in this review (n = 8539 women), comprising two randomized controlled trials (RCTs) (n = 3821) and three prospective cohort studies (n = 4718). In total, 4198 women underwent a procedure administered by an MLP, and 4341 women underwent a physician-administered procedure. Studies took place in the US, Nepal, South Africa, Vietnam, and India. Four studies used surgical abortion with maximum gestational ages ranging from 10 to 16+ weeks, while a medical abortion study had gestational ages up to 9 weeks. In RCTs, the effect estimates for incomplete or failed abortion for procedures performed by MLPs compared with doctors were OR = 2.00 (95% CI 0.85-4.68) for surgical abortion, and OR = 0.69 (95% CI 0.34-1.37) for medical abortion. Complications were rare among both provider types (1.2%-3.1%; OR = 1.80, 95% CI 0.83-3.90 for surgical abortions), and no deaths were reported.

**CONCLUSION:**
There were no statistical differences in incomplete abortion and complications for first trimester surgical and medical abortion up to 9 weeks performed by MLPs compared with physicians. Further studies are required to establish more precise effect estimates.

**KEYWORDS:**
abortion; manual vacuum aspiration; medical abortion; misoprostol

PMID: 23323024
[PubMed]

PMCID:
**Abstract**

**OBJECTIVES:**
In Nepal, the change of the abortion law in 2002 extended the staff duties at family planning clinics to include performing induced abortions. This study investigated the experiences, opinions and attitudes of the staff about their work at safe abortion service centres in the Kathmandu Valley and identified areas in which the health care staff stated the need for improvement.

**STUDY DESIGN:**
Fifteen qualitative semi-structured interviews were conducted with doctors and nurses working with induced abortion at one hospital and five clinics in the Kathmandu Valley. The interviews were transcribed verbatim and analysed using the constant comparative method.

**RESULTS:**
The core category 'Proud, not yet satisfied' comprised a strong perception of providing an important service that is beneficial for women's health and a feeling of pride in providing quality service. Four related categories were identified: 'Beneficial legal framework', 'A will to reach out to all women', 'Frustration about misuse' and 'Dilemma of sex-selective abortion'. The respondents emphasised that improvements are necessary to (1) ensure that all women have access to safe abortion services; (2) prevent abortions from being used instead of contraceptives; (3) stop illegal medical abortions; and (4) deal with the dilemma of sex-selective abortions.

**CONCLUSIONS:**
Respondents were proud of and had positive experiences from their work. They stated they have the opportunity to secure women's rights and health; however, changes are needed to bring the quality of abortion care to a satisfactory level.

Q: What are risk factors for repeat abortion?

**Sample:** 1172 women who had surgical abortions in 2 clinics in KTM

**Date:** Dec 2009 to March 2010

**Findings:** 32.3% had repeat abortions

Incidence of this rose with age and parity, higher among those with no intention of future children, those attaining primary or secondary education and those attending an NGO sector clinic

Why not using BC: ill health, non-compliance, dislike

Women with repeat abortion showed a pattern of contraceptive acceptance immediately after the procedure similar to that of women who had 1 abortion

Q: Did legalization decrease maternal mortality/morbidity?
Risk factors for repeat abortion in Nepal.

Thapa S¹, Neupane S.

Abstract

OBJECTIVE: To examine the incidence of and risk factors for repeat abortion in Nepal.

METHODS: Data were analyzed from a survey of 1172 women who had surgical abortions between December 2009 and March 2010 in 2 clinics in Kathmandu, Nepal. Bivariate and multivariate logistic regressions were performed to estimate odds ratios for the risk factors.

RESULTS: Among the respondents, 32.3% (95% confidence interval, 29.6-34.9) had repeat abortions. This incidence rose sharply with age and parity, and was higher among those with no intention of having a future child, those attaining primary or secondary level education, and those attending the non-governmental sector clinic. Women with repeat abortion were similar to those with 1 abortion in terms of contraceptive practice. Among women not using contraceptives at the time of the unintended pregnancy, the 3 most commonly cited reasons were ill health, non-compliance with the method intended for use, and dislike of the method. Women with repeat abortion showed a pattern of contraceptive acceptance immediately after the procedure similar to that of women who had 1 abortion.

CONCLUSION: Repeat abortion is emerging as a major public health issue in Nepal, with implications for counseling and provision of abortion, and for family planning services.

Sample: 23,493 cases of abortion complications
Date: 2001-2010
Findings: significant decline in the rate of serious abortion morbidity

steepest decline was observed after expansion of the safe abortion program to include midlevel providers, second trimester training, and medication abortion
BACKGROUND:
Abortion was legalized in Nepal in 2002, following advocacy efforts highlighting high maternal mortality from unsafe abortion. We sought to assess whether legalization led to reductions in the most serious maternal health consequences of unsafe abortion.

METHODS:
We conducted retrospective medical chart review of all gynecological cases presenting at four large public referral hospitals in Nepal. For the years 2001-2010, all cases of spontaneous and induced abortion complications were identified, abstracted, and coded to classify cases of serious infection, injury, and systemic complications. We used segmented Poisson and ordinary logistic regression to test for trend and risks of serious complications for three time periods: before implementation (2001-2003), early implementation (2004-2006), and later implementation (2007-2010).

RESULTS:
23,493 cases of abortion complications were identified. A significant downward trend in the proportion of serious infection, injury, and systemic complications was observed for the later implementation period, along with a decline in the risk of serious complications (OR 0.7, 95% CI 0.64, 0.85). Reductions in sepsis occurred sooner, during early implementation (OR 0.6, 95% CI 0.47, 0.75).

CONCLUSION:
Over the study period, health care use and the population of reproductive aged women increased. Total fertility also declined by nearly half, despite relatively low contraceptive prevalence. Greater numbers of women likely obtained abortions and sought hospital care for complications following legalization, yet we observed a significant decline in the rate of serious abortion morbidity. The liberalization of abortion policy in Nepal has benefited women's health, and likely contributes to falling maternal mortality in the country. The steepest decline was observed after expansion of the safe abortion program to include midlevel providers, second trimester training, and medication abortion, highlighting the importance of concerted efforts to improve access. Other countries contemplating changes to abortion policy can draw on the evidence and implementation strategies observed in Nepal.

PMID: 23741391
[PubMed - indexed for MEDLINE]

PMCID:
Unsafe abortion after legalisation in Nepal: a cross-sectional study of women presenting to hospitals.

Rocca CH1, Puri M, Dulal B, Bajracharya L, Harper CC, Blum M, Henderson JT.

Abstract

OBJECTIVE:
To investigate abortion practices of Nepali women requiring post abortion care.

DESIGN:
Cross-sectional study.

SETTING:
Four tertiary-care hospitals in urban and rural Nepal.

SAMPLE:
A total of 527 women presenting with complications from induced abortion in 2010.

METHODS:
Women completed questionnaires on their awareness of the legal status of abortion and their abortion-seeking experiences. The method of induction and whether the abortion was obtained from an uncertified source was documented. Multivariable logistic regression was used to identify associated factors.

MAIN OUTCOME MEASURES:
Induction method; uncertified abortion source.

RESULTS:
In all, 234 (44%) women were aware that abortion was legal in Nepal. Medically induced abortion was used by 359 (68%) women and, of these, 343 (89%) took unsafe, ineffective or unknown substances. Compared with women undergoing surgical abortion, women who had medical abortion were more likely to have obtained information from pharmacists (161/359, 45% versus 11/168, 7%, adjusted odds ratio [aOR] 8.1, 95% confidence interval 4.1-16.0) and to have informed no one about the abortion (28/359, 8% versus 3/168, 2%, aOR 5.5, 95% CI 1.1-26.9). Overall, 291 (81%) medical abortions and 50 (30%) surgical abortions were obtained from uncertified sources; these women were less likely to know that abortion was legal (122/341, 36% versus 112/186, 60%, aOR 0.4, 95% CI 0.2-0.7) and more likely to choose a method because it was available nearby (209/341, 61% versus 62/186, 33%, aOR 2.5, 95% CI 1.5-4.3), compared with women accessing certified sources.

Q: analyze cases of complication post-abortion at TUTH
Sample: 57 complicated cases
Date: Aug 2011 to Nov 2012
Findings: of women presenting for post-abortion complication
66% were 20-29 years old
79% had abortion up to 9 weeks
45% found out about MA at medical shop
31% with incomplete abortion
31% need admission
CONCLUSIONS:
Among women presenting to hospitals in Nepal with complications following induced abortion of pregnancy, the majority had undergone medically induced abortions using unknown substances acquired from uncertified sources. Women using medications and those accessing uncertified providers were less aware that abortion is now legal in Nepal. These findings highlight the need for continued improvements in the provision and awareness of abortion services in Nepal.

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KEYWORDS:
Abortion; Nepal; medical abortion; termination of pregnancy; unsafe abortion

Comment in
- Commentary on 'Unsafe abortion after legalization in Nepal: a cross-sectional study of women presenting to hospitals'. [BJOG. 2013]

PMID:
23574112
[PubMed - indexed for MEDLINE]

Situation Analysis of Patients Attending TU Teaching Hospital after Medical Abortion with Problems and Complications.
Ojha N, Bista KD.

Abstract
Introduction: In Nepal medical abortion has been approved for use since 2009. There were many cases coming to Tribhuvan University Teaching Hospital coming with problems and complications following medical abortion. Thus the objective of this study was to analyze the cases that came to TUTH following medical abortion with problems and complications. Methods: This is a prospective study conducted in the Department of Obstetrics and Gynecology of TUTH. Study was carried from 1st August 2011 to 30th November 2012. Women who came to TUTH with any complaints following medical abortion were interviewed, examined and treatment provided. Relevant clinical finding were noted. Results: There were a total of 57 cases during the study. Most (66.6%) of the women were in age group 20-29 years age. There were 45 (79%) women who had abortion up to 9 weeks. Medical shop was the main place where most of the women (45.6%) directly come to know about medical abortion.

Q: prevalence and pattern of abortion among women who use CAC service at tertiary hospital
Sample: 4830 pts w/ induced abortion
Date: Jan 2011 to Dec 2012
Findings: Abortion contributed to about 1.68% of the total patient served in the hospital that provides both obstetrical and gynecological services
92.3% those receiving abortion were from the Kathmandu
Socio-demographic profile of abortion clients remained same over years
More than 34 (77.2%) received the service from medical shops without any supervision. Most 31 (54.4%) presented with incomplete abortion. There were three cases of continuing pregnancy and four presented with ectopic pregnancy. Eighteen (31.6%) cases needed admission. Fifty six percent of the cases were treated with manual vacuum aspiration, six cases underwent laparotomy and there was one maternal mortality. Conclusions: There is a need for proper dissemination and implementation of guideline for management of these women and adequate supervision to reduce the problems and complications. Keywords: complications; incomplete abortion; medical abortion; problems.

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Abstract
Introduction: Complications from unsafe abortion are believed to account for the largest proportion of hospital admissions for gynaecological services in developing countries and not to mention the cost it imparts to the health system of a country. Therefore, it is equally important to find out the prevalence and the pattern of abortion among the women who utilize the safe abortion care services and provide a framework to target various health promotion programs including safe-motherhood and reproductive health; such that the future interventions to avoid the unintended pregnancy and unsafe abortion can be implemented accordingly. Methods: A cross-sectional study was conducted in a tertiary care hospital in Kathmandu, Nepal. Social and demographic information of all the women seeking induced abortions from January 2011 to December 2012 were included and the result was analyzed. Result: Abortion contributed to about 1.68% of the total patient served in the hospital that provides both obstetrical and gynecological services. Of the total 4830 patients who underwent induced abortion in this period, the mean age was 27, 92.3% were from the Kathmandu valley and more than one-third women (35.2%) were illiterate who couldn't read and write. Majorities were more than two parity and belonged to higher caste. Conclusion: The socio-demographic profile of the abortion clients in Nepal has remained similar over

Q: what is contraception info received and methods chosen, received and used among women having abortion in 2011

| Sample: 838 women at 4 facilities |
| Date: 2011 |
| Findings: 1/3 of post-abortion pts received no info on effective BC and 56% left clinic w/o a method |

Most choose injection and pills and are likely to initiate

Those that choose long acting reversible (IUD) and sterilization have less follow through

Q: compare abortion clients of NGO and Public sector abortion clinic

| Sample: 1172 women in two popular clinics, one private one public |
| Date: 2010 |
| Findings: |

Pattern of Abortion Care in a Tertiary Level Maternity Hospital in Nepal.

Paudel P¹, Paudel L², Bhochhibhoya M³, Vaidhya SA¹, Shah N⁴, Khatiwada D⁵.

the years. We need to address the accessibility and availability to the safe abortion care services along with other safe motherhood programs guaranteeing access to safe abortion and post-abortion care to all group of women and also, women education regarding contraception to avoid repeated abortions or unwanted pregnancy in the future. Keywords: abortion; pattern; socio-demographic.

PMID: 24907945
[PubMed - as supplied by publisher]


Post abortion contraception a decade after legalization of abortion in Nepal.
Rocca CH, Puri M, Harper CC, Blum M, Dulal B, Henderson JT.

Author information
Abstract

OBJECTIVE:
To assess the contraceptive information received and methods chosen, received, and used among women having abortions one decade after legalization of abortion in Nepal.

METHODS:
We examined post abortion contraception with questionnaires at baseline and six months among women obtaining legal abortions (n=838) at four facilities in 2011. Multivariate regression analysis was used to measure factors associated with method information, choice, receipt, and use.

RESULTS:
One-third of participants received no information on effective methods, and 56% left facilities without a method. The majority of women who chose to use injectables and pills were able to do so (88% and 75%, respectively). However, only 44% of women choosing long-acting reversible contraceptives and 5% choosing sterilization had initiated use of the method by six months. Levels of contraceptive use after medical abortion were on par with those after aspiration abortion. Nulliparous women were far less likely than parous women to receive information and use methods. Women living without husbands or partners were also less likely to receive information and supplies, or to use methods.

CONCLUSION:
Improvements in post abortion counseling and provision are needed. Ensuring that women choosing long-acting and permanent contraceptive methods are able to obtain either them or interim methods is essential.
Abortion clients of a public-sector clinic and a non-governmental organization clinic in Nepal.

Thapa S¹, Neupane S.

Author information

Abstract

This paper investigates similarities and differences between abortion clients of a public-sector clinic and a non-governmental organization (NGO) clinic in Nepal. In 2010, a survey of 1,172 women was conducted in two highly-attended abortion clinics in Kathmandu—one public-sector clinic and another operated by an NGO. Data on the sociodemographic characteristics of clients, their fertility preferences, and use of contraceptives were analyzed. Similarities and differences between the two groups of clients were examined by either chi-square or t-test. The clients of the two clinics were similar with respect to age (27.3±5.7 years), education (26.5% had no education), and number of living children (1.88±1.08). They differed with regard to contraceptive practice, the circumstances resulting in unintended pregnancy, and future fertility preferences. Just over 50% clients of the public and 35% clients of the NGO clinic reported use of contraceptives surrounding the time of unintended pregnancy. The groups also differed in the contraceptive methods used and in reasons for not using any method. The NGO clinic contributed principally to expanding the availability of and access to abortion services.

PMID:
24288952
[PubMed - indexed for MEDLINE]

PMCID:
PMC3805888
Unsafe abortion: a tragic saga of maternal suffering.
Regmi MC1, Rijal P, Subedi SS, Uprety D, Budathoki B, Agrawal A.

Author information

Abstract

INTRODUCTION:
Unsafe abortion is a significant cause of maternal morbidity and mortality in developing countries despite provision of adequate care and legalization of abortion. The aim of this study was to find out the contribution of unsafe abortion in maternal mortality and its other consequences.

METHODS:
A retrospective study was carried out in the Department of Obstetrics and Gynecology in BPKIHS between 2005 April to 2008 September analyzing all the unsafe abortion related admissions.

RESULTS:
There were 70 unsafe abortion patients. Majority of them (52.8%) were of high grade. Most of them recovered but there were total 8 maternal deaths.

CONCLUSIONS:
Unsafe abortion is still a significant medical and social problem even in post legalization era of this country.

PMID:
21180215
[PubMed – indexed for MEDLINE]


Septic induced abortion claiming life of a Nepalese woman.
Sharma SP1, Sharma J, Pokharel SM.

Author information

Abstract

This is a case report of septic induced abortion done at 16 weeks of gestation outside Kathmandu valley who presented to the emergency department of Tribhuvan University Teaching Hospital (TUTH) with peritonitis and septic shock. The case underwent emergency laparotomy and was treated surgically for perforated ileum and uterus by resection and end to end anastomosis of bowel and subtotal hysterectomy. The patient died after 16 hours of operation due to multiple organ failure (MOF) as a sequelae of septic shock. Unsafe abortion remains one of the major causes of maternal mortality in Nepal. Increasing public awareness about hazards of septic abortion and the provisions of
law and decentralizing the trained manpower throughout the country would play a pivotal role in decreasing the incidence of septic induced abortion.

PMID: 16751819
[PubMed – indexed for MEDLINE]

How did Nepal reduce the maternal mortality? A result from analyzing the determinants of maternal mortality.
Karkee R.

Author information
Abstract
Nepal reportedly reduced the maternal mortality ratio by 48% within one decade between 1996-2005 and received the Millennium development goal award for this. However, there is debate regarding the accuracy of this figure. On the basis of framework of determinants of maternal mortality proposed by McCarthy and Maine in 1992 and successive data from Nepal demographic health survey of 1996, 2001 and 2006, a literature analysis was done to identify the important factors behind this decline. Although facility delivery and skilled birth attendants are acclaimed as best strategy of reducing maternal mortality, a proportionate increase in these factors was not found to account the maternal mortality rate reduction in Nepal. Alternatively, intermediate factors particularly women awareness, family planning and safe abortion might have played a significant role. Hence, Nepal as well as similar other developing countries should pay equal attention to such intermediate factors while concentrating on biomedical care strategy.

PMID: 23478738
[PubMed – indexed for MEDLINE]

Sex Selective Abortion

Falling sex ratios and emerging evidence of sex-selective abortion in Nepal: evidence from nationally representative survey data.
Frost MD¹, Puri M, Hinde PR.

Author information

Q: how did Nepal reduce maternal mortality by 48% within 1996-2005
Sample: DHS
Date. 96-05
Findings: Safe abortion contributed to reduction in maternal mortality

Sample: DHS 1996 through 2011
Date: ^
Findings: From 2007 to 2010, the CSR for second-
**Abstract**

**OBJECTIVES:**
To quantify trends in changing sex ratios of births before and after the legalisation of abortion in Nepal. While sex-selective abortion is common in some Asian countries, it is not clear whether the legal status of abortion is associated with the prevalence of sex-selection when sex-selection is illegal. In this context, Nepal provides an interesting case study. Abortion was legalised in 2002 and prior to that, there was no evidence of sex-selective abortion. Changes in the sex ratio at birth since legalisation would suggest an association with legalisation, even though sex-selection is expressly prohibited.

**DESIGN:**

**SETTING:**
Nepal.

**PARTICIPANTS:**
31 842 women aged 15-49.

**MAIN OUTCOME MEASURE:**
Conditional sex ratios (CSRs) were calculated, specifically the CSR for second-born children where the first-born was female. This CSR is where the evidence of sex-selective abortion will be most visible. CSRs were looked at over time to assess the impact of legalisation as well as for population sub-groups in order to identify characteristics of women using sex-selection.

**RESULTS:**
From 2007 to 2010, the CSR for second-order births where the first-born was a girl was found to be 742 girls per 1000 boys (95% CI 599 to 913). Prior to legalisation of abortion (1998-2000), the same CSR was 1021 (906-1150). After legalisation, it dropped most among educated and richer women, especially in urban areas. Just 325 girls were born for every 1000 boys among the richest urban women.

**CONCLUSIONS:**
The fall in CSRs witnessed post-legalisation indicates that sex-selective abortion is becoming more common. This change is very likely driven by both supply and demand factors. Falling fertility has intensified the need to bear a son sooner, while legal abortion services have reduced the costs and risks associated with obtaining an abortion.

**KEYWORDS:**
Public Health

PMID: 23674444
[PubMed]
'And they kill me, only because I am a girl'...a review of sex-selective abortions in South Asia.

Abrejo FG¹, Shaikh BT, Rizvi N.

Abstract
The low social status of women and the preference for sons determine a high rate of sex-selective abortion or, more specifically, female feticide, in South Asian countries. Although each of them, irrespective of its abortion policy, strictly condemns sex-selective abortion, data suggest high rates of such procedures in India, Nepal, China and Bangladesh. This paper reviews the current situation of sex-selective abortion, the laws related to it and the factors contributing to its occurrence within these countries. Based on this review, it is concluded that sex selective abortion is a public health issue as it contributes to high maternal mortality. Abortion policies of South Asian countries vary greatly and this influences the frequency of reporting of cases. Several socio-economic factors are responsible for sex-selective abortion including gender discriminating cultural practices, irrational national population policies and unethical use of technology. Wide social change promoting women's status in society should be instituted whereby women are offered more opportunities for better health, education and economic participation through gender sensitive policies and programmes. A self-regulation of the practices in the medical profession and among communities must be achieved through behavioral change campaigns.


Sex-selective abortion in Nepal: a qualitative study of health workers' perspectives.

Lamichhane P¹, Harken T, Puri M, Darney PD, Blum M, Harper CC, Henderson JT.

Abstract

Q: What is responsible for sex selective abortion?

Sample: South Asia large scale data
Date: -
Findings: Several socio-economic factors are responsible for sex-selective abortion including gender discriminating cultural practices, irrational national population policies and unethical use of technology.

Q: what are health workers perspectives on sex selective abortion?
Sample: 35 interviews with providers
2 hospitals in KTM, 2 rural
Date: around 2011

Findings: Most providers were aware of the ban on sex-selective abortion and, despite overall positive views of abortion legalization, saw sex
**BACKGROUND:**
Sex-selective abortion is expressly prohibited in Nepal, but limited evidence suggests that it occurs nevertheless. Providers' perspectives on sex-selective abortion were examined as part of a larger study on legal abortion in the public sector in Nepal.

**METHODS:**
In-depth interviews were conducted with health care providers and administrators providing abortion services at four major hospitals (n = 35), two in the Kathmandu Valley and two in outlying rural areas. A grounded theory approach was used to code interview transcripts and to identify themes in the data.

**RESULTS:**
Most providers were aware of the ban on sex-selective abortion and, despite overall positive views of abortion legalization, saw sex selection as an increasing problem. Greater availability of abortion and ultrasonography, along with the high value placed on sons, were seen as contributing factors. Providers wanted to perform abortions for legal indications, but described challenges identifying sex-selection cases. Providers also believed that illegal sex-selective procedures contribute to serious abortion complications.

**CONCLUSION:**
Sex-selective abortion complicates the provision of legal abortion services. In addition to the difficulty of determining which patients are seeking abortion for sex selection, health workers are aware of the pressures women face to bear sons and know they may seek unsafe services elsewhere when unable to obtain abortions in public hospitals. Legislative, advocacy, and social efforts aimed at promoting gender equality and women's human rights are needed to reduce the cultural and economic pressures for sex-selective abortion, because providers alone cannot prevent the practice.

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PMID: 21530837
[PubMed - indexed for MEDLINE]


Sex preferences among mothers delivering at Patan Hospital. Chhetri UD, Ansari I, Bandary S, Adhikari N.

Author information
Abstract

**BACKGROUND:**
High sex ratios at birth (SRB) are seen in China, Taiwan, South Korea, parts of India and Vietnam. The imbalance is the result of sex selection as an increasing problem. Greater availability of abortion and ultrasonography, along with the high value placed on sons, were seen as contributing factors. Providers wanted to perform abortions for legal indications, but described challenges identifying sex-selection cases. Providers also believed that illegal sex-selective procedures contribute to serious abortion complications.

**Q:** What are sex preferences between mothers delivering at Patan hospital?

**Sample:** 560 women with total 965 live births

**Findings:**
Preferences for male: 10%
Female: 15.4 %
Either: 74%

Reason for male preference was to continue family lineage, to bring honor, old age
son preference, accentuated by declining fertility. Prenatal sex determination and female feticides are common in many countries. It is reflected in sex ratio

**OBJECTIVE:**
To determine reasons for the preferences for different sex; to find out whether there is altered sex ratio at birth and to find out whether female feticide are common among women who had abortion.

**METHOD:**
It is a prospective study. Women who had previous history of abortion and had delivered at Patan Hospital in the year 2066 were interviewed as per questionnaires.

**RESULTS:**
Among 560 women with total live births of 965, (462 male and 503 female) during their life time the overall sex ratio was 92 male per 100 female birth; total abortions were 663. Preferences for male were 10%, female 15.4% and either was for 74%. The reason for male preference was to continue family lineage, to bring honor, old age security, and performing funeral rites while the reasons for daughter preferences were that they understand mothers pain, help in household work. The sex ratio of the babies born during the study period was 113 male per 100 female births. The Sex ratio at birth from 1st to 6th deliveries was 61, 79, 101, 210, 286 and 1100 male per 100 female birth respectively. Prenatal sex selection was 8% (by USG) but none had sex selected abortion.

**CONCLUSION:**
Sex ratio of those delivered during the study period was skewed (136 boys per 100 girls) towards male. There was shift in SRB in 4th and subsequent pregnancies in favor of boys. As the male sex ratio increased the number of induced abortion decreased in subsequent pregnancies.

PMID: 22710528
[PubMed - indexed for MEDLINE]

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**Methods**

**Patients choice for method of early abortion among comprehensive abortion care (CAC) clients at Kathmandu Medical College Teaching Hospital (KMCTH).**
**Saha R, Shrestha NS, Koirala B, Kandel P, Shrestha S.**
**Author information**

Q: What do patients choose for method of early abortion?
S: 100 patients
Date: Jan to June 2006
Findings:
Reason for termination: 60% no desire for
Abstract

OBJECTIVE:
The overall objective of the study was to determine different methods of abortion opted by CAC clients at KMCTH. The specific objective of the study was to know the reasons for pregnancy termination and to know the reasons opted for either medical or surgical method of abortion.

METHODOLOGY:
A hospital based prospective study was carried out for a period of six months at KMCTH from 1st January 2006 to 31st June 2006. All the patient undergoing CAC services were included for the study. Clients were provided with written and verbal information regarding the methods of terminating early abortion and its associated complications. After that they were asked to give their informed choice and decision. All the pertinent information was entered on pre-structured questionnaire.

RESULTS:
During the study period a total of 100 patients underwent CAC services. The commonest reason for termination pregnancy was no desire for additional children (60%) followed by youngest child too small or short spacing (21%). 74% of the patients opted for surgical abortion, 23% patient opted for medical abortion and 3% of the patient remain undecided. Reasons for favouring surgical method of abortion was that surgical abortion is complete (35), repeated visits are avoided (18), quick (10) would be with service provider and feel safe (5), lack of expectancy (2) side effect of medical treatment (1), twin pregnancy (1), easy (1), fear of pain (1). Medical method of abortion was favoured due to fear of surgery (9), easy and less painful (8) and maintains privacy (6).

CONCLUSION:
Factors affecting the choice of abortion method appear to be numerous and complex. Providers need to be sensitive to differences in women's values and life circumstances when counseling them about an abortion method. In particular, providers should incorporate into their counseling sessions what women need to know about the characteristics of abortion methods and help women to identify what is the best option for them. Key words: Early abortion medical methods, surgical methods, choice.

PMID: 18604048
[PubMed - indexed for MEDLINE]

Prospective study of medical abortion in Nepal Medical College Teaching Hospital (NMCTH). A one year experience.
A combination of antiprogesterone mifepristone and prostaglandin analogue misoprostol provides an effective non surgical method for termination of pregnancy up to gestational age of 63 days. The objective of this study was to assess the efficacy of this medical regimen for termination of pregnancy up to 63 days of pregnancy. A hospital based prospective study was carried out in department of obstetrics and gynecology at Nepal Medical College Teaching Hospital (NMCTH) for a period of one year where 100 women requesting for medical abortion were enrolled. The medical regimen used was mifepristone 200 mg orally followed 24 hours later by misoprostol 800 micrograms administered buccally. Most of the women were in age group 20-29 years (50%), were nulliparous (81%) and were within 42 days of pregnancy (47%). The overall success rate of this regimen was 93.6%. Where success was defined as achieving complete abortion without needing surgical evacuation. Surgical evacuation was needed in 6 (6.4%) patients i.e. 5 for incomplete abortion and one for continued viable pregnancy. The combination of oral mifepristone 200mg followed 24 hours later by buccal misoprostol 800mcg is effective method of medical termination of pregnancy.

PMID: 22808819
[PubMed - indexed for MEDLINE]

Mifepristone plus vaginal misoprostol vs vaginal misoprostol alone for medical abortion in gestation 63 days or less in Nepalese women: a quasi-randomized controlled trial.
Chawdhary R¹, Rana A, Pradhan N.

AIM:
To compare the efficacy of mifepristone and vaginal misoprostol with misoprostol alone for pregnancy termination up to 63 days.

METHOD:
This exploratory study was conducted in the Department of Obstetrics and Gynecology, Tribhuvan University Teaching Hospital, Kathmandu, Nepal as a part of a thesis study for a period of one year from April 2005-2006. After confirming a pregnancy ≤63 days gestation by transvaginal ultrasound, an equal number of women (50) were randomized into (i) group A,
women who received 200 mg oral mifepristone (RU 486) on day 1 and vaginal misoprostol 800 microg on day 3; and (ii) group B, women who received vaginal misoprostol (800 microg) on day 1 and 3 (total dose 1600 microg). The primary study outcome measure was complete abortion without surgical intervention making comparisons between these two groups in terms of complete abortion rate, need for manual vacuum aspiration for incomplete abortion and pregnancy continuation after reconfirming the diagnosis on transvaginal ultrasound, besides comparing the side effects/complications.

**RESULTS:**
Fewer side effects and a more complete abortion rate (94%) was observed in group A (mifepristone and vaginal misoprostol) in comparison to vaginal misoprostol alone (total dose 1600 microg) giving a complete abortion rate of 86% along with a significant hematocrit drop on follow-up day 10 (P = 0.03) besides having increased duration of bleeding (P = 0.017).

**CONCLUSION:**
Mifepristone oral (200 mg) followed by vaginal misoprostol (800 microg) on day 3 provides a better success rate (94%) with fewer complications than vaginal misoprostol 800 microg used on days 1 and 3 for medical abortion of pregnancies up to 63 days.

PMID: 19215552
[PubMed - indexed for MEDLINE]

*Early pregnancy termination with a simplified mifepristone: Medical abortion outpatient regimen.*
Chuni N1, Chandrashekhar TS.

**Authors information**

**Abstract**

**BACKGROUND:**
An estimated 30 million abortions are performed worldwide every year. Many women do not have access to abortion and die of complications after illegal abortions. Medical abortion could provide greater access to safe abortion services; availability of the procedure is, therefore, of global public health importance.

**AIM:**
The aim was to study the efficacy of lowered dose of Mifepristone in medical abortion.

**MATERIALS AND METHODS:**
One hundred and twelve cases with a pregnancy of 63 days duration or less were enrolled in a prospective study using a lowered dose of 200mg Mifepristone followed, 48 hours later, by home administration of 400microg Misoprostol orally. At the
second visit, on day 15, outcome and adverse effects were analysed. Women who failed to undergo a complete abortion were further managed by surgical evacuation of uterus.

**RESULTS:**
The mean gestational age was 50.6 days. The rates of complete abortion were 92.8%, 83 % and 80 % in the <or=49 days group, 50 to 56 days and 57 to 63 days group respectively. Vaginal bleeding emerged as the biggest reason for medically indicated termination. Nulliparous women had a greater frequency of side effects, though values did not reach statistical significance.

**CONCLUSION:**
This regimen of a lower dose of 200mg Mifepristone, followed by home administration of 400microg oral Misoprostol 48 hours later is safe and highly effective especially in pregnancies of up to 49 days duration.

PMID:

20071864
[PubMed - indexed for MEDLINE]

**Making unsafe abortion safe: medical method.**
Pradhan P.

**Author Information**

**Abstract**
WHO reported 13.0% of maternal deaths are related to unsafe abortion in developing world. To improve this, medical method of abortion has been in clinical use for over a decade. The antiprogestogen mifepristone followed two days later by a prostaglandin analogue is registered as a medical alternative to surgical termination of early intra uterine pregnancy. Since registration of medical method, research has continued to improve the medical abortion. Multicentre trials have shown that 200 mg of mifepristone orally and 800 ug of misoprostol vaginally results in a higher complete abortion percentage (95.0%). The gold standard method at present is 200 mg mifepristone orally followed by 800 ug of misoprostol vaginally 48 hrs later gives 95.0 to 97.0% success rate.

**Q:** What is safest way to MA?

**Sample:** WHO

**Date** – before 2004

**Findings:**

200 mg mifepristone orally followed by 800 ug of misoprostol vaginally 48 hrs later gives 95.0 to 97.0% success rate
surgical abortion and fear of uncertainty and side effects. The termination of pregnancy is legalised in Nepal now, these medicines could be made available in market.

PMID: 16295750
[PubMed - indexed for MEDLINE]


Acceptability and feasibility of medical abortion in Nepal. Karki C1, Pokharel H, Kushwaha A, Manandhar D, Bracken H, Winikoff B.

Author information

Abstract

OBJECTIVE:
To test the feasibility and acceptability of a simplified mifepristone-misoprostol regimen for early abortion in 2 tertiary teaching hospitals and 2 family planning clinics in Nepal.

METHODS:
Consenting pregnant women (n=400) with amenorrhea of 56 days or less seeking termination of pregnancy received 200 mg of oral mifepristone followed 48 hours later with 400 microg of oral misoprostol, administered either at home or at the clinic. Prospective data were collected to determine the women's experience, abortion outcome, and the operational requirements for providing the method.

RESULTS:
Most (91.3%) of the 367 women with known outcomes had successful medical abortions. Given the option, most (89.7%) women elected to administer the misoprostol at home.

CONCLUSION:
A simplified medical abortion protocol, including home administration of misoprostol, can be successfully integrated into clinical services in Nepal, where abortion services were recently legalized.

PMID: 19345944
[PubMed - indexed for MEDLINE]


Medical abortion versus manual vacuum aspiration in a hilly district hospital of eastern Nepal: a comparative study. Panta OP, Bhattarai D, Parajuli N.

Author information

Abstract

Q: what is accessibility and feasibility of MA in Nepal?

Sample: 400 pregnant women seeking abortion

Date: -

Findings:
simplified medical abortion protocol, including home administration of misoprostol, can be successfully integrated into clinical services in Nepal, where abortion services were recently legalized

Q: what is prevalence of medical abortion vs. MVA in hilly eastern Nepal

Sample: 48 women

Date: July 2010 to Jan 2011

Findings: Medical method of abortion using mifepristone and misoprostol is equally safe and effective as manual vacuum aspiration in rural setting district hospitals of Nepal
BACKGROUND:
Nepal government has approved medical abortion and manual vacuum aspiration for early first trimester pregnancy. Both the procedures have been approved by World Health Organization for use in early first trimester.

OBJECTIVES:
The study aims to compare efficacy and safety of medical abortion with surgical abortion in a district hospital of rural eastern Nepal.

METHOD:
An observational study conducted in district hospital, Dhankuta from July 2010 to January 2011. Clients for abortion services were counseled about methods of abortion and were allowed to make decision on their own and classified as medical abortion group (N=48) (receiving 200 milligram Mifepristone followed by 800 microgram misoprostol sublingually or vaginally on day two) and manual vacuum aspiration group (N=36). The two groups were compared for rate of complete abortion and other complications and contraception use after procedure.

RESULTS:
Rate of complete abortion was similar in both groups, 95.8% among medical abortion and 97.2% in manual vacuum aspiration. Moderate to severe expulsion bleeding was reported in 91.6% of cases after medical abortion but none required medical attention for hemorrhage. Condom was the most preferred contraceptive in medical abortion group and Depo-Provera in manual vacuum aspiration group.

CONCLUSION:
Medical method of abortion using mifepristone and misoprostol is equally safe and effective as manual vacuum aspiration in rural setting district hospitals of Nepal.

PMID:
24442167
[PubMed - in process]
advocacy for reform; the dissemination of knowledge, information and evidence; adoption of the reform agenda by the public sector and its leadership in involving other stakeholders; the existence of work for safe motherhood as the context in which the initiative could gain support; an active women's rights movement and support from international and multilateral organisations; sustained involvement of local NGOs, civil society and professional organisations; the involvement of journalists and the media; the absence of significant opposition; courageous government officials and an enabling democratic political system. The overriding rationale for reforming the abortion law in Nepal has been to ensure safe motherhood and women's rights. The first government abortion services officially began in March 2004 at the Maternity Hospital in Kathmandu; services will be expanded gradually to other public and private hospitals and private clinics in the coming years.

PMID: 15938161

[PubMed-indexed for MEDLINE]


Establishing second trimester abortion services: experiences in Nepal, Viet Nam and South Africa.
Hyman AG, Baird TL, Basnett I.

Author information

Abstract
This paper describes experiences and lessons learned about how to establish safe second trimester abortion services in low-resource settings in the public health sector in three countries: Nepal, Viet Nam and South Africa. The key steps involved include securing the necessary approvals, selecting abortion methods, organising facilities, obtaining necessary equipment and supplies, training staff, setting up and managing services, and ensuring quality. It may take a number of months to gain the necessary approvals to introduce or expand second trimester services. Advocacy efforts are often required to raise awareness among key governmental and health system stakeholders. Providers and their teams require thorough training, including values clarification; monitoring and support following training prevents burn-out and ensures quality of care. This paper shows that good quality second trimester abortion services are achievable in even the most low-resource settings. Ultimately, improvements in second trimester abortion services will help to reduce abortion-related morbidity and mortality.

PMID:
**Abstract**

Across four decades of political and social action, Nepal changed from a country strongly enforcing oppressive abortion restrictions, causing many poor women's long imprisonment and high rates of abortion-related maternal mortality, into a modern democracy with a liberal abortion law. The medical and public health communities supported women's rights activists in invoking legal principles of equality and non-discrimination as a basis for change. Legislative reform of the criminal ban in 2002 and the adoption of an Interim Constitution recognizing women's reproductive rights as fundamental rights in 2007 inspired the Supreme Court in 2009 to rule that denial of women's access to abortion services because of poverty violated their constitutional rights. The government must now provide services under criteria for access without charge, and services must be decentralized to promote equitable access. A strong legal foundation now exists for progress in social justice to broaden abortion access and reduce abortion stigma.

**KEYWORDS:** Abortion; Lakshmi Dhikta judgment; Nepal; Rights to abortion; Rural women’s rights; Supreme Court of Nepal

**PMID:** 24890742

[PubMed - as supplied by publisher]
Nepali parliament liberalized abortion up to 12 weeks of pregnancy on request. However, enhancing women's awareness on and access to safe and legal abortion services, particularly in rural areas, remains a challenge in Nepal despite a decade of the initiation of safe abortion services.

**METHODS:**
Between January 2011 and December 2012, an operations research study was carried out using quasi-experimental design to determine the effectiveness of engaging female community health volunteers, auxiliary nurse midwives, and nurses to provide medical abortion services from outreach health facilities to increase the accessibility and acceptability of women to medical abortion. This paper describes key components of the operations research study, key research findings, and follow-up actions that contributed to create a conducive environment and evidence in scaling up medical abortion services in rural areas of Nepal.

**RESULTS:**
It was found that careful planning and implementation, continuous advocacy, and engagement of key stakeholders, including key government officials, from the planning stage of study is not only crucial for successful completion of the project but also instrumental for translating research results into action and policy change. While challenges remained at different levels, medical abortion services delivered by nurses and auxiliary nurse midwives working at rural outreach health facilities without oversight of physicians was perceived to be accessible, effective, and of good quality by the service providers and the women who received medical abortion services from these rural health facilities.

**CONCLUSIONS:**
This research provided further evidence and a road-map for expanding medical abortion services to rural areas by mid-level service providers in minimum clinical settings without the oversight of physicians, thus reducing complications and deaths due to unsafe abortion.

PMID: 24886393  
[PubMed - in process]

PMCID: PMC4030462

Finding: the FIGO initiative help ensure...
Achievements of the FIGO Initiative for the Prevention of Unsafe Abortion and its Consequences in South-Southeast Asia.

Zaidi S¹, Begum P², Tank J³, Chaudhury P⁴, Yasmin H⁵, Dissanayake M⁶.

Author information

Abstract

Since 2008, the FIGO Initiative for the Prevention of Unsafe Abortion and its Consequences has contributed to ensuring the substitution of sharp curettage by manual vacuum aspiration (MVA) and medical abortion in selected hospitals in participating countries of South-Southeast Asia. This initiative facilitated the registration of misoprostol in Pakistan and Bangladesh, and the approval of mifepristone for "menstrual regulation" in Bangladesh. The Pakistan Nursing Council agreed to include MVA and medical abortion in the midwifery curriculum. The Bangladesh Government has approved the training of nurses and paramedics in the use of MVA to treat incomplete abortion in selected cases. The Sri Lanka College of Obstetricians and Gynaecologists, in collaboration with partners, has presented a draft petition to the relevant authorities appealing for them to liberalize the abortion law in cases of rape and incest or when lethal congenital abnormalities are present. Significantly, the initiative has introduced or strengthened the provision of post abortion contraception.

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KEYWORDS:

FIGO initiative; Post abortion care; Post abortion contraception; Prevention; South-Southeast Asia; Unsafe abortion; Uterine evacuation

PMID:

24743025

[PubMed - as supplied by publisher]