# Deaths among Women of Reproductive Age: an Explorative Case Study among Abortion Seekers

#### Preeti Gautam,<sup>1</sup> Mahesh C Puri,<sup>2</sup> Sunita Karki,<sup>2</sup> Diana Greene Foster<sup>3</sup>

<sup>1</sup>School of Health and Social Wellbeing, University of the West of England, Bristol, United Kingdom, <sup>2</sup>Center for Research on Environment, Health and Population Activities (CREHPA), Kusunti, Lalitpur, P.O. Box 9626, Kathmandu, Nepal, <sup>3</sup>Department of Obstetrics, Gynecology and Reproductive Sciences, Advancing New Standard in Reproductive Health, University of California, San Francisco, USA.

In Nepal, abortion was legalized in 2002. Yet many women are denied abortion services. Women denied abortion services may either continue their pregnancies or find abortion care elsewhere. However, what is not known is the consequences on women, and their children after accessing abortion services or after being denied abortion services. This comment aims to understand the cause of death of women who sought abortion services between 2019 and 2020 and were enrolled in a longitudinal nationwide study of the consequences of legal abortion access in Nepal.

Women were interviewed 6 weeks and every 6 months for 3 years after seeking abortion. During the follow-up interviews, the field research assistants were informed about the death of the clients. Once the death was reported, a trained senior research staff visited the deceased persons house and interviewed family members including husbands, maternal parents or in-laws to explore the cause of death.

A total of nine deaths were reported between April 2019 and December 2022. Out of nine deceased women, four received abortions while five of them were initially denial abortion services. The majority of the deaths were due to suicide followed by tuberculosis. None of the deaths were caused by abortion or birth.

Keywords: Death; Nepal; reproductive ages; womens health.

## INTRODUCTION

toys

Nepal legalized abortion in 2002. Abortion is currently legal up to 12 weeks gestation on request, up to 28 weeks gestation in cases of rape or incest or if the pregnant woman is living with HIV or some other incurable disease or if the pregnancy poses a danger to the woman's life, physical health, or mental health; or if there is a fetal anomaly.<sup>1</sup> In 2021, abortion explained 4% of total maternal deaths in Nepal and is one of the leading causes of maternal mortality.<sup>2</sup> Over the years, the Ministry of Health and Population has developed strategies to implement and expand safe and legal abortion services. Yet, one in ten women legally eligible are denied abortion services.<sup>3</sup> Women denied abortion care from a certified health facility may either continue their pregnancies or find abortion care elsewhere.<sup>4</sup> However, what is not known is the consequences on women, and their children after accessing abortion services or after being denied abortion care. In this study we explored the cause of death of women who sought abortion service between 2019 and 2020 and were enrolled in a longitudinal nationwide study of the consequences of legal abortion access in Nepal.

## **METHODS**

The data in this paper came from a longitudinal study that aimed to investigate the predictors of denial of abortion services and to examine the consequences of unwanted pregnancy for women and their children in Nepal. This study enrolled 1,841 women seeking abortion between April 2019 to December 2020 across 22 health facilities (public and private/ NGO run facilities) in Nepal. Through targeted recruitment of those who were turned away, the overall study population consisted of 83% who received abortion and 17% who did not receive abortion services. Surveys were conducted 6 weeks and every 6 months for 3 years after abortion seeking. As part of

Correspondence: Preeti Gautam, School of Health and Social Wellbeing, University of the West of England, Bristol, United Kingdom, Email: preeti2.Gautam@live.uwe.ac.uk, Phone: +9779841828463.

the protocol, all severe adverse health events including death were recorded. During the follow-up interviews, the field research assistants were informed about any death of the study participants. Once the death was reported by field research assistants, a trained senior research staff member visited the deceased person's house and interviewed family members including husbands, maternal parents or in-laws. Questions related to symptoms developed during her final days, pregnancy and menstruation, health-seeking behaviour, injuries, and substance use were asked during the interview. The interview lasted an average of 1 hour and 30 minutes. This study received approval from the Institutional Review Boards of the University of California, San Francisco (18-258863), and the Nepal Health Research Council, in Nepal (Regd No 704/2018).

## RESULTS

Among the 1841 participants, nine deaths have been reported between April 2019 and December 2022. Two women died after 6-week follow up survey, four women died after 6 month follow up, one woman each died after 12 month, 18 month and 24 month follow up. Based on our review and data, none of the deaths were caused by abortion or birth. The age of decedents was between 18 and 27 years at baseline. Eight women were living in urban municipality while only one was living in rural municipality. Among nine women, three each belonged to Brahmin/Chhetri, Hill Janajati and Terai Janajati. The majority of the deceased women (7 out of 9) had completed secondary level of education. Eight women were married and living with their husbands at the time of their death. Most women (6 of 9) had at least one child, four had at least one son, while the remaining three of the participants were nulliparous (Table 1).

Out of nine decedents, four received abortions while five of them were initially denial abortion services. Of these five, three were denied abortion due to high gestational age. Three of the five denied an abortion sought abortion elsewhere and received the service, while one participant continued her pregnancy and gave birth. One participant reported having had a miscarriage.

Three participants passed away due to suicide, two from tuberculosis, and four due to singular causes: cancer, cardiac arrest, paralysis and kidney failure. Seven participants during their last follow up interview reported that they were in good physical health whereas only two reported poor health. These participants either did not want to report their illness or did not know about their health status. For instance, one family member of a participant shared that that the participant had epilepsy, but she did not reveal it to her family members after her marriage. She stopped taking medicines used for treatment of epilepsy after marriage and eventually died by suicide. One of the women who died by suicide reported that she was facing physical violence (such as getting slapped, punched, being pushed) from her husband during her last follow up interview.

26 years old Seema (name changed) was married for nine years. She had one daughter and a son. She had completed her secondary education. She received an abortion from an NGO clinic, a 3-hour ride in a bus. She took part in the 6 week and 6-month follow up interviews before her death. She was suffering from epilepsy before her marriage, but she did not share it with her in-laws. Only after few years of marriage, her in-laws came to know about it and she was taken to a hospital for treatment and was prescribed a daily medicine, which she may not have taken consistently, according to her family.

Two weeks before Seema's death, she became sick with a fever, cough and cold. Her family took her to a public hospital. She was sent home with some medicine. She unfortunately hanged herself at her home. At a 6 week follow up interview, she reported having a good relationship with her husband and not having any kind of violence. However, she shared trust issues with him. During her 6 month follow up interview, she expressed feeling nervous, anxious but did not report feeling down or depressed and was a little bit satisfied with her life.

22 years old Rita (*name changed*) was married for four years. She had a son. She had completed 9<sup>th</sup> grade of education. She received an abortion from an NGO clinic, a 3-hour ride by bus. She took part in the 6 week and 6-month follow up interviews before her death. During her 6-month follow-up interview Rita shared that she frequently felt nervous, anxious, depressed, or unable to stop or control worrying. She also had less interest or pleasure in doing things. We were told that Rita was mistreated by her in-laws during her follow-up interviews. She died by suicide at her home.

| Table 1. Selected socio-demographic characteristics of participants. |                                 |  |                   |                                 |                      |  |  |                               |                   |
|--|---------------------------------|--|-------------------|---------------------------------|----------------------|--|--|-------------------------------|-------------------|
| Age<br>range of<br>women<br>at the<br>time of<br>death               | Years of<br>formal<br>schooling | Currently<br>living<br>with<br>husband     | Ethnicity         | Number<br>of living<br>children | Received<br>abortion | Outcomes<br>of<br>pregnancy<br>after<br>denial | Timing of<br>death after<br>enrollment | Reported<br>cause of<br>death | Place of<br>death |
| 20-25  | 10                              | Yes  | Terai<br>Janajati | 1 or<br>more                    | No                   | Miscarriage                                    | 6 week                                 | Paralysis                     | Home              |
| 20-25  | 9                               | Yes  | Terai<br>Janajati | 1 or<br>more                    | Yes                  | -  | 6 month                                | Suicide                       | Home              |
| <20  | 10                              | Yes  | Hill<br>Janajati  | 0                               | Yes                  | -  | 12 month                               | Suicide                       | Home              |
| <20  | 10                              | Yes  | Hill<br>Janajati  | 1 or<br>more                    | No                   | Gave birth                                     | 6 month                                | ТВ                            | Home              |
| 26-30  | 13                              | Partner<br>living<br>elsewhere<br>in Nepal | Brahmin           | 1 or<br>more                    | Yes                  | -  | 24 month                               | Heart<br>attack               | Gov<br>Hospital   |
| 20-25  | 6                               | Yes  | Chhetri           | 1 or<br>more                    | No                   | Sought<br>elsewhere                            | 6 month                                | Cancer                        | Gov<br>Hospital   |
| <20  | 10                              | Yes  | Chhetri           | 0                               | No                   | Sought<br>elsewhere                            | 6 week                                 | ТВ                            | Home              |
| 26-30  | 11                              | Yes  | Hill<br>Janajati  | 1 or<br>more                    | Yes                  | -  | 6 month                                | Suicide                       | Home              |
| 26-30  | 10                              | Yes  | Terai<br>Janajati | 0                               | No                   | Sought<br>elsewhere                            | 18 month                               | Kidney<br>Failure             | Hospital          |

# DISCUSSION

The most common cause of death in this study was suicide. Suicide was also a common cause of deaths among teenager in Bangladesh. 5 Suicide accounts for 11% of death of women of reproductive age group and was the second leading cause of death in Nepal. <sup>6</sup>Women attempt suicides more often than men do (68% vs 32%) and most of these deaths (64%) occur during their young adulthood (20-35 years) in Nepal.<sup>7</sup> According to the World Health Organization, Nepal has the third-highest rate of female suicide deaths in South Asia.<sup>8</sup> Abuse, marital disputes, relationship problems, interpersonal conflicts, adjustment problems, financial hardships, substance abuse, poor mental health are common reasons for suicide among women in Nepal.9 The most common method of suicide was by hanging (63%) followed by poison (31%) in Nepal.<sup>10</sup> Hanging was also the most common method of suicide in our study.

Many participants in our study reported intimate partner violence before their death. In Nepal, one-quarter (26%) of married women have either experienced physical,

sexual, or emotional violence, with the most common type being physical violence in Nepal.<sup>11</sup> The risk of intimate partner violence in women has been linked to low education<sup>11</sup>, employment (less or equivalent earnings as compared to husband's earnings)<sup>11</sup>, earlier exposure intimate partner violence as a child<sup>11,12</sup> and husband's alcohol misuse.<sup>12</sup>

In our study, the data suggest that one of the participants had epilepsy, but she did not share it with her family members. In Nepal, there are 7.3 epilepsy cases per 1000 people, and there is a treatment gap of more than 80%.<sup>13</sup> Poor public health infrastructure including the availability of trained health care professionals and antiepileptic drugs, inadequate knowledge, poverty, and stigma are some of the reasons for this huge treatment gap. In Nepal, epilepsy is frequently misunderstood to be a mental health problem and believed to be contagious. In our study, whether stigma and blame around her epilepsy caused her suicide is not confirmed. However, the government should have sustained and coordinated action to prioritize epilepsy and its management. This study does not represent a random sample of women in the country. Instead, we recruited people at accredited abortion facilities. The fact that the causes of death are not related to either abortion or childbirth is reassuring. Instead, we see patterns of morbidity that are similar to women who were not necessarily seeking abortion. Inaddition, as this study is an explorative case study, we cannot make any causal relationship between abortion and death among women. Further research work is needed to examine physical and mental health morbidity among women who sought abortion care in Nepal.

There is room for improvement and government intervention in women's health. Clearly, more attention needs to be paid to prevent and respond rapidly to violence against women. Given the high rate of suicide among women of reproductive age, there is a clear need for psychological services to improve mental health of women of reproductive health, and victims of domestic violence and sexual assault.

# **CONCLUSIONS**

In conclusion, this study sheds light on critical issues affecting women's health in Nepal. The alarming prevalence of suicide, especially among women of reproductive age, highlights the urgent need for comprehensive psychological support services. The prevalence of intimate partner violence underscores the necessity for targeted interventions addressing education, employment, and alcohol misuse. While limitations exist in the study's sampling approach, the findings remain valuable for identifying patterns of morbidity beyond abortion or childbirth. A cohesive government effort is essential to enhance women's wellbeing, prioritize mental health, and combat violence.

# **CONFLICT OF INTEREST**

The authors declare no conflict of interest

#### REFERENCES

- Puri M, Tamang A. Addressing Gaps in Safe Abortion Services in Nepal. 2022. Accessed on 18th May 2023.
- MoHP, NSO. (2022). National Population and Housing Census 2021: Nepal Maternal Mortality Study 2021. Kathmandu: Ministry of Health and Population; National Statistics Office. Available from: https://censusnepal.cbs.gov.np/results/

#### downloads/national. Accessed on 4 June, 2023

- Puri MC, Raifman S, Khanal B, Maharjan DC, Foster DG. Providers' perspectives on denial of abortion care in Nepal: a cross sectional study. Reproductive health. 2018 Dec;15:1-8.doi: https://doi. org/10.1186/s12978-018-0619-z
- Puri M, Vohra D, Gerdts C, Foster DG. "I need to terminate this pregnancy even if it will take my life": a qualitative study of the effect of being denied legal abortion on women's lives in Nepal. BMC women's health. 2015 Dec;15(1):1-1.doi: https://doi.org/10.1186/s12905-015-0241-y
- Nahar Q, Alam A, Mahmud K, Sathi SS, Chakraborty N, Siddique AB, et al. Levels and trends in mortality and causes of death among women of reproductive age in Bangladesh: Findings from three national surveys. Journal of global health. 2023;13.doi: https://doi.org/10.7189/jogh.13.07005
- Pyakurel R, Sharma N, Paudel D, Coghill A, Sinden L, Bost L, et al. Cause of death in women of reproductive age in rural nepal obtained through community-based surveillance: is reducing maternal mortality the right priority for women's health programs?. Health care for women international. 2015 Jun 3;36(6):655-62.doi: https://doi.org/10.1 080/07399332.2014.908193
- Thapaliya S, Gupta AK, Tiwari S, Belbase M, Paudyal S. Pattern of suicide Attempts in southern nepal: A Multi-centered retrospective study. Med phoenix. 2018 Aug 15;3(1):41-7.doi: https://doi. org/10.3126/medphoenix.v3i1.20761
- World Health Organization. World Health Statistics data visualizations dashboard. Available from: http://apps.who.int/gho/data/node.sdg.3-4-viz-2?lang=en. Accessed on 8 June 2023.
- Kasaju SP, Krumeich A, Van der Putten M. Suicide and deliberate self-harm among women in Nepal: a scoping review. BMC women's health. 2021 Dec 9;21(1):407.doi: https://doi.org/10.1186/s12905-021-01547-3
- Hagaman AK, Khadka S, Lohani S, Kohrt B. Suicide in Nepal: a modified psychological autopsy investigation from randomly selected police cases between 2013 and 2015. Social psychiatry and psychiatric epidemiology. 2017 Dec;52:1483-94.

doi: https://doi.org/10.1007/s00127-017-1433-6

- Clark CJ, Ferguson G, Shrestha B, Shrestha PN, Batayeh B, Bergenfeld I, Chang S, McGhee S. Mixed methods assessment of women's risk of intimate partner violence in Nepal. BMC women's health. 2019 Dec;19:1-8.doi: https://doi.org/10.1186/ s12905-019-0715-4
- 12. Ghimire A, Samuels F. Understanding intimate partner violence in Nepal: prevalence, drivers and challenges. London: Overseas Development Institute, Nepal Institute for Social and. Environ Res. 2017.
- 13. Rajbhandari KC. Epilepsy in Nepal. Neurol J Southeast Asia. 2003; 8: 1-4