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Original Research Article

Impact of COVID-19 pandemic on safe abortion and family planning services at a tertiary care women's hospital in Nepal

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ABSTRACT

Background: The COVID-19pandemic emerged as a major public health crisis, which has affected all dimensions of the health care system. Sexual and reproductive health services were severely affected, leading to a decrease in access and service utilization, affecting the overall health of women.
Methods: A two-year comparative study, before and during the COVID-19 pandemic, on safe abortion services and family planning, was conducted at Paropakar maternity and women's hospital to assess the impact of COVID-19 on service utilization.
Results: Safe abortion services were decreased by 34.4%, and family planning services by 39%, in 2020 as compared to the previous year. Uptake of long-acting reversible contraceptives and permanent methods was most affected. Utilization of services was affected markedly during lockdown, and showed a persistent decline, even after the lockdown was lifted.
Conclusions: The COVID-19 pandemic has seriously affected safe abortion and family planning services in Nepal due to lockdown, travel restriction, home isolation, resource reallocation, health facilities serving only emergencies and confusing messages about COVID-19 control. The decline in these services will create additional demand and pressure on the health care system, resulting from unplanned pregnancies and unsafe abortions. Health care staffs should be reoriented about the essential nature of safe abortion and family planning services during emergencies, and the implications of service disruption, on society and the country. Pragmatic and gender sensitive changes to national policies should be made, to ensure that women's health is safeguarded, and safe abortion and family planning included as essential health care services during emergencies.

Keywords: Safe abortion, Contraception, Family planning, COVID-19, Sexual and reproductive health, Nepal

INTRODUCTION

The COVID-19 pandemic has emerged as a major public health care crisis. Governments all over the world have quickly adapted and responded, to interrupt the virus transmission chain, and in providing care to those infected. Nepal announced nationwide lockdown on 23 March; in response many health institutions curtailed their regular services, providing emergency care only.

Previous experiences of all major epidemics since 2003 have shown a serious negative impact on maternal, reproductive and child health services. Resource diversion for outbreak management, has contributed to a rise in negative outcomes for regular programs, including

increased maternal mortality, unsafe pregnancies and unsafe abortions.[1] Reports from the 2014–2015 Ebola epidemic suggest, that the shutdown of routine services resulted in more maternal and child mortality and morbidity than the outbreak itself.[2]

Nepal has seen a dramatic decrease in maternal mortality rate (MMR) over the last two decades, declining from 901 per 100,000 live births in 1990 to 258 per 100,000 live births in 2016.[3] This decline has been largely attributed to the legalization of abortion, availability of safe abortion and family planning services in Nepal. Unsafe abortion is one of the most preventable causes of maternal mortality worldwide.[4] Safe abortion services are very crucial as they are time sensitive and women may resort to unsafe measures, in absence of these services. Limited access to family planning services can lead to increase in unwanted pregnancy, leading to psychological stress and an increased possibility of resorting to unsafe means of termination, if safer options are unavailable.

In the face of COVID-19 infection, with national lockdown and surge in COVID cases, it is plausible that routine safe abortion services were affected, leading to increased risk to women health. This study aims to determine the effect of COVID-19 on safe abortion and family planning services, at a tertiary referral women's hospital in Nepal.

METHODS

This is a comparative research study of data for two years (2019 and 2020), before and during the COVID pandemic, on safe abortion services and family planning. This study was conducted at Paropakar maternity and women's hospital (PMWH), Kathmandu, Nepal. PMWH is a tertiary teaching and referral hospital situated in the capital of Nepal, the biggest and only hospital dedicated to reproductive health. Safe abortion and family planning services are one of the major services provided in this hospital apart than regular maternity and gynecological care. More than 50% of the total deliveries in Kathmandu valley are conducted at this hospital, and 26% of total abortion services in Kathmandu. Hospital continued its regular services along with safe abortion and family planning facilities during COVID-19 pandemic.

The abortion and family planning unit registry at PMWH, were used to collect data for two years a presented in the tables below. The Pre-COVID period is taken as being from 1 January 2019 to 31 December 2020, while the COVID pandemic period is taken from 1 January 2020 to 31 December 2020. The first case of COVID 19 was reported in Nepal on 24 January followed by a nationwide lockdown from 23 March 2020.[5] We compared the yearly data as a whole, to get an aggregate and also compared monthly data, so that seasonal variations could be taken into account. We also analyzed quarterly data for uptake of services in the same year to account for pre lockdown, lockdown and post lockdown service utilization and compared it to the previous year.

Inclusion and exclusion criteria

Criteria for inclusion and exclusion in current study were; all women attending abortion and family planning unit for services, and who fall under legal framework of service provision of abortion were included. Women more than 22 weeks were excluded.

Data analysis

Microsoft Excel version 2016 was used to analyze the collected data. Comparisons of data during these periods are reported as percentage differences.

RESULTS

Data for two years (2019 and 2020) were collected and compared. The demographic characteristics of women attending abortion and family planning clinics is presented in Table 1 and Table 2. The majority of women seeking abortions were from 21-40 years with parity 2; 84% had education only up to higher secondary and were mostly from upper caste and janjati groups.

Similarly most family planning users were also from the 21 to 40 years age group with parity 2. 67 % of these women had education upto higher secondary and were again, mostly from upper caste groups and janjati. Safe abortion services in the year 2020,were decreased by 34.4% as compared to the year 2019 (Table 3)

First trimester services were severely affected much more so than second trimester abortion services. (38% vs. 2.4%) There was almost no difference in the total number of clients seeking second trimester abortion services. (Table 3)

Overall, 39% decrease in the utilization of family planning services was noted during the year of pandemic, as compared to the pre-COVID year. There was a significant decrease in utilization of all the methods of family planning; however, the greatest reduction was seen in the use of long-acting reversible contraceptives (LARC) and permanent methods. (Table 4)

The lockdown in Nepal, which started on 24 March, continued for four months, ending on 21 July 2020. The data for safe abortion and family planning services was also analyzed for three periods, pre- lockdown, lockdown and post lockdown and compared to the previous year's data for the same months. The differences in service utilization were striking as compared to the previous year.

Service utilization for both safe abortion as well as family planning services, showed an increasing trend in the pre lockdown period in 2020. However, during the lockdown

period, the services were decreased by more than 50 percent as compared to the previous year. The data after lockdown also shows a decline of more than 40% in first trimester abortion and family planning service utilization, with a nominal increase in second trimester service utilization in 2020 as compared to 2019. (Table 5)

DISCUSSION

The COVID-19 pandemic is impacting severely on the delivery of sexual and reproductive healthcare across the world. The lockdown has affected reproductive health services with a negative impact on women's health overall; however, women from disadvantaged groups face even greater challenges.[6]

Table 1: Demography of comprehensive abortion care users at PMWH.

Parameters	2019		2020	
	N	%	N	%
Age (years)				
≤20	172	12	155	17
21-30	583	42	407	44
31-40	592	42	305	33
41-49	49	4	49	5
Total	1396		916	
Education level				
0-5 Primary	392	28	233	25
6-8 Lower secondary	142	10	89	10
9-10 Secondary	345	25	237	26
Higher secondary	292	21	200	22
Bachelor's	164	12	105	11
Master's	61	4	52	6
Total	1396		916	
Parity				
Nullipara	176	13	215	24
Para 1	343	24	208	23
Para 2	696	50	244	27
Para 3 and above	181	13	249	26
Total	1396		916	
Caste/ ethnicity				
Dalit	74	5	35	4
Janjati	638	46	407	44
Madheshi	86	6	39	4
Muslim	35	3	32	3
Brahmin (upper caste)	563	40	403	44
Total	1396		916	

According to International Planned Parenthood Federation (IPPF), the South Asia region has seen the largest number of closure of clinics and service outlets. They have been forced to cut sexual and reproductive health services as a result of COVID-19 restrictions, and also limitation in availability of key commodities and supplies.[7]

Table 2: Demography of family planning users at PMWH.

Parameters	2019		2020	
	N	%	N	%
Age (years)				
≤20	446	10	215	7
21-30	2444	48	1040	33
31-40	1229	25	1335	43
41-49	891	17	536	17
Total	5110		3126	
Education level				
0-5 Primary	448	9	244	8
6-8 Lower secondary	136	3	386	12
9-10 Secondary	1113	22	576	18
Higher secondary	1894	37	687	22
Bachelor's	902	18	830	27
Master's	617	12	403	13
Total	5110		3126	
Parity				
Nullipara	220	4	106	3
Para 1	1620	32	1162	37
Para 2	2830	55	1655	53
Para 3 and above	440	9	203	6
Total	5110		3126	
Caste/ ethnicity				
Dalit	953	19	359	11
Janjati	1364	27	995	32
Madheshi	826	16	531	17
Muslim	282	6	112	4
Brahmin (upper caste)	1685	33	1129	36
Total	5110		3126	

Current study shows a significant reduction in abortion and family planning services. The overall utilization of safe abortion services decreased by 34%. It is interesting to note the large reduction in first trimester (38%) compared to the much smaller fall in second trimester abortions (2.35%) (Table 3). This data suggests that women who planned early pregnancy abortions had to wait till lockdown was lifted to avail of services (Table

3). First trimester abortions are considered easy, safe, require less expertise and are available easily in all registered centers. The services for second trimester abortions are available in a limited number of hospitals in Nepal, as they need higher degree of expertise, skill and a more advanced clinical set up. This data clearly shows that there was a shift in percentage of clients seeking first trimester abortion to second trimester abortion, as compared to the previous year. Restricted access of safe abortion increases the likelihood of women resorting to unsafe measures due to lack of access and expertise. There may be rise in unwanted pregnancies with psychological and economic consequences for women and their families.

Table 3: Safe abortion services, first and second trimester.

Year (January to December)	First trimester	Second trimester	Total
2019	1263	133	1396
2020	786	130	916

Table 4: Family planning services.

Method Type	Year 2019	Year 2020	% Reduction
Condoms	2800	1512	46
COC	311	291	6.43
Injectables	412	336	18.45
Implants	1327	836	37
IUCD	223	133	40.4
Bilateral tube ligation (interval)	37	18	51.4
Total	5110	3126	38.9

Family planning services decreased by 39%. The reduction in use of long term reversible contraceptive (LARC) and permanent methods is significantly greater than short term contraceptive methods (Table 4). LARC is recommended as a primary option for contraception to reduce unwanted pregnancy due to the high level of effectiveness, safety and lesser chances of failure.[8] The reduction in the use of long term and permanent contraception is an indirect indicator of the increased likelihood of unwanted pregnancies and its future implications.

Long term reversible contraceptive (LARC) methods require women to go the health facility to seek services, as well as needing trained human resources. While travel restriction and forced home isolation, are seen as the cause of reduced uptake of these services, the lack of clarity among the public as well as service providers, about which services were expected to be available without compromise during the lockdown, is possibly a major contributor to the decline in these services. Historically, contraception and safe abortion care have been described as 'elective' or ' on request' and therefore universally not considered essential, or in some cases even legitimate healthcare.[9] This narration of abortion being non-essential and an elective procedure, has negatively affected sexual and reproductive health of women for long.

A comparison of the data pre lockdown, lockdown and post lockdown in pre- pandemic (2019) and during the pandemic (2020), shows dangerous trends. While service utilization showed an increasing trend before lockdown, there was a drastic decrease of more than 50% during the lockdown, which can be explained by multiple factors described above. However even after the lockdown was lifted, service utilization was slow to pick up. Service utilization of first trimester abortion and family planning services, decreased to more than 40% as compared to the previous year; however, there was a minimal increase of 4.6% in seeking for second trimester abortion services (Table 5). It appears women as well as their family members, were still confused and wary of visiting the hospital, leading to continued slowing in utilization. A very important lesson learnt from this data is that once there is disruption in services due to any reason, it is difficult to attain normalcy and get the clients back into the system. There is evidence from previous epidemics mainly Ebola that service utilization had not recovered to prior levels, even after six months.[10] This indirectly implies that service disruption has a sustained effect and can be very detrimental for women's health.

According to a recent study based on Guttmacher Institutes Adding it up 2019 study on SRH provision in 132 low and middle income countries, it was estimated that 10% proportional decline in short-acting reversible contraceptive use in Nepal, due to decrease in access to services, would result in 131,700 women with unmet need for modern contraception and an estimated 19,000 extra unintended pregnancies over a twelve months period. Similarly, the impact of 10% shift in abortions from safe to unsafe, assuming no change in the overall number of abortions or live births, estimated 14,500 unsafe abortions in place of safe abortions.[11,12]

The decrease in maternal mortality in Nepal has been directly linked to legalization of abortion and expansion of safe abortion services all over the country.[13] The decline in services during emergencies such as the COVID-19 pandemic, makes women vulnerable to undergo unsafe abortion with inadequate post abortion care, which can lead to serious complications such as post-abortion sepsis, hemorrhage, perforation, genital trauma and maternal death. These complications are higher, when unsafe abortion is performed in the later months of pregnancy.[13,14] Similarly women carrying unplanned pregnancy are more prone to delay or not seek antenatal care, which is associated with twice the risk of severe maternal and perinatal morbidity, including premature birth, intrauterine growth restriction, intrauterine fetal death, postpartum hemorrhage,

eclampsia and placental abruption, when compared to women with planned and adequate antenatal care.[15]

The sharp decline in service utilization at PMWH, implies that there is an increase in unintended pregnancies as well as unsafe abortions. Though we do not have any direct data about unsafe abortions during the period of the lockdown, it would be interesting to conduct a community-based study in this regard.

Summary

The COVID-19 pandemic has seriously affected safe abortion and family planning services in Nepal. National lockdown, travel restriction, home isolation, resource reallocation, health facilities serving only emergencies, and confusing messages and understanding, during the COVID-19 pandemic, are possible explanations for the decline in service utilization. However, it must be understood, that the potential large increase in unplanned pregnancies and unsafe abortions, will create additional demand and pressure on an already burdened health care system, in low resource countries such as Nepal. Health care staffs should be reoriented during emergencies about the essential nature of safe abortion and family planning services and implications of service disruption on society and the country. This calls for pragmatic and gender sensitive changes to national policies to ensure that women's health is safeguarded and safe abortion and family planning are included as essential health care services during any emergency, such as the current COVID-19 pandemic, and in all contingency plans.

Table 5: A comparison of safe abortion and family planning service utilization- before lockdown, during and after lockdown, compared with the previous year.

Services	Pre-lockdown 4 months		% increase/ decrease	lockdown 4 months		% increase/ decrease	Post lockdown 4 months		% increase/ decrease
	2019	2020		2019	2020		2019	2020	
First trimester abortion services	382	398	4.2	473	207	−56.2	339	189	−44.3
Second trimester abortion services	35	37	5.7	51	25	−51	44	46	4.6
Family planning	1440	1576	9.4	1557	587	−62.3	1413	767	−45.7

Local government can play a key role to help identify the needs of women and to increase access to reproductive health services, working directly with communities, to ensure distribution and collection points for family planning commodities and medical abortion at the health units of local government (Palika), through involvement of female community health volunteers (FCHV) and local health staff. Virtual and self-care models of safe abortions with community participation as well as a strong backup plan to manage complications should be rolled out, with an interrupted supply chain during this period.

Limitations

Limitations of current study were; study was based on the data from a single tertiary women's hospital, located in the capital of Nepal and thus the findings cannot be generalized to the rest of the country. It is advisable to analyze data from other hospitals to determine trends in utilization of these services, at other levels of the health system in the country.

CONCLUSION

The COVID-19 pandemic has seriously affected the access to safe abortion and family planning services in Nepal. While the reduction in Family planning service utilization was 39%, SAS service utilization was reduced by 34.4% between 2019 and 2020, with a disproportionately greater impact on first trimester abortions. This implies that more women are resorting to unsafe abortion or having unwanted pregnancies, with resulting serious implications on women's health, and potentially increased maternal mortality and morbidity. The ministry of health and population, Nepal and its developmental partners should take immediate actions to classify family planning and Safe Abortion services as a priority and essential services, to be continued during this pandemic. Reorientation of health care staff and female community health volunteers, use of telehealth (both audio and video), self-care models for use of medical abortion and family planning and upholding skilled service providers at facility seems obligatory. With the wake of a second wave of COVID infection, and rise in cases, integration of sexual and reproductive health as a part of the COVID-19 response plan is much needed, and failing to do so may threaten the achieved progress on maternal health in the millennium development goals, and reducing the likelihood of achieving the sustainable development goal targets for maternal mortality and sexual and reproductive health.

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