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Status of Spousal Violence Experienced Women and Its Consequences on Reproductive Health Outcome in Rural Nepal

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ABSTRACT

Spousal violence causes a broad range of serious public and reproductive health problems. Spousal violence is widely prevalent in Nepal but rarely addressed in reproductive and maternal health matters. The objective of This paper is to explore the significant differences between spousal violence experienced and non-experienced rural women based on their socio-demographic and reproductive characteristics. Data was based on Nepal Demographic and Health Survey (NDHS), 2016, a publicly available dataset from dhsprogram.com/data/. The study was limited to 1389 currently married rural women in Nepal. A total of 351 spousal violence-experienced women, and 1038 non-experienced women were included in this study. More than half of sexual violence experienced women (57%) were aged 20-34 years with the highest pregnancy loss (33.7%). No schooling percentage was considerably higher among spousal violence experienced women (92.4%) than non-violence experienced women (45%). Two third (39.9%) of spousal violence experienced women had severe physical violence and 27.6 percent had sexual violence. Half of the spousal violence experienced women did not use any FP method. Two-fifth of violence-experienced women agreed on the justification for statements regarding wives beating. Age group and husband's Level of education were significantly associated with induced abortion at 0.05 level. The higher percentage of pregnancy loss was found in sexual violence experienced women (41%), and they were statistically significant at a 0.05 level. Binary logistic regression showed that women who experienced at least one form of violence (OR =2.1, CI =1.050-4.253), physical violence, and severe physical violence (OR=2.1, CI= 1.190-3.532), were statistically significant at 0.05 level. Pregnancy losses were 1.4 times more likely to experience sexual violence experienced women at 95 percent confidence interval. Reproductive outcomes of spousal violence experienced women were the highest, and some were statistically significant. Hence, spousal

violence is essential to incorporate into reproductive and maternal health to minimize spousal violence and deliver quality, inclusive and sustainable health services. Furthermore, family planning, pregnancy, and abortion-related programs should focus on sexual violence experienced women.

Keywords: Spousal violence, reproductive health, pregnancy loss and induced abortion

INTRODUCTION

Spousal violence (SV) is a globally complex phenomenon that occurs in all countries regardless of culture and tradition. Because of its complexity, it needs to address more comprehensively and holistically (World Health Organization, 2002; WHO, 2012; Chibber & Krishnan, 2011). Spousal violence is any behaviour within a marital relationship that causes physical, sexual, psychological, and emotional harm. Spousal violence affects both men and women, but women face it more frequently than men (Gilles, 2015; Thakuri et al., 2020). It is a public health problem and a human rights violation (Thakuri et al., 2020). Spousal violence causes many health effects, including public and reproductive health. Because of women's inferiority, gender roles, and patriarchal values, the prevalence of spousal violence is seen as higher (WHO, 2005). More importantly, most people perceive spousal violence as a private issue that impedes exploring its associated factors, prevalence, consequences, and impacts (Pallitto & O'Campo, 2004). In most Asian countries, spousal violence is widely prevalent and socially silenced because of their different norms, values, and other socio-economic and demographic factors. After launching the regional campaign by United Nations Development Fund for women in 1998, the issue of regarding Violence against Women (VAW) came into the ground in Africa, Asia, the Pacific, and Latin American countries. Accordingly, in 1999, UNFPA declared the VAW a public health priority. Violence against women depends on personal, situational, and sociocultural factors, and most women and girls in lower-middle-income countries are affected by child abuse, child marriage, intimate partner violence, and its negative effects on SRH outcomes such as pain during sex, arousal problems, and risky sexual behaviours (Paudel, 2021).

In medical curricula in Asia pacific countries, gender-based violence is still lacking. Studies showed that sexual violence is the product of male behaviour. A study from men's perspectives found that 7 percent of husbands reported that they had physically forced sex on their wives at some point in time, and it was more common among husbands who had extramarital sex and had symptoms of sexually transmitted infections (Asian Pacific Resource & Research Centre for Women, 2011; Abrahms et al., 2004). Regarding the category of spousal violence, Michael P Johnson focused on two types of intimate partner violence; one is intimate terrorism, which is the type of violence characterized by terms like "batter and "wife abuse", where primarily male perpetrators use multiple, escalating patterns of control to dominate their partner. Another is situational couple violence, which is not linked to an effort by one partner to control their spousal, and it is perpetrated by both women and men (Anderson, 2008).

Different theories have different perceptions of domestic violence; the feminist theory says that the root of violence is gender inequality, while the system theory focuses on the family system and mentions that domestic violence is a symptom of the unbalanced family system. Likewise, exchange theory focuses on the social setting, and violence and abuse occur because of their social setting and situation where rewards are higher than the cost (Kaplin, 2019). Empowerment is an essential element in achieving good sexual and reproductive health outcomes. Globally men have more social, economic, and political power, and it covers sexual norms and policies which protect the issue of spousal violence. It says that violence occurs because of the unbalanced power relationship, and it remains a root cause of gender-based violence. Violence occurs from individual-level factors such as aggression, alcohol and drug use, family, cultural attitude, and social norms are equally responsible for legitimizing violent behaviours (Htun & Jensenius, 2020). In another approach, social norms are informal rules derived from the social system (Clark et al.). More noticeably, spousal violence is directly connected with other forms like societal/ community violence, child marriage, childhood abuse, and neglect. The foundation of all these forms of violence starts early in life, and many racial/ ethnic and sexual minority groups are affected, so we need to prevent all forms of violence by exploring the root cause (Niolon et al., 2017).

Spousal violence affects the whole quality of life and survivorship of women and children. It is a severe public and reproductive health problem, for instance, non-use of family planning, higher rates of non-birth outcomes such as induced abortion, and pregnancy losses, which are some primary adverse health outcomes (Johri et al., 2011). Literature related to spousal violence and reproductive outcomes showed different association levels; some case-control single prospective studies have not shown the association with pregnancy outcomes inversely, most of the cross-sectional studies reported a positive association with some limitations (Johri et al., 2011). Not only directly but spousal violence is also experienced by women indirectly impacted reproductive outcomes. A study from Bangladesh found that abused pregnant women had a diminished from the consumption of food supplements provided by the National nutrition program and consequently effects on women as well as their upcoming children. Likewise, violence directed at pregnant women was highly severe in rural Bangladesh, and the intentional death (homicide and suicide) rate was also higher (Johnston & Noved, 2008). A study in Colombia estimated that stopping intimate partner violence would prevent over 32,000 unintended pregnancies every year and found higher rates of miscarriage and stillbirth because of IPV (Gilles, 2015).

Right-based approach to family planning and reproductive health interpretations for the full range of barriers that may interfere with a woman's ability to make free, informed, and voluntary decisions about her reproductive health and behaviour, including contraceptive use. Through this lens, spousal violence is a strategy for enabling disempowered women to gain some control over one aspect of their lives (Gilles, 2015). In most Asian countries, human rights in the health sector are challenging despite invoking different international commitments (Arrow, 2011; Abrahms et al., 2004). Globally, policies such as CEDAW-1979, UN general assembly-1993, Beijing conference-1995, prevention and eradication of VAW and children-1997, and domestic violence bill of 2006 have focused on eradicating gender-

based violence (GBV) (Mukanangana, 2014). Nepal is a developing country with a high prevalence of spousal violence, lower fertility, and a lower population growth rate. From the government level, it has taken several steps to address gender-based violence, focusing on spousal violence. The Constitution of Nepal also has a separate article on the rights of women (article 38), which protects women against physical, mental, sexual, and psychological or any other forms of violence as a fundamental right with penalties for perpetrators and compensations for victims. Nepal is also party to the UN CEDAW (1981) and its optional Protocol (1999), accepting the individual complaint procedure.

Similarly, the safe motherhood and RH right Acts (2018), National Penal code act (2019) (particularly for the protection of rape victims), domestic violence crime and punishment act 2015, and laws about gender-based violence (abortion law) are actively put on regulations and policies/programs (Social Science Baha, 2021; Nepal Law Commission). Marital rape is considered in the chapter on sexual offences, wherein the husband would be liable to imprisonment of up to 5 years, and the country civil code act 2017 also provides for marital rape as one of the grounds for divorce (Nepal Law Commission). In Nepal, several hospitals have set up one-stop crisis management centres (OCMCs) to support the victims of violence. Likewise, community service centres, childcare homes, and rehabilitation centres have been established nationwide for victims of violence (Social Science Baha, 2021).

Nepal Demographic and Health Survey (NDHS) data of Nepal shows that rural area is one step back in the improvement of all reproductive health components, including spousal violence, than urban areas. Since 2011, Nepal has included the domestic violence module and spousal violence. Overall, Nepal's data showed that women who experienced spousal violence declined from 32 percent in 2011 to 26 percent in 2016, but this decline is due to declines in emotional violence and sexual violence only. Similarly, a national report also showed that more than half (66%) of sexual violence experienced women have not sought help or talked with anyone about resisting or stopping the experienced violence (Ministry of Health and Population, 2016). Therefore research has tried to explore the association between spousal violence and reproductive health outcomes. This paper aims to explore the significant differences between spousal violence experienced and non-experienced rural women in the components of different background characteristics of respondents and their husbands (socio-demographic) as well as reproductive health components (Family planning, infant death, and pregnancy losses). Another objective is to do an in-depth analysis of pregnancy loss of currently married respondents who experienced spousal violence.

METHODS

The data is based on Nepal Demographic and Health Survey (NDHS), 2016, publicly available dataset from the measures DHS website. A national-level study on spousal violence was conducted in 2011 for the first time by the Ministry of Health and Population (MoHP), Nepal demographic and health survey 2011 (MoHP, 2012). To explore the national level scenario, this study has used the NDHS, 2016 data which was secondly published on GBV issues at the national Level. In total, 1625 rural women were selected for the domestic violence module in NDHS; among them, 1389 were currently married women. Of 1389

currently married women, 351 had experienced any physical, sexual, or emotional violence, and the rest of the others (1038) were not experienced any form of violence. The 2016 NDHS sample was stratified and selected in two stages in rural areas and three stages in urban areas. In rural areas, wards were selected as primary sampling units, and households were selected from the sample primary sampling unit (PSUs). Here, any form of violence includes three types which are physical spousal violence, sexual spousal violence, and emotional spousal violence. The category included in this violence was:

1. Physical spousal violence: push you, shake you, or throw something at you; slap you; twist your arm or pull your hair; punch you with his/her fist or with something that could hurt you; kick you, drag you, or beat you up; try to choke you or burn you on purpose; or threaten or attack you with a knife, gun, or any other weapon.
2. Sexual spousal violence: physically forces you to have sexual intercourse with him even when you did not want to; physically force you to perform any other sexual acts you did not want to; force you with threats or in any other way to perform sexual acts you did not want to
3. Emotional spousal violence: say or do something to humiliate you in front of others; threaten to hurt or harm you or someone close to you; insult you or make you feel bad about yourself

In the first stage, this study compared the background characteristics of both SV experienced (n=351) and non-experienced women (n=1038) by splitting a dataset. After identifying the poor performance of SV experienced women, further analysis is limited to only 351 currently married women who experienced spousal violence in rural Nepal. The dependent variable, pregnancy loss includes abortion (spontaneous or induced), and stillbirth. Various background characteristics such as age, level of education, husband's level of education, consumption of alcohol by husband, ever using emergency contraception, unwanted child, still births, infant deaths, current pregnancy status, current use of family planning, knowledge of family planning, attitude regarding wife beating were examined descriptively to assess the violence experienced women's knowledge, practice and overall status. Subsequently, research identified pregnancy loss as a dependent variable and explored the association with other background independent variables by using chi-square test and logistic regression analysis.

RESULTS

This data is based on currently married women. In Nepal, 25.3 percent of married women experienced physical or sexual or emotional violence by their husbands, while 26.7 percent experienced physical or sexual or emotional violence in ever-married women. In urban areas, the percentage of spousal violence experienced by women is slightly less (25%) than in rural areas (28%). In data, pregnancy loss includes abortion (spontaneous or induced) and stillbirth. This study has tried to compare the background characteristics of spousal violence between experienced and non-experienced women and to investigate the extent of the association of spousal violence experienced women with pregnancy loss and induced abortion.

More than half of the spousal violence experienced women (57%) were aged 20-34 years, and very few women (5.1%) were aged before 20. Comparatively, the no schooling percentage was considerably higher among spousal violence experienced women (62%) than non-SV experienced women (45%). Likewise, consumption of alcohol by respondents' husbands was also higher (63.5%) in spousal violence experienced women, whereas less than half (43.2%) of non-spousal violence experienced women's husbands consumed alcohol. Data also show a high number of pregnancies lost (32.2%) among spousal violence experienced women than non-experienced women (26.3%). Those respondents' who experienced spousal violence had high stillbirth (2%), while the proportion of non-experienced women were less than one (0.9%). Out of spousal violence experienced women, 4.3 percent women were abused by their husbands in using the FP method. Likewise, more than a tenth (10.8%) were abused for not bearing a son, and some were pressured to force abortion (3.7%) by their husbands. Data also showed out of 351 women, two third (39.9%) of them experienced severe physical violence. Further, it depicted that less severe physical is high (84.3%) than sexual violence (27.6%) only; in other words, physical violence is common among those women who experienced any form of spousal violence (Table 1).

Table 1: Background characteristics of rural women who did not experience any types of spousal violence and were undergoing any type (physical and or sexual and or emotional) of spousal violence and during their lifetime

General Background	Respondents (experienced SV) (N=351)	Respondents (not experienced any SV) (n=1038)
Age group	N (%)	
15-19 years	18(5.1)	77(7.4)
20-34 years	199(56.7)	598 (57.6)
35 years and above	134(38.2)	363(35.0)
Mean age (range)	32.15 (16-49 years) SD=8.24	31.1 (15-49) SD=8.6
Level of education		
No schooling	219(62.4)	469 (45.2)
Primary	65(18.5)	192 (18.5)
Secondary	50(14.2)	221 (21.3)
SEE and above	17(4.8)	156 (15.0)
Husbands' Level of education		
No schooling	101(28.8)	153 (14.7)
Primary	107(30.5)	282 (27.2)

Secondary	117(33.3)	319 (30.7)
SEE and above	26(7.4)	282 (27.2)
Consumption of alcohol by respondents' husband		
No	128 (36.5)	590 (56.8)
Yes	223 (63.5)	448 (43.2)
Ever use Emergency Contraception (EC)	**3 (0.9)**	**4 (0.4)**
Unwanted last child (n=164 for SV experienced women and n=495 for non-experienced women) who had at least a child)	43(26.2)	88 (17.8)
Number of pregnancy loses		
None	238(67.8)	765 (73.7)
1	79(22.5)	193 (18.6)
2	26(7.4)	59 (5.7)
3	8(2.3)	21(2.0) range 3-7
Occurred stillbirths	7(2.0)	9 (0.9)
Occurring infant deaths	8(2.3)	21 (2.0)
Currently Pregnant	22(6.3)	61 (5.9)
Abused of using the FP method	15(4.3)	
Abused for not bearing a son	38(10.8)	
Pressurized for forced abortion	13(3.7)	
Experienced any sexual violence	97(27.6)	
Experienced any less severe physical violence	296(84.3)	
Experienced any severe physical violence	140(39.9)	
Total (N)	**351**	

Source: NDHS, 2016

On the one hand, nearly 1 in 3 women are facing spousal violence in Nepal, and on the other hand, women who face spousal violence had rooted in our taboos, sociocultural norms, and patriarchal values. Data depicted that still, violence experienced women agreed on attitude associated with wife beating. Out of 351 spousal violence experienced women, 40 percent (140 women) agreed with justification statements regarding wife beating (table not shown). Similarly, 1 in 3 women (33%) agreed with a wife-beating if she neglects the children.

Likewise, more than a tenth (13%) agreed a wife-beating if she argued with her husband. It hints that debate and discussion between husband and wife have a high chance of creating spousal violence regardless of their education, income, and occupational levels. Not only individual activities but domestic chores are also justified in wife beating, such as 7 percent of women accepted beating a wife if she burns the food (Table 2).

Table 2: Distribution of violence experienced by women on Positive attitude regarding wife beating related statements (N=351)

Agreed percentage on wife beating	N	%
Beating is justified if the wife goes out without telling the husband	60	17.1
Beating is justified if the wife neglects the children	117	33.3
Beating is justified if the wife argues with the husband	46	13.1
Beating is justified if the wife refuses to have sex with the husband	13	3.7
Beating is justified if the wife burns the food	25	7.1

Source: NDHS, 2016

After the result of the split data by spousal violence experienced and non-experienced women, associations, were limited only to SV experienced women (N= 351 women). Regarding the association with other variables, the researcher picked two significant dependent variables, pregnancy losses (either through stillbirth), or induced abortion, based on the background split results. More than one-third of spousal violence experienced women who were aged 20-34 years had the highest pregnancy losses (33.7%), including higher induced abortion (9%) than other ages, and it was significantly associated (p=0.008). Additionally, results also depict the unfortunate scenario that more than two-fifth (22.2%) who were aged below 20 years had pregnancy losses and this age group had no induced abortion. It showed that below 20 years, women had pregnancy losses without induced abortion and the reasons behind it were immaturity and spousal violence.

Similarly, with an increasing level of education, the percentage of pregnancy losses also gradually increases up to the secondary Level (38%) and declines in SEE and above (29.4%). It showed that unwanted pregnancy increased spousal violence experienced women regardless of their Level of education; consequently, they wanted to induce abortion and lost their pregnancy. Data showed similar features of women's education in induced abortion with husbands' education and depicted the highest induced abortion in SEE and above (19.2%), and it was followed by secondary Level (6%), and it was statistically significant (p=0.01). Regarding the consumption of alcohol, data gives equal contribution in pregnancy loss (32%) and induced abortion (6%) between alcohol consumers and non-consumers, although the number of violence experienced women whose husbands were alcohol users (238 numbers) was nearly two times higher (Table 3).

Likewise, those respondents who had pressurized for forced abortion had higher pregnancy losses (53.8%) than others (31.4%). The result showed the same scenario in the case of

induced abortion. Respondents who had pressurized for forced abortion had higher induced abortion (23.1%) than those who did not pressurize for induced abortion (5%), which was statistically significant. Likewise, those women who were abused for not bearing a son had higher pregnancy losses (40%) than non-abused women (31%), and induced abortion data depicted the same scenario and was higher (13%) among women who were abused for not bearing a son than non-abused women (5%). Women who had infant deaths had higher pregnancy losses (38% vs 32%) than others, and in the case of induced abortion, none of the women who occurred from infant deaths did induce abortion. Regarding the last pregnancy, women who wanted their last pregnancy had higher pregnancy loss (40%), while induced abortion was higher in those women who had an unwanted child in their last pregnancy. Respondents who experienced sexual violence had higher pregnancy losses (41.2%). Similarly, those who experienced any severe violence also had more pregnancy losses (38.6%) than less severe violence (30%) (Table 3).

Table 3: Background characteristics, pregnancy loss, and induced abortion of ever-experienced spousal violence women in rural Nepal (N=351)

Background characteristics	Pregnancy loss (n=113, 32.2%)	P value	Induced abortion (n=20, 5.7%)	P value
Age group		0.588		0.008
15-19 years	22.2 (n=18)		0.0 (n=18)	
20-34 years	33.7 (n=199)		9.0 (n=199)	
35 years and above	31.3 (n=134)		1.5 (n=134)	
Mean age (range)	**32.15 year (Range: 16-49 years)**			
Level of education		0.760		0.367
No schooling	30.6(n=219)		4.1 (n=219)	
Primary	33.8 (n=65)		7.7 (n=65)	
Secondary	38.0 (n=50)		8.0 (n=50)	
SEE and above	29.4 (n=17)		11.8 (n=17)	
Husbands' Level of education		0.838		0.017
No schooling	33.7 (n=101)		4.0 (n=101)	
Primary	29.0 (n=107)		3.7 (n=107)	
Secondary	34.2 (n=117)		6.0 (n=117)	
SEE and above	30.8 (n=26)		19.2 (n=26)	
Consumption of alcohol by respondents' husbands		0.961		0.888

No	32.0 (n=128)		5.5 (n=128)	
Yes	32.3 (n=223)		5.8 (n=223)	
Pressurized for forced abortion		0.089		0.006
No	31.4 (n=338)		5.0 (n=338)	
Yes	53.8 (n=13)		23.1 (n=13)	
Abused for not bearing a son		0.309		
No	31.3 (n=313)		4.8 (n=313)	
Yes	39.5 (38)		13.2 (n=38)	
Abused of using FP method		0.640		0.869
No	32.4 (336)		5.7 (n=336)	
Yes	26.7 (15)		6.7 (n=15)	
Occurred infant deaths		0.656		0.781
No	32.1 (343)		5.8 (n=343)	
Yes	37.5 (8)		0 (n=8)	
Wanted the last child		0.236		0.176
Wanted then	39.7 (212)		8.3 (n=121)	
Wanted later	22.2 (18)		0 (n=18)	
Wanted no more	28.0 (25)		16.4 (n=25)	
Experienced any sexual violence		0.025		0.203
No	28.7 (n=254)		4.7 (n=254)	
Yes	41.2 (n=97)		8.2 (n=97)	
Experienced any severe violence		0.037		0.646
No	28.0 (n=211)		6.2 (n=211)	
Yes	38.6 (n=140)		5.0 (n=140)	
Experienced any less severe violence		0.096		0.237
No	41.8 (n=55)		9.1 (n=55)	
Yes	30.4 (n=296)		5.1 (n=296)	

Source: NDHS, 2016

Overall data showed a higher percentage of pregnancy losses was found in violence experienced women than in normal women. Results also showed that a higher percentage of pregnancy loss was found from sexual violence experienced by women (41%), and it was followed by women who experienced severe physical violence (39%). All physical and less severe physical violence experienced by women had less (30% both) percentage of pregnancy loss than other forms of violence experienced by women. More specifically, sexual and severe physical violence and pregnancy loss were higher and statistically significant at 0.05 (Table 4).

Table 4: Distribution of women based on the status of pregnancy loss by types of spousal violence

Types of spousal violence based on women experienced	**Status of Pregnancy Loss**		**Total (N)**	**P-value**
	Yes	No		
	n (%)	n (%)		
Physical	91 (30.4)	208 (69.6)	299	0.249
Sexual	40(41.2)	57(58.8)	97	0.002
Emotional	55 (32.5)	114 (67.5)	169	0.141
Less severe physical	90 (30.4)	206 (69.6)	296	0.257
Severe physical	54 (38.6)	86 (61.4)	140	0.003
At least one form of violence	113 (32.2)	238 (67.8)	351	0.033
Total (N)	**386 (27.8)**	**1003 (72.2)**	**1389**	

Source: NDHS, 2016

To depict the effect of the association between different types of spousal violence and pregnancy losses in rural Nepal by using binary logistic regression analysis. Women who experienced at least one form of physical and severe physical violence were statistically significant at 0.05. Physical violence experienced women had 0.4 times less likely to occur pregnancy loss with reference non-physical violence experienced women. Regarding sexual violence, pregnancy losses were 1.4 times more likely to experience sexual violence experienced by women at a 95 percent Confidence Interval (CI) (0.829, 2.336), although it was not statistically significant. Women who experienced severe physical violence had 2.1 times more likely to occur pregnancy loss (CI= 1.190, 3.532) with a statistically significant (p=0.01). Likewise, women experienced at least one form of violence also had more than 2 times more likely to occur pregnancy losses with reference to none of the violence experienced by women (95% CI =1.050-4.253) and it was significantly associated at 0.05 level (Table 5).

Table 5: Association between pregnancy losses and different types of spousal violence by using binary logistic regression analysis (N=1389)

Types of spousal violence	Category	Odd Ratio	95 % confidence interval (CI)	Significance value (p-value)
Physical	No	1		
	Yes	0.4	0.204-0.848	0.01
Sexual	No	1		
	Yes	1.4	0.829-2.336	0.21
Emotional	No	1		
	Yes	0.8	0.475-1.255	0.29
Severe physical	No	1		
	Yes	2.1	1.190-3.532	0.01
At least one form of violence	No	1		
	Yes	2.1	1.050-4.253	0.03

Source: NDHS, 2016

DISCUSSION

Fragmented data findings showed that in almost all background characteristics of spousal violence experienced women had a higher percentage of no schooling, consumption of alcohol, non-using modern method of contraception, number of unwanted last-child, pregnancy losses, number of stillbirths, and number of infant deaths than spousal violence non-experienced women. Pressurized for forced abortion, pressurized for not bearing a son, the number of infant deaths, experienced sexual violence, and severe violence is directly associated with pregnancy losses and induced abortion. Studies found that pregnancy loss was significantly associated with having experienced physical and sexual intimate partner violence. (Stockl et al., 2012; United Nations Human Rights, 2020). It was also found that prior abortion was significantly higher in abused women than in other women (Thakuri et al., 2020; Pallitto & O'Campo, 2004). While in Nepal, abortion is the third leading cause of maternal death despite the implementation of safe abortion policy since 2002 (Thakuri et al., 2020; MoHP, 2016). It is also found that unintended pregnancy and induced abortion are more common in violence experienced by women in nearly all settings.

Reproductive health care is one of the women's priority areas besides education and income. This analysis showed that many women in Nepal are facing reproductive health issues, including pregnancy loss and induced abortion. Prevalence of such cases is higher in spousal violence experienced women than in non-spousal violence experienced women. Literature found that most of the respondents who experienced spousal violence were young adults (25-39 years (71%), and it was followed by youth (15-24 years). A qualitative study also stated

that physical abuse is more common among women who are not educated, and ignorance of the grievance procedures might be a factor underlying their abuse (Mukanangana, 2014). A study done in the USA found that women who experienced spousal violence had three times the risk of gynaecological problems than those who experienced non-spousal violence (WHO, 2002). Likewise, reproductive control is highly prevalent in an abusive relationship.

This study found that women who experienced sexual violence had more than two-fifth (41%) of pregnancy losses which was the highest percentage of pregnancy losses than other forms of violence. While physical violence is higher than sexual violence because of the lack of knowledge on reporting and feeling shyness and humiliation, they feel very improper to report or mention the case. The literature said that culturally reporting on sexual violence or rape of married women is against the cultural expectation and to report spousal rape is tantamount to exposing their failure in sexual obligation. Similarly, sexual violence brought reproductive health impacts like unwanted pregnancy, pregnancy losses, urinary tract infection, and psychological trauma (Mukanangana, 2014). A study in Bangladesh found that women who experienced lifetime spousal physical or sexual violence or both were significantly more likely to report poor or very poor health (AOR 1.7) and reported problems in walking, pain, and vaginal discharge (Johnston & Naved, 2008).

This study's findings showed positive attitudes regarding wife beating; some of the wives still accept wife-beating statements. Nepal's patriarchal system helps protect against spousal violence, men tend to have higher control over women in every sphere, and another study in Nepal also found that nearly half (44%) of men agreed that women deserve to be beaten. Similarly, 21 percent of men believe in beating spouses in refusing to have sex on demands (Thakuri et al., 2020). Like Nepal, in South Sudan, wife-beating is common because of their customs and traditions; for example, the wife's indiscipline might include the wife's refusal to cook for her husband, insulting him, and abstaining from congealing relations (Edward, 2014). Not only wife beating, but unintended pregnancy is also prevalent in the patriarchal system, a community-based study which was conducted in Colombia found that unintended pregnancy was significantly associated with women who were living in a higher patriarchal community and with a high rate of spousal violence (Pallitto & O'Campo, 2004).

Regarding induced abortion and pregnancy loss, the findings of this study showed a positive association with spousal violence. Likewise, most of the literature found a strong relationship between induced abortion and pregnancy loss with spousal violence. Though the percentage is not much high in this data, there may be other influencing sociocultural variables. The literature said that because of cultural factors and legal and religious sanctions, most women do not want to report induced abortion and want to include it in pregnancy loss only so that there may be under-reporting of induced abortion. Likewise, the sensitivity of the subject (spousal violence), social stigma, and participants' privacy, and safety concerns, spousal violence is a hidden issue (Stockl et al., 2012; Pallitto & O'Campo, 2004). On the one hand, induced abortion is a consequence of spousal violence; on the other hand, it is also a cause or leading factor of spousal violence.

A study from the US found that women who experience violence are more likely to experience reproductive coercion, forced by the male partner to get pregnant, undergo sterilization, and seek an abortion (Chibber & Krishnan, 2011). Other studies found that community-level stigma and fear, spousal violence abused women could not control their fertility and had a risk of unintended pregnancy and pregnancy losses (Pallitto & O' Campo, 2004). Not only reproductive and maternal health but spousal violence also affects child health. Spousal violence is directly associated with adverse long-term reproductive, maternal, and child health outcomes. A US study found that average health care cost is significantly higher for violence-experienced women than non-experienced women (Chibber & Krishnan, 2011).

Results displayed that an overwhelming majority of the spousal violence experienced women had no education (62%) than non-violence experienced women (45%). Educational attainment is an influencing factor in spousal violence. Spousal violence-related literature found that female empowerment helps to protect against spousal violence and power can be derived from numerous sources such as Level of education, income, and role of community. Societies with patriarchal norms have more spousal violence and social support is another source of empowering women, places where existed social support to women, they can stay without spousal violence (Jewkes, 2002; WHO, 2012; WHO, 2005). Another study found that spousal physical violence is inversely correlated with women's Level of education and pregnant women had other impacts like stillbirths, premature labour, and miscarriage (Edward, 2014). A study conducted in India found that poorer families, low levels of education, and Muslim communities had a higher prevalence of spousal violence. Likewise, emotional and sexual spousal violence was relatively uncommon, and it may be underreported (Das et al., 2013). Studies also found that women who experienced physical abuse during pregnancy had twice the risk of miscarriage and four times the risk of low-birth-weight babies (Edward, 2014).

The percentage of spousal violence experienced women whose husbands were alcohol consumption is higher though it was not statistically significant. Most of the literature found that alcohol consumption/ heavy alcohol use is associated with spousal violence through biological links between alcohol and violence are complex. Research related to anthropology suggested that the linkage between violence and drinking is socially learned and not universal and alcohol may act as a cultural time out for anti-social behaviour (Jewkes, 2002; Das et al., 2013). The presence of regional variation indicates the heterogeneousness of rural Nepalese societies and the need to consider the cultural differences which were not controlled in this analysis.

CONCLUSION

From the reproductive health perspective, spousal violence is essential to incorporate into reproductive and maternal health perspectives for delivering quality, inclusive and sustainable health services and to grasp zero violence. Spousal violence causes a broad range of health effects. Studies show that there is a significant difference between spousal violence experienced and non-experienced women in the components of essential background characteristics such as Level of education, consumption of alcohol, and reproductive health

components, the status of induced abortion and pregnancies loss and infant deaths as well. Additionally, a higher level of education contributes to higher pregnancy losses and induced abortion and on the other hand, modern methods of family planning users are comparatively less among higher educated women. Therefore, further family planning, pregnancy, and abortion-related programs-, should be focused on sexual violence experienced women. Likewise, with the higher percentage of uneducated spousal violence experienced women in rural areas, women's education helps to change the social attitudes and perceptions of spousal violence. Likewise, research and related programs on reproductive health and spousal violence should equally focus on young women and married men who are prime responsible for spousal violence. Moreover, the government should focus on comprehensive reproductive health services with counselling and referral packages. Besides these findings, still in Nepal, most women do not want to disclose induced abortion because of the social stigma and cultural taboos, so it may not give an accurate scenario in rural Nepal. Further study should focus on a qualitative approach, including in-depth and exploratory analyses in rural Nepal.

ETHICAL STATEMENT

The study protocol was approved by the Nepal Health Research Council (NHRC) and the ICF Macro Institutional Review Board in Calverton, Maryland, USA. All respondents had provided verbally informed consent prior to NDHS data collection. Therefore, independent ethical approval was not required.

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