Prevalence and the multitude of risk factors for sexual violence of young wives: evidence from rural Nepal

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Abstract

This paper examines the extent and determinants of sexual violence among young married women in rural Nepal. A cross-sectional survey was conducted among 1,296 married women aged 15-24 years in four major ethnic groups. About 46% of the women surveyed had ever experienced sexual violence since marriage. Several individual and household level factors including increased women's autonomy were protective against sexual violence. Surprisingly, women's higher level of education was not a protecting factor. However, educational level of husbands both at the individual and community level was highly protective. Overall, the community factors were less important than individual or family factors in explaining the risk of young women experiencing sexual violence by the husbands. The high prevalence of sexual violence against women found in this study is a matter for serious concern and underscores the need for an integrated and comprehensive response at many levels.

Background

Sexual violence against women (SVW) is increasingly being recognized as a global public health problem and a violation of human rights[1.] There is increasing evidence that SVW is associated with a range of socio-psychological, gynecological and reproductive health problems, including HIV and other sexually transmitted infections (STIs), unwanted pregnancy, vaginal bleeding or infection, fibroids, decreased sexual desire, genital irritation, pain during intercourse, chronic pelvic pain and urinary tract infections[2-5]. Despite this myriad of adverse outcomes, few studies on intimate partner violence have been conducted in developing countries, particularly in South Asia. The experiences of young married women in particular remain largely unexplored. Though limited, research in developing countries suggests that between 2% and 48% of young women have experienced coerced sex within a formal marriage[6-14]. The World Health Organisation's multi-country study on domestic violence also found that between 4% and 57% of ever-partnered 15-19 year old women had experienced sexual violence by an intimate partner at some point[7]. Studies conducted elsewhere in the world show that sexual violence occurs across continents and cultures[15].

There is no agreed conceptual framework for understanding sexual violence within marriage (SVWM). Attempts have been made to present a conceptual framework for understanding the determinations of domestic violence[15-16]. However, such attempts are nearly non-existent for sexual violence research, perhaps mainly due to the fact that studies both on the prevalence and risk factors for SVWM are still in the exploratory stage. That said, a conceptual framework for the determinants of sexual violence would likely to closely resemble one for physical violence,

though there are slight differences between the two types. Figure 1 presents a conceptual framework of risk factors for SVWM. It is recognised that the proposed framework has not adequately covered all potential underlying factors that are linked to SVWM. The framework posits sexual violence as a function of some contextual and community factors, and household, individual and interpersonal factors. These domains overlap to a certain extent and reciprocally influence each other. This framework guided the study and the analysis of data.

Information from developing countries on factors underlying SVWM is sparse. The limited evidence available from India and Bangladesh identified several risk factors for sexual violence within marriage among young women. An early and arranged marriage, lack of information on sexual matters, powerlessness and inability to exercise sexual and reproductive rights, unequal gender norms and lack of alternative support systems increases the vulnerability of young married women to coercive sex[17-23]. Limited evidence available from Bangladesh, India and Nepal suggests that women who marry after age 20 years are somewhat less likely to report coercive sexual experiences than are women who marry before age 20[8, 21, 24]. Studies of early marital sexual relations suggest that the lack of awareness of sexual matters compounds a bride's lack of preparedness for sex and contributes to reported traumatic experiences associated with first sex[21- 24].

Figure 1 about here

Several studies from developing countries have reported that alcohol consumption by men play a significant precipitating role in domestic violence[25-27]. However, evidence on the relationship between alcohol use by husband and SVWM is limited. A study from Uganda showed that women whose partners consumed alcohol faced almost a four-fold increased risk of physical

violence and sexual violence relative to women whose partners did not consume alcohol[13]. Another study from South India found that expenditure on alcohol was a significant factor risk factor for domestic violence[28].

Empirical evidence on the broader contextual and community-level factors in shaping the risk of SVWM are even sparser. A study conducted in Bangladesh showed that the effects of women's status on violence found to be context specific. In the more culturally conservative area, higher individual women's autonomy and short- term membership in savings and credit groups were both associated with significantly elevated risks of violence and community-level were unrelated to violence. In the less culturally conservative area, in contrast, individual-level women's status indicators unrelated to the risk of violence, and community-level measures of women's status were associated with significantly lower risk of violence[16]. Another study conducted in four States of India showed no statistically significant association between women's status and sexual violence among young women. Whether or not improvements in women's status and autonomy contribute to reductions in sexual violence thus remains an unresolved research question[11].

Using cross-sectional survey data, this paper examines the various factors outlined in the conceptual framework as risk factors for sexual violence. More specifically, we examine whether women's autonomy, level of education, inter-spousal communication, family support, traditional cultural practices (early and arranged marriage) and selected men's characteristics (alcohol use, multiple partners, education, occupation etc) are associated with SVWM. In addition, the analysis expands existing analytical frameworks by incorporating some community level indicators in addition to individual and family-level factors for SVWM.

Context

Nepal is a small, predominately hilly and mountainous, land-locked country bordering with the People's Republic of China in the north and India in the east, south and west. The country has diverse cultures, climates, traditions and languages. A large percentage of the population (86%**)** lives in rural areas, with limited or no access to basic infrastructure or services[29]

The country has a predominantly patriarchal society with most women having little or no decision making power in their marriage, sexuality and fertility regulation. Despite laws stipulating the legal age of marriage to be 18 years with the consent of guardians and 20 years without the consent of guardians, early marriage continues to be the norm in many ethnic groups. For example, the median age at first marriage among women aged 20-49 is 17.2 years[30]. This results in sexual activity commencing at a relatively early age, particularly for women. Moreover, communication between a young women and her husband on matters related to sexuality is rare. Nepali women are shy and introvert on matters related sex. Husbands generally see no problem in exercising some force for sex. Sex education in the school and counselling service related to sex and sexuality are still taboo subjects and not reaching those who need them. Moreover, many women in Nepal hold the view that it was in their *dharma* (defined as religion, moral duty and universal law) to be obedient, respectful and pleasing to their husbands[31-32].

Acknowledging the problems of SVWM in the country, in 2009, the Government of Nepal passed a comprehensive law on gender-based violence which made it a criminal offence for a husband to have forced sex with his wife. The new law has made a provision of fine to imprisonment for three to six months depending on the type of sexual violence[33]. In practice, however, this law is not enforced strictly. Moreover, a large majority of Nepalese people,

including local authorities, local police and other agencies that deal with gender-based violence, are still unaware of its existence.

This paper aims to contribute to the limited body of population-based evidence on the prevalence and risk factors of SVWM among young married women in developing countries and also inform policies and programs in Nepal. No previous well designed quantitative study is known to have been undertaken on this topic and thus the results represent a first step towards understanding the prevalence and factors associated with SVWM among young married women in Nepal.

Data and analytical methods

Data for this paper come from a cross-sectional survey, carried out in four districts - Dolkha, Sindhupalchowk, Dang and Kapilvastu of Nepal by the Centre for Research on Environment Health and Population Activities (CREHPA) in 2009. These districts were selected to represent four main ethnicities with two from the hill (Brahmin/Chhetri and Tamang) and two from the *Terai* or plains (Tharu and Muslims); these regions also represent geographic variation and the level of socio-economic development and cultural diversity of the country. The Brahmin/Chhetri is the largest group (28.5% of the total population) distributed all over the country. The Brahmin/Chhetri is one of the most advantaged ethnic communities in Nepal. They follow the Hindu religion and speak Nepali, the national language of Nepal[29]. The Tharus comprise about 7 per cent of the population and are one of the oldest ethnic groups of the Terai. Compared to Brahmin/Chhetri, Tharus are one of the most disadvantaged ethnic groups in Nepal. They follow the Hindu religion[34]. The Tamang comprise about 6 per cent of the total population and is one of the indigenous communities in Nepal. They have their own distinct language, culture, social

system and religion which are different from mainstream Hinduism. Constituting 4.3 per cent of the total population, Muslims are one of the religious minority and Terai ethnic groups in Nepal. The majority of Muslims live in the plain areas bordering with India and speak the *Abhadhi* language[29].

The survey interviewed 1,296 married women aged between 15 and 24 years by using a two-stage systematic random sampling technique. In the first stage, 48 clusters in the selected districts were chosen using population proportionate to size (PPS) sampling technique. In the second stage, sample households were selected from the sampled clusters. Before selection, list of households were updated with the help of community leaders. The list served as sampling frame for selecting households. A systematic random sampling technique was applied to the list to select predetermined number of households from each cluster, i.e. 27 households. After selecting a house, a short screening questionnaire was administered to the heads of the households in order to identify eligible respondents. A total of 5,080 households were visited to identify eligible participants. Although all the eligible respondents (a total of 1,811 married women aged 15-24 years) were identified in the households visited, the desired sample sizes for the study i.e. 1,296 were selected using systematic random sample technique and interviewed. Only respondents who gave informed consent to participate in the study were included in the study. In the case of non-availability of eligible respondents, interviews were terminated after completing a short screening questionnaire. In households with more than one eligible respondent, one respondent was selected randomly for interview. Interviews were conducted individually at a convenient location for the respondents, usually away from their homes, by well trained Nepali female interviewers. On average, each face-to-face interview took about 60

minutes. During the field study, two authors visited the study sites and supervised the interviewers to assure interview quality and the respondent's privacy.

A structured questionnaire was used for the face-to face individual interviews. The format as well as the questions were based on the WHO Multi-country Study on Women's Health and Domestic Violence against Women, but were adapted to the local setting and study population. The questionnaire was first developed in English then translated into Nepali. It was pre-tested among similar population subgroups outside the selected study areas and necessary modifications were made. The questionnaire comprised 10 parts: demographic and socio-economic background, fertility and contraceptive use, husband background, attitude towards sexual relationship, spousal communication and negotiation on sexual matters, domestic violence, non-consensual sex, coping strategies, consequences and decision making.

None of the respondents eligible for the study refused to be interviewed. Quality of our data were assessed by comparing some key indicators such as age and sex composition of the household population, average household size, literacy status and number of living children with the Nepal Demographic Health Survey 2006 and no significant differences was found between them.

The core protocol and research instruments were approved by the Nepal Health Research Council (the Nepal government's ethical approval agency) and World Health Organization's (WHO) Research Ethics Review Committees (ERC). Participants involved in the study were fully informed about the nature of the study, research objectives, and confidentiality of the data. Participant's verbal consent was obtained regarding their participation in the study.

Confidentiality of information was ensured by removing personal identification from the data and by securing access to all data and information. Interviewers orally provided the name and address of organizations that deal with sexual violence and conflicts within marriage to all women. Moreover, if any respondent ever experienced violence and sought help (either required counseling or other services) then interviewers facilitated her to access an appropriate service facility or referred to the nearest health centre.

This paper adopted the WHO's definition of sexual violence, that is, "any sexual act, attempt to obtain sexual act, unwanted sexual comments or advances, or acts to traffic, or otherwise directed against a person's sexuality using coercion by any person regardless of their relationship to the victim in any setting including but not limited to home and work" [1].

The dependant variable in the multivariate analysis was whether or not the individual woman has reported any experience of sexual violence (SV) by the husband in the 12 months preceding the interview. The conceptual framework described above guided the selection of independent variables included in the model. At the individual level, apart from typical background characteristics (age, number of living children, occupation, education of both women and her husband), variables reflecting women's autonomy, involvement of community groups and exposure to mass media were considered. Also, variables reflecting young women's transition to marriage and sexual life indicated by age at marriage, type of marriage and knowledge about sex before marriage were included in the analysis. At the couple level, we included variable reflecting inter-spousal communications. At the family level, variables on household asset index

were included. At the community-level, women's autonomy (discussed further below), interpersonal communication, women's education and husband's education were included.

The coding categories of most of the variables included in the analysis are self explanatory. However, some of the variables were generated from the individual data. We constructed a variable to approximate women's autonomy by applying latent class analysis[35-36]. We considered women's autonomy as a latent variable because it is not directly observable and it is most appropriately measured through multiple observable manifest variables. The advantage of latent class analysis is that it probabilistically categorizes women into latent classes on the basis of the distribution of responses to the specified manifest variables. For our index of women's autonomy, we used 14 manifest variables reflecting three key dimensions of women's autonomy drawing from work by Jejeebhoy (2000) and Koenig (2003):autonomy/mobility, familial decision making power and control of resources[37, 13]. We used posterior probabilities of class membership in order to assign each woman a modal class[38]. Our analysis included three latent classes for women's autonomy. Women belonging to class 1 were most likely to be able to make their own decisions concerning allocation of household resources, contraception, medication, visits to their maternal family and group membership as well as being most likely to be able to communicate freely with their husbands on a variety of topics. Women belonging to class 2 are generally not involved with household decision making, except in terms of contraception and tend to have some restrictions on things like becoming a member in community groups, but they still do well in terms of communication and tend to be free to visit friends and family. Women in class 3 are the least likely to be involved with any kind of family decision making, even in terms of their own health; women in this group also feel less able to communicate with their husband.

Household wealth index variable was categorised as poorest (first quartile), poor (second quartile), middle (third quartile), rich (fourth quartile) and richest (fifth quartile). This variable was generated by using Principal Component Analysis (PCA) based on 13 indicators of household possessions[39-40]. Similarly, interposal communication variable was generated by using 8 questions related to interposal communications and has been categorised into none/low (no communication on any matters), medium (discussed on 1-3 matters) and high (discussed on 4 or more matters). The community-level variables were generated by taking the average of individual responses at the cluster level.

Due to the binary nature of our dependant variable (having either experienced or not the sexual violence), logistic regression was used. However, if one uses standard logistic regression when the data are clustered this will result in incorrect standard errors and thus make hypothesis testing impossible. Therefore, a multilevel model was used to account for the clustered nature of the data. We present both a binary logistic regression and a multilevel logistic regression wherein we introduce a random intercept in the linear predictor in order to account for the clustered nature of the data. The random intercept allows for unobserved heterogeneity within clusters. The model is specified thus:

$$logit\{Pr(y_{ij} = 1|x_{ij}, \varsigma_j)\} = \beta_1 + \beta_2 x_{2j} + \beta_3 x_{3ij} + \varsigma_j$$

This model includes covariates at the individual and household-level and also aggregate covariates at the cluster level. The cluster level variables were women's autonomy, per cent of women with any education, per cent of husband's with any education. These variables were

created from the individual level data. The education variables were the per cent of women or husbands in each cluster with any education.

Results

Background characteristics of respondents

One-third of respondents were aged below 20 years. The median age at marriage was 17 years and 70% had "arranged" marriage. Twenty-seven percent of women had no living children. About 29% of women had had no schooling, and 51% had completed 8 years of schooling. Nearly 80% were not working for money. A quarter of women were in the category of "low autonomy". Over half of women (57%) had no/rare exposure to the mass media. Thirty-seven percent of women were member of any kind of community groups. About half of the husbands were literate up to primary (53.6%) and nearly one-third had secondary or higher education (32.5%).

TABLE 1 ABOUT HERE

Prevalence and risk factors for SVWM

Overall 46% of the young married women surveyed had experienced sexual violence by their husband at some point and 31% had experienced sexual violence in the last 12 months. Bivariate analysis (chi square test for association) showed that the younger women were more likely to have experienced sexual violence in the last 12 months but there is no significant difference in

lifetime experience. This implies that sexual violence is more common at younger ages since for younger women the last 12 months will be the majority of their lifetime experience. Age at marriage was also particularly important with those who were married youngest being at most risk; almost 60% of those women married before 15 had experienced sexual violence at some point. That said, it may be due to the fact that women who married younger have had a longer period of exposure – the multivariate analysis will elucidate this issue more. However, the type of marriage made only a marginal difference with those in arranged marriage having a slightly higher lifetime experience than those in love marriages. Women with children were less likely to experience sexual violence in the last 12 months, particularly those with a living son. Knowledge of sexual matters prior to marriage made little difference to the experience of sexual violence.

TABLE 2 ABOUT HERE

Differences by educational level were substantial with illiterate women and women with illiterate husbands being most likely to have experienced sexual violence by their intimate partners both in the last 12 months and in the course of their lifetime. In line with this those women who do not earn cash income or employed in lower status jobs (agriculture, poultry, daily wage labour etc.) were most likely to experience sexual violence compared with those women who were involved in service or small business. Women with the lowest autonomy also experienced the highest levels of violence (42% verses 23% in the last 12 months).

No marked difference was found in ever experience of SVWM among the four ethnicities, though there was a slightly lower prevalence among Tamang. However, there was a statistically significant difference in the experience of recent sexual violence with the Tharu and Muslim

women being roughly twice as likely to have been subject to sexual violence in the last 12 months compared to Tamang or Brahmin/Chherti women.

Interestingly, the household wealth index indicated that women in the poorest households were actually less likely to have experienced sexual violence in the last 12 months though there was no discernible difference in lifetime experience. Social networks were also found to be important with women who could rely on support from their maternal family less likely to experience sexual violence at all and particularly in the past 12 months. In contrast, women who were a member of any community organisation/groups were marginally more likely to have experienced sexual violence especially in the last 12 months. Women who had no communication with her husbands on the family and personal matters were more likely to experience sexual violence than those who didn't any such issues.

TABLE 3 ABOUT HERE

In bivariate analysis, many characteristics of the woman's husband affected her likelihood of being exposed to sexual violence. Husband's educational level was protective and it is not surprising that husband's occupation is also related to sexual violence in a similar way with the highest prevalence being associated to husband with no employment or those who were daily wage labourer, while those whose husband were in service, business or foreign employment had the lowest incidence. Age of husband worked in the opposite direction to women's' with older husbands (over 35) most associated with sexual violence. Women with husbands who used drugs, often consumed alcohol and had multiple casual partners were unsurprisingly at greater risk of sexual violence.

TABLE 4 ABOUT HERE

Multivariate Analysis

The relationships observed in bivariate analysis were reassessed by using multivariate analysis to identify important determinants, adjusting for the confounding effects of other factors. In the multivariate analysis, we have considered risk factors of recent (in the last 12 month) experiences of SVWM. We present two different models – model 1 is a logistic regression, which includes just the household and individual-level indicators, while model 2 is a multilevel model including a more parsimonious version of the logistic regression and some community-level variables. Results are presented in Table 5.

In Model 1, women's occupation, age at marriage, household wealth index, level of exposure to mass media, membership in any community groups, and husband's drug use were not statistically significant. However, there are number of factors which emerged as significant with SVWM in the last 12 months. For example, younger women were more likely to have experienced SVWM. Women with older husbands (over 35) had increased the risk of SVWM. Similarly, Muslims women were significantly at higher risk compared with Brahmin/Chhetri women. In terms of education, at the individual level women were afforded no extra protection from a higher level of educational attainment. Women with education up to eight years of schooling appeared to have a slightly higher risk than those who were illiterate, but this was only marginally significant. It was, however, found that having a highly educated husband was protective against experience of SVWM; the odds of a woman with a husband educated to higher secondary level or above experiencing sexual violence were about 50% lower than for women whose husbands were illiterate or had no formal education. Similarly, husband's occupation did

not have much of an effect either though having a husband in foreign employment was found to be protective. This is because men in foreign employment are not physically close to their wives for as much time as others and have less opportunity to engage in sexual violence.

TABLE 5 ABOUT HERE

Being childless proved to be a significant risk factor with childless women having odds of experiencing sexual violence about one third higher than women with a child. Intriguingly, women who did not know about sexual matters before marriage actually had less chance of experiencing SVWM. The explanation for this is unclear and needs further exploration.

As expected, women's higher status was found to be significant and protective. Women in the lowest status class had odds of experiencing sexual violence over 90% higher than women in the highest status group. Inter-spousal communication was also found to be significant with high levels of communication being associated with much lower levels of violence (the odds were 80% lower for women with high communication compared to those with low communication). Women whose husbands had casual sexual partners or have more than one wife (as reported by women) were more than twice as likely as others to have experienced SVWM in the last 12 months.

Model 2 includes three community level variables – women's autonomy, per cent of women with any education, per cent of husbands with any education. We have excluded some variables from the second model that were included in the first due to the fact that they were found to be

insignificant; these were household wealth index, husband's drug use and membership of a women in any community organisation.

Overall a similar pattern emerged. However, some of the previously discussed individual and family-level effects get modified with the addition of community-level indicators. For example, the effect of husband's education and frequency of contact with maternal family were weakened.

The same pattern was echoed at the community level also; women living in communities with higher levels of women's education were not at lower risk from SVWM , but women living in communities with more highly educated men did experience a protective effect. A community level index of women's autonomy was also tested but found to be insignificant. This suggests women are not protected from sexual violence by having female neighbours with a high status. Therefore, each woman must have to elevate her status in order to protect her from sexual violence.

Discussion and conclusions

This study represents one of the first efforts of its kind to quantify the extent of SVWM among young married women in Nepal. Given the wide variability in sampling procedures, interview conditions and question wording, any comparison to other societies is difficult to make. However, the prevalence of SVWM among young married women in Nepal appears similar to those in other developing countries.

Many risk factors are also the similar. However, the analysis carried out in this paper has highlighted some new findings. It was found that women's education and occupation and household asset index were unrelated to SVWM. Furthermore, no evidence was found that community-level women's autonomy affects risk of SVWM, but an individual woman's autonomy was significantly associated with SVWM. The higher level of individual-level women's autonomy was associated with significantly lower risks of SVWM. The could be due to that women's greater overall mobility, decision making power and control of resources may reinforce or solidify nascent normative changes in gender relations and rules governing women's behavior within the family. These changes bring with them attendant changes in men's behavior vis-à-vis women, including the unquestioned right of husbands to resort to sexual violence with their wives[16]. Our study has also shown that women living in communities with higher levels of women's education were not at lower risk from SVWM, but women living in communities with more highly educated men did experience a protective effect.

Husband's education and inter-spousal communication were also statistically significant. This implies that one of the most important ways to curtail SVWM is to involve and educate men on the issues. Men need to be taught about rights and to respect their wives and learn to communicate with them. Aside from educating men on both preventing sexual violence and respecting women, it is important to continue to try and raise each woman's autonomy/status in order to reduce experience of SVWM. It was also found that Muslim women were at greater risk of SVWM compared with Brahmin/Chhetri. The explanation for this association is unclear and needs further exploration.

The increased risk of women to sexual violence when husbands are drunk is not a new finding. Several studies from developing countries have reported that alcohol use plays a significant

precipitating role in sexual violence[25,13,16,27,28]. This study supports the earlier findings. Therefore, any campaign against alcohol use should also cover the issue of sexual violence, among other issues. In addition, having co-wife/causal partners of husbands are important risk factors.

This study showed some surprising findings that need to be discussed. First, no significant association education was found between educational level of women and SVWM. One would expect that the higher level of education leads to higher level of women's autonomy that contributes in lower risks of SVWM. However, this was not in the case of our study population. Second, women having knowledge of sexual matters prior to marriage was a risk factor for women. This finding contradicts with the previous study[9]. We explored our data for other potential confounders such as those women know about sex may be more likely to report violence. However, we did not find any evidence on this in our data. Therefore, this issue requires further investigation.

This study has some limitation that should be acknowledged. First, we can not rule out the possibility of underreporting associated with respondent's reluctance to report highly sensitive experiences in our study. However, the data were collected by highly experienced interview teams by using carefully designed questionnaire. This led us to believe that the observed findings are unlikely to be attributable to differential levels of violence. Second, the cross-sectional nature of the data erodes our ability to establish temporality or causality in the many of the observed relationship. It is possible that the relationship work in the reverse direction that the outcomes are caused by unmeasured intermediate factors. In order to study the causes of sexual violence a panel study following women through the course of their marriage would be necessary.

These limitations notwithstanding, our analysis makes several new and important contributions to the literature on the determinants of SVWM in developing countries. First, it has identified a number of individual, households-level socioeconomic and interpersonal factors that are strongly predictive of the risk of SVWM. Second, it has reaffirmed the pivotal role of women's autonomy and SVWM. Third, it has shown that women's education play a less significant role than other individual, household and interpersonal-level characteristics in the case of sexual violence. Fourth, sexual violence being a very private issue, the community-level factors do not play an important role than individual or household level characteristics in Nepal. However, some of the critical interventions to enhance women's autonomy and rights, improving their economic status, and addressing gender norms and practices require community level efforts. As a priority program managers and policy makers must develop strategies that increases women's autonomy, involves men and educate them in gender issue and encourages them in inter-spousal communication.

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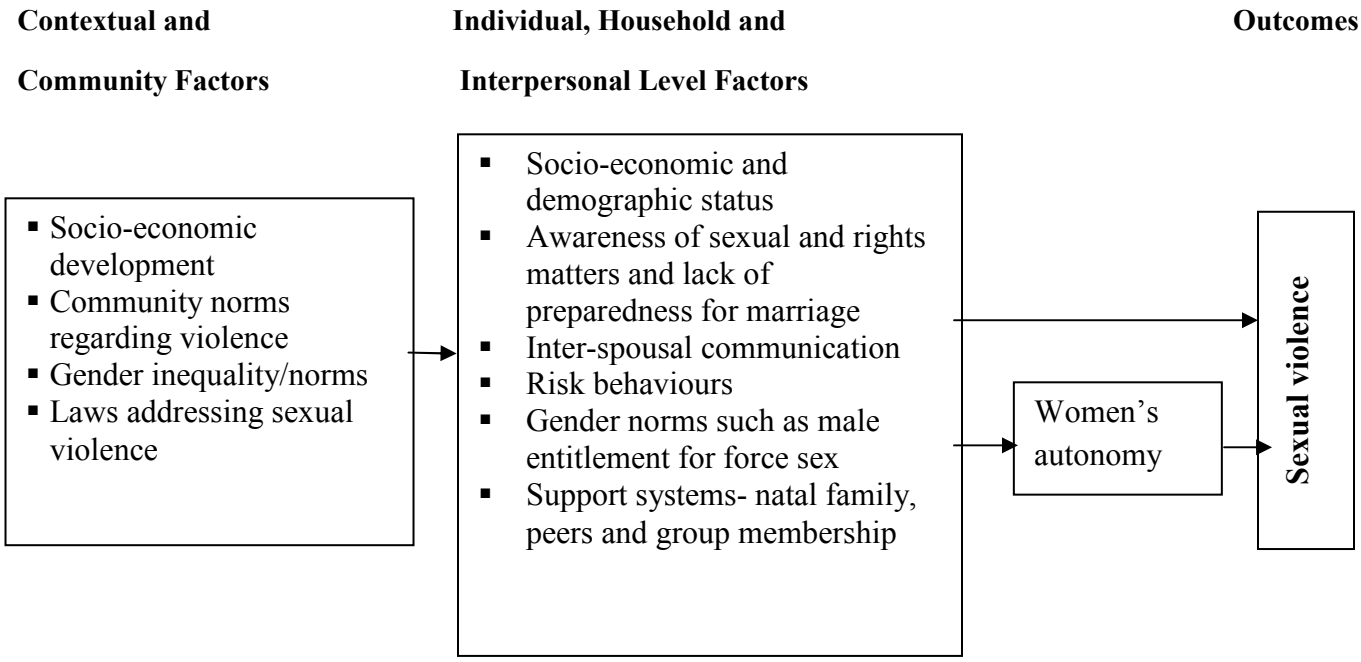
Figure 1: Conceptual framework for the determinants of sexual violence



Adopted from Koenig et al, 2003

Table 1. Distribution of young married women aged 15-24 years by selected background characteristics: Rural Nepal, 2009

Background characteristics	Number	%
Age of women	79	6.1
15-17 years	398	30.7
18-20 years	819	63.2
21-24 years		
Median age at marriage (years)	17.0	
Type of marriage		
Arranged	908	70.1
Love marriage	388	29.9
Number of living children		
0	352	27.2
1	502	38.7
2	326	*25.2*
3 or more	116	8.9
Caste/Ethnicity		
Brahmin/Chhetri	324	25.0
Tamang	324	25.0
Tharu	324	25.0
Muslim	324	25.0
Woman's level of education		
Illiterate	371	28.6
Literate up primary	664	51.2
Secondary	212	16.4
Higher secondary and above	49	3.8
Woman's occupation		
Do not earn/housewife	1019	78.6
Agriculture/poultry/daily wages	220	17.0
Other employment (Service/small business)	57	4.4
Women's autonomy		
High	488	37.7
Moderate	484	37.3
Low	324	25.0
Household wealth index		
Poorest	250	19.3
Poor	265	24.5
Middle	259	20.0
Rich	261	20.1
Richest	261	20.1
Membership in community groups		
Yes	480	37.0

No	816	63.0
Media exposure		
No/rare	742	57.3
Frequent	554	42.7
Husband's education		
Illiterate	180	13.9
Literate up to primary	695	53.6
Secondary	282	21.8
Higher secondary and above	139	10.7
Total	**1296**	**100.0**

Table 2. Percentage of young married women reporting experiences of sexual violence by their selected individual characteristics: Rural Nepal, 2009

Background characteristics	% reporting life time experience of SV	% reporting experience of SV in last 12 months	N
Current age of women		***	
15-17 years	51.9	45.6	79
18-20 years	47.5	35.9	398
21-24 years	45.1	27.6	819
Age at marriage	**		
Les than 15	59.3	34.1	91
15-17	48.1	32.1	672
18 and over	41.6	29.6	533
Type of marriage			
Arranged	47.8	31.4	908
Love marriage	42.5	30.9	388
Sex composition of living child		***	
Childless	46.9	40.6	352
At least one son	46.1	28.0	601
Only daughter	42.3	27.4	343
Woman's level of education		**	
Illiterate	46.4	34.8	371
Literate up primary (up to 8 years)	47.9	32.5	664
Secondary (9-10 years)	42.9	24.1	212
Higher secondary and above (11 years and above)	36.7	18.4	49
Woman's occupation		**	
Do not earn/housewife	46.3	30.2	1019
Agriculture/poultry/daily wages	47.7	39.6	220
Other employment (Service/small business	38.6	17.5	57
Knowledge of sex prior to marriage			
Yes	46.9	33.5	698
No	45.5	28.6	598
Media exposure		*	
No/rare	47.3	33.6	742
Frequent	44.8	28.2	554
Women' autonomy	***	***	
High	38.9	23.4	488
Moderate	49.2	32.0	484
Low	52.8	42.0	324
Total	**46.2**	**31.3**	**1296**

*Chi-square test of significant at * $p \leq 0.05$; ** $p \leq 0.01$; ** *$p \leq 0.001$*

Table 3. Percentage of young married women reporting experiences of sexual violence by their selected household and interpersonal characteristics: Rural Nepal, 2009

Background characteristics	% reporting life time experience of SV	% reporting experience of SV in last 12 months	N
Household asset index		**	
Poorest	46.0	25.2	250
Poor	46.4	28.3	265
Middle	46.0	28.2	259
Rich	48.7	35.3	261
Richest	44.1	39.1	261
Caste/Ethnicity		***	
Brahmin/Chhetri	48.2	19.8	324
Tamang	40.4	21.9	324
Tharu	48.2	40.4	324
Muslim	48.2	42.9	324
Frequency of contact with maternal family	**	***	
At least once a week	43.3	29.5	349
Once a month	42.5	25.8	562
Rare/never	54.3	40.8	385
Membership in community groups		***	
Yes	47.3	34.9	480
No	44.4	25.9	816
Inter-spousal communication	***	***	
None	73.2	69.6	56
Discussed on 1-3 matters	55.5	48.7	119
Discussed on 4-7 matters	43.9	27.5	1121
Total	**46.2**	**31.3**	**1296**

*Chi-square test of significant at * $p \leq 0.05$; ** $p \leq 0.01$; ** *$p \leq 0.001$*

Table 4. Percentage of young married women reporting experiences of sexual violence by their husband's selected characteristics: Rural Nepal, 2009

Background characteristics	% reporting life time experience of SV	% reporting experience of SV in last 12 months	N
Current age of husband			
15-24	46.6	32.0	644
25-34	44.6	29.6	614
35 and above	65.8	44.7	38
Husband's education	*	***	
Illiterate	51.7	43.3	180
Literate up to primary (up to 8 years)	48.5	35.0	695
Secondary (9 to 10 years)	41.5	20.2	282
Higher secondary and above (11 years and above)	37.4	19.4	139
Husband's occupation		***	
Unemployed	47.6	41.3	63
Agriculture	49.0	35.1	345
Daily wage labor	47.5	39.9	261
Service	45.3	28.1	274
Foreign employment	43.1	18.9	260
Business	43.0	30.1	93
Husband's alcohol consumption		***	
Often	57.1	40.4	203
Sometimes	45.9	31.4	290
Never/rarely	43.6	28.9	803
Husband's drug use	**	**	
Yes	75.0	65.0	20
No	45.8	30.7	1276
Multiple casual partners of husband	***	***	
Yes	67.7	52.9	102
No	44.4	29.4	1194
Total	**46.2**	**31.3**	**1296**

*Chi-square test of significant at * $p \leq 0.05$; ** $p \leq 0.01$; ** *$p \leq 0.001$*

Table 5. Random effects models of risk factors for sexual violence against young women: Rural Nepal, 2009

Variables	Model 1		Model 2	
	Odds Ratio	SE	Odds Ratio	SE
Household and individual variables				
Age at time of survey	0.903*	0.036	0.903*	0.036
Age of husband (ref: 15-24)				
25-34	1.341+	0.219	1.308+	0.214
35 and above	3.304**	1.286	3.282**	1.277
Age of woman at marriage (ref: under 15)				
15-17	1.086	0.306	1.136	0.318
18+	1.046	0.316	1.082	0.325
Woman has children	0.686*	0.124	0.689*	0.125
Woman's education (ref: illiterate)				
Literate up to grade 8	1.381+	0.242	1.373+	0.238
Secondary	1.347	0.387	1.355	0.384
Above Secondary	1.232	0.627	1.187	0.604
Woman's occupation (ref: none)				
Agriculture/poultry/daily wage	1.331	0.280	1.299	0.270
Other employment	0.745	0.297	0.760	0.303
No knowledge of sex prior to marriage	0.718*	0.116	0.696*	0.112
Frequent media exposure	1.156	0.203	-	-
Woman's autonomy (ref: high)				
medium	1.712**	0.327	1.707**	0.312
low	1.903**	0.442	1.945**	0.437
Caste/Ethnicity (ref: Brahmin/Chhetri)				
Tamang	0.741	0.204	0.630+	0.165
Tharu	1.357	0.397	1.191	0.343
Muslim	1.979*	0.662	2.017**	0.552
HH asset index (ref: poorest)				
Poor	1.284	0.308	-	-
Middle	1.100	0.274	-	-
Rich	1.442	0.381	-	-
Richest	1.365	0.406	-	-
Inter-Spousal communication (ref: low)				
medium	0.446*	0.173	0.439*	0.169
high	0.200***	0.069	0.201***	0.068
Contact with maternal family (ref: at least weekly)				
Once a month	0.703*	0.124	0.717+	0.126
Rare/never	1.343	0.257	1.363	0.259
Member of community group/groups	0.924	0.166	-	-
Husband's education (ref: illiterate)				
Literate up to grade 8	0.928	0.190	1.032	0.212
Secondary	0.567*	0.162	0.629+	0.177
Above Secondary	0.459*	0.165	0.547+	0.196
Husband's occupation (ref: unemployed)				
Agriculture	0.604	0.198	0.580+	0.189

Daily wage labour	0.655	0.225	0.591	0.202
Service	0.738	0.248	0.662	0.222
Foreign employment	0.250***	0.088	0.233***	0.082
Business	0.663	0.261	0.631	0.248
Husband's alcohol consumption (ref: often)				
sometimes	0.621*	0.138	0.601*	0.133
never/rarely	0.417**	0.100	0.412***	0.099
Husband has casual partners	2.218**	0.561	2.299**	0.572
Husband uses drugs	2.359	1.322	-	-
Never watched a pornographic film	0.507**	0.109	0.496**	0.106
Community level variables				
Index of women's autonomy	-	-	1.010	0.012
% of women with education	-	-	1.010	0.014
% of men with education	-	-	0.969+	0.019

*+ $p \leq 0.10$; *$p \leq 0.05$; **$p \leq 0.01$; ***$p \leq 0.001$*

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