



ORIGINAL RESEARCH ARTICLE

REPRODUCTIVE HEALTH STATUS OF MARRIED WOMEN PARTICIPATING IN CERVICAL CANCER SCREENING IN KATHMANDU

Ang Tshering Sherpa<sup>1,\*</sup>, Neeti Singh<sup>2</sup>, Manisha Bajracharya<sup>3</sup>, Amita Pradhan<sup>4</sup>, Peru Pradhan<sup>5</sup>

<sup>1</sup>Department of Community Medicine, KIST Medical College and Hospital, Imadol, Lalitpur, Nepal.

<sup>2</sup>Department of Obstetrics and Gynecology, KIST Medical College and Hospital, Imadol, Lalitpur, Nepal.

<sup>3</sup>People's Dental College, Nayabazar, Kathmandu, Nepal.

<sup>4</sup>Department of Obstetrics and Gynecology, PHECT, Kirtipur

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\*Correspondence to: Ang Tshering Sherpa, Department of Community Medicine, KIST Medical College and Hospital, Imadol, Lalitpur, Nepal.  
Email: [sherpadoctor@gmail.com](mailto:sherpadoctor@gmail.com)

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ABSTRACT

**Background:** Reproductive health of women has been the central agenda of Cairo conference since its inception in 1999. As a signatory country for Cairo Conference, Nepal government is also committed for reproductive rights for Nepalese women. Despite this, reproductive health challenges do exist in Nepal. This prompted us to determine the reproductive health status of married women attending in cervical cancer screening in Kathmandu.

**Methods:** Cross sectional study was designed to include retrospective data of married women, obtained during cervical cancer screening camp conducted by KIST Medical College at Laga Khala Clinic, Lagan, Kathmandu on 12-02- 2017. Among married women (131) attended cervical 100 women's records with complete set of data for reproductive health variables required for the study were included in this study. Statistical analysis was done descriptively.

**Results:** Participant's age is between 21 years to 61years, 83% are literate and 46% are employed. Adolescence marriage and pregnancy were two main problems noted. Cervical examination in relation showed 3% (3) VIA positive, 33% (33) Cervicitis, 10% (10) cervical polyp, 7% (7) atrophic vaginitis, 4% (4) cervical erosion and 43% (43) healthy cervix. Regarding Knowledge about risk factor majority 92% (92) had either no knowledge or only some extent of knowledge.

**Conclusions:** Married women who lives in Kathmandu has significant reproductive health problem. Urban health program should address these issues.

INTRODUCTION

Reproductive health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes.<sup>1</sup> International conference for population and development (ICPD) was held in Cairo Egypt, in 1994 and the conference was the turning point that sexual and reproductive health was perceived holistically and right based approach was emphasized. Though many countries have attempted to implement recommendation of Cairo conference the progress has not been satisfactory.<sup>2</sup>

Several other milestone took place for the sexual and reproductive health such as first World Health Organization (WHO) global strategy on reproductive health was endorsed by the 57.12 resolution of World Health Assembly in 2004.<sup>3</sup> This initiated to develop and implement activities for improving sexual and reproductive health in different countries. Also 2005 world summit committed to achieve universal access to reproductive health by 2015.<sup>4</sup> As a signatory country for Cairo Conference, Nepal government is also committed for reproductive rights for Nepalese women. Despite this, reproductive health challenges especially when it comes to adolescence marriage and adolescence pregnancy is serious problem

in Nepal.<sup>5</sup> Considering these problem national Adolescence sexual and reproductive health program was designed in 2011 and implemented in several districts in Nepal but not in Kathmandu.<sup>6</sup> Therefore this study aimed to identify reproductive health status of married women in Kathmandu.

## METHODS

Observational cross-sectional study was designed to use retrospective data collected during Cervical cancer screening camp conducted by KIST Medical College and Hospital (KISTMCH) at Laga Khala Clinic, Lagan, Kathmandu on 12-02- 2017. On the camp Health education regarding cervical cancer was conducted by faculties of Community Medicine, KISTMCH. Prior conducting health education Participants knowledge was assessed. Married women who give consent to have cervix examined by Visual Inspection with Acetic acid (VIA) were examined by gynecologist. VIA is the simplest cervical cancer screening method recommended for resource poor countries and that includes our part of world.<sup>7</sup> Verbal consent was taken from Principal of KIST Medical College to use the data for study and ethical clearance was sought from Institutional review committee of KIST Medical College and Hospital.

Pilot study was done by randomly selecting (lucky draw) 10 participants from total 131 participants of camp to see the status of variables required for the study.

Sample size was calculated by taking 50% prevalence, based on prevalence of reproductive health problem among urban women in Mumbai.<sup>8</sup> Confidence Interval 95% and 10 % error of margin by using  $N = z^2 P q/d^2$  formula. Required sample size was 96 but we used 100 records.

Observational checklist was formulated based on our study objectives. Socio demographic, Reproductive health variables (Menarche, menopause, age at first marries, age at first pregnancy, number of live birth, number of pregnancy, number of abortion, cervical examination finding in relation to VIA, signs and symptoms related to reproductive health problem, knowledge about risk factors for cervical cancer, source of information and married women with ever cervix examined) were included in the study. Inclusion criteria were records with complete set of above-mentioned variables and records not torn or destroyed and written in understandable handwriting. Data entry was done and any missing data, outliers etc. were identified and corrections were made

immediately. Double data entry was done to minimize the recording error. Data analysis was done descriptively using Statistical Package for social sciences (SPSS) version 20.

## RESULTS

**Table 1: Socio-Demographic characteristics of participants (N=100)**

Characteristics of Participants	Frequency(N)	Percentage
<b>Age</b>		
21 to 29 years	21	21
30-39 years	37	37
40-49 years	27	27
50-61 years	15	15
<b>Ethnicity</b>		
Brahmin and Chhetri	46	46
Newar	28	28
Janajati other than Newar	23	23
Dalit	3	3
<b>Religion</b>		
Hindu	76	76
Buddhist	17	17
Christian	4	4
Muslim	3	3
<b>Level of education</b>		
Illiterate	17	17
Upto Class 10	56	56
SLC to bachelors level	24	24
Masters level and above	3	3
<b>Occupation</b>		
Housewife	54	54
Daily wages	23	23
Small scale business	7	7
Large scale business	14	14
Service	2	2

Median age at marriage was 19 years (SD±3.46) with minimum age 13 and maximum age 29 years. Adoles-

cent age marries is 60% and among 91 respondents who were at-least once pregnant and 47 (51.64 %) were pregnant at adolescent age. Among 87 respondents who had children, 26.43% 23 (26.43%) had 3 or more than 3 live birth children. Respondent who had at-least one abortion is 31 (31%) (Table 2).

**Table 2: Reproductive Health characteristics of participants**

Characteristics of Participants	Frequency(N)	Percentage
Menarche ( Median age 13 years SD±1.24) with minimum age 11 and maximum age 17 years	100	100
Menopause( Median age 42 years (SD±1.89) with minimum age 40 and maximum age 47 years	20	20
Age at marries ( Median age 19 years (SD±3.46) with minimum age 13 and maximum age 29 years	100	100
Upto 19	60	60
20-24	30	30
25 and above	10	10
Age at First Pregnancy( Median age 19 years (SD±3.46) with minimum age 13 and maximum age 29 years	91	100
Up to 19 years	47	51.64
20-24 years	31	34.06
25 and above	13	14.28
Number of live birth	87	100
1-2	64	73.56
3-4	21	24.14
More than 4	02	2.30
<b>Number of abortion (N=100)</b>		
No abortion	69	69
1-2 abortions	23	23
More than 2 abortions	08	08

**Table 3: Reproductive Health problem reported by respondents**

Characteristics Reproductive Health problem	Frequency(N)	Percentage
<b>Lower Abdominal pain</b>		
Yes	59	59
No	41	41
<b>Vaginal discharge and or itchinness</b>		
Yes	53	53
No	47	47
<b>Genital Ulcer</b>		
Yes	08	08
No	92	92
<b>Wart(cowliflower like growth in genital area and or periphery skin)</b>		
Yes	21	21
No	79	79

Among sign and symptoms of reproductive health problem lower abdominal pain and vaginal discharge and or itchiness were the most common. Symptoms of reproductive health problem reported were lower abdominal pain was 59(59%), vaginal discharge and or itchiness 53(53%), wart like growth 21 (21%) and genital ulcer 8(8%) (Table 3).

Cervical examination in relation with visual inspection with acetic acid (VIA) showed 3 (3%) VIA positive, 33(33%) Cervicitis, 10(10%) cervical polyp, 7(7%) atrophic vaginitis, 4(4%) cervical erosion and 43(43%) healthy cervix (Table 4).

**Table 4: Cervical Exam Clinical Findings in relation with Visual Inspection with acetic acid (VIA)**

	Frequency	Percentage
Cervicitis	33	33
Cervical polyp	10	10
Atrophic Vaginitis	7	7
Cervical Erosion	4	4
VIA positive	3	3
Healthy Cervix	43	43
Total	100	100

Majority of respondents with sign and symptoms of reproductive health problem and cervical anomalies, only 46 (46%) had their cervix examined at least once. Respondent's knowledge of cervical cancer risk factors are also unsatisfactory as only 8 (8%) had very good knowledge and 74 (74%) with some extent of knowledge and 18 (18%) had no knowledge (Table 5).

**Table 5: Respondent's knowledge of cervical cancer risk factors**

	Frequency	Percentage
Very good knowledge of risk factors for cervical cancer	8	8
Some extent of knowledge of risk factors for cervical cancer	74	74
No knowledge of risk factors for cervical cancer	18	18
<b>Total</b>	<b>100</b>	<b>100</b>

Among 46 who have heard about cervical cancer, Source of information about cervical cancer risk factors of respondents are mostly from social network like friend and families 16(34.7%), radio and or television 12(26.08%), social media 10(21.7%) and only 8 (17.39) from Health worker (Table 6).

**Table 6: Source of Information about cervical cancer risk factors (N=46)**

	Frequency	Percentage
Social Networks (Friends and Families)	16	34.7
Social Media (Facebook, Google, Instagram etc)	10	21.7
Television/Radio	12	26.08
Health Worker	08	17.39
Total	46	100

## DISCUSSION

Our study participants are presently residing at Kathmandu with age group of 21 to 61 years old. Eighty-three (83) % of them were literate. This finding was little higher than 75.19% female literacy rate among urban population according national population and housing census, 2011.<sup>9</sup> Statistical Trends in Literacy Rates in Nepal done by Basanta Dhakal in 2018 showed that literacy rate is in increasing trend.<sup>10</sup> This confirms our finding.

Ethnicity wise 74 (74%) of participants were Brahmin, Chhetri and Newar. Study done by Bennett Lynn et al. on Caste and ethnicity of Nepal in 2006 showed that they were the main ethnic group in Kathmandu valley and majority of them are Hindu.<sup>11</sup> We also found 76% of our participants are Hindu. Considering socio demographic pattern of our study participant, they represent women inhabitant of Kathmandu and hilly area.

In our study median age at marriage was 19 years, which is below than legal age for marriage. Legal age for marriage in Nepal is 20 is for both girls and boys.<sup>12</sup> However, with parental consent they can marry at the age of 18. Our study found 60 % (60) adolescence marriage. This showed either adolescence marriage is parents will or the implementation

of law is poor in Nepal. Our study also showed high adolescent pregnancy 47(51.64%), participants with 3 or more than 3 live birth children 23 (26.43%) and at-least one abortion 31 (31%). However, we have not sought the cause of reproductive health problem but other study has shown unmet reproductive health problem in Nepal is high.<sup>13</sup> This may also apply for our case. So further research should be needed. When asked for number of pregnancies among participants 9 (9%) were never got pregnant. This may be due to infertility. This is similar with study done by Dangal G, on reproductive morbidity in Eastern Nepal.<sup>14</sup>

Regarding Symptoms suggestive of reproductive health problem lower abdominal pain and vaginal discharge and or itchiness were the most common. Fifty-nine (59%) agreed to have experienced lower abdominal pain, 53(53%) vaginal discharge and or itchiness, 21 (21%) wart like growth and 8(8%) genital ulcer). This finding is similar with community based study conducted in Rupandehi, Nepal.<sup>15</sup>

Cervical examination in relation with visual inspection with acetic acid (VIA) showed 53 (53%) had unhealthy cervix. Among them cervicitis was the most common. It is proven fact that the main cause of cervicitis is sexually transmitted infections and most often they are asymptomatic and if lead untreated it may lead reproductive morbidities.

Three (3) % of the participants were found VIA positive this indicates 3 of them may have precancerous lesions. Cancer mortality profile among female in Nepal showed that cervical cancer is the most common accounting 18.4% of all cancer.<sup>16</sup> Wart like growth in genital a is caused by Human Papilloma virus (HPV) and our study showed 21% had this problem. It is proven that High risk HPV is the main causative factors for causing cervical cancer. Our own study showed that HPV 16 and 18 is the HPV strain associated with cervical cancer.<sup>17</sup>

Significant number of women had symptoms of reproductive health problem, cervicitis and wart like growth but only 46 % (46) had their cervix examined at least once. Low rate of cervical cancer screening among women in Nepal is also shown by other study conducted in Nepal.<sup>18</sup> Such kind of trend may lead negative impact on reproductive health of women in Nepal. So in depth study regarding the cause of

women not having cervical examination must be carried out and intervention should be targeted to it to prevent morbidity and mortality related to it. Participant's knowledge of cervical cancer risk factors were also found unsatisfactory as only 8% (8) had very good knowledge and 74% (74) with some extent of knowledge and 18% (18) had no knowledge. This finding is supported by other study conducted in Nepal.<sup>19</sup>

Majority of participant's source of information was from social network like friends and families Participant's source of information about cervical cancer risk factors are mostly from social network like friend and families 16(34.7%) and very few got information through health worker 8 (17.39%). This indicated that participants may not have got correct information and if this was the reality, reproductive right of women to get proper information may be jeopardized.

## CONCLUSIONS

Adolescent marriage, pregnancy at adolescence age, reproductive health problems are the main problem noted among married women in Kathmandu. Despite having significant number of women with reproductive problems only few were noted having cervical examination done. Also, role of health worker in information dissemination was found very low. All of these factors may contribute poor reproductive health. So intervention should be targeted in these issues.

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## REFERENCES

1. United Nations Populations Fund (UNFPA) Guidelines on Reproductive Health. Available at: <https://www.un.org/popin/unfpa/taskforce/guide/iatfrehp.gdl.html>. Accessed Jun 9, 2019
2. Population Reference Bureau. What was Cairo? The promise and reality of ICPD. Sep142004 <https://www.prb.org/whatwascairothepromiseandrealityoficpd/>. Accessed Jun9, 2019

3. World Health Organization. World Health Assembly adopts first global health strategy on reproductive health and resolution of family and health. <https://www.who.int/mediacentre/news/releases/2004/wha2/en/> Accessed Jun9,2019
4. United Nations Populations Fund (UNFPA) World Summit Commit to Universal Access to Reproductive Health by 2015. 19 Sep 2005. <https://www.unfpa.org/press/world-summit-commits-universal-access-reproductive-health-2015> Accessed Jun9, 2019
5. Nepal S, Atreya A, Kanchhan T. Teenage pregnancies in Nepal-The problem status and socio-legal concerns. *Nepal Medical Assoc*2018;56(211):678-82
6. Ministry of Health, Government of Nepal. Annual Report. Department of Health services 2015/16. [http://www.dohs.gov.np/wpcontent/uploads/2017/06/DoHS\\_Annual\\_Report\\_2072\\_73.pdf](http://www.dohs.gov.np/wpcontent/uploads/2017/06/DoHS_Annual_Report_2072_73.pdf) Accessed Jun9,2019
7. Sankaranarayanan, R, Shyamalakumary, B, Wesley, R, Sreedevi Amma, N, Parkin, DM, Nair, MK. Visual inspection with acetic acid in the early detection of cervical cancer and precursors[letter]. *Int J Cancer* 1999; 80( 1): 161–3.
8. Sogarwal R, .Gupta K,Dwivedi L.K.REPRODUCTIVE HEALTH PROBLEMS AMONG URBAN WOMEN: A STUDY OF FOUR METRO CITIES IN INDIA. *Health and Population Perspectives and Issues* 29(3): 116-128, 2006.
9. Central Bureau of Statistics Kathmandu Nepal Nov 2012 Gov. of Nepal. National Population and housing census 2011. <https://nepal.unfpa.org/sites/default/files/pub-pdf/Nepal-Census-2011-Vol1.pdf> Accessed Jun92019
10. Dhakal B. Statistical Trends in Literacy rate in Nepal. *IOSR Journal of Applied Chemistry* 2018; 11(11): 71-77
11. Bennett, Lynn, Dilli Ram Dahal and Pav Govindasamy, 2008. Caste, Ethnic and Regional Identity in Nepal: Further Analysis of the 2006 Nepal Demographic and Health Survey. Calverton, Maryland, USA: Macro International Inc.
12. The Himalayan Times. Minimum age for marriage being upgraded to 20.Dec 24 2016. <https://thehimalayantimes.com/nepal/minimum-age-for-marriage-being-upgraded-to-20/> Accessed Jun92019
13. Malqvist M, Hulstrand J,Larsson M,KC A. High levels of unmet need of family planning in Nepal. *Sexual and Reproductive Health Care*.2018;17:1-6
14. Dangal, G. . A study of reproductive morbidity of women in the Eastern Terai Region of Nepal. *Nepal Journal of Obstetrics and Gynaecology*, 3(1), 29-34.
15. Kaphle P, Bhattarai S S. Prevalence and factor associated with reproductive tract infections in Gangolia village,Rupandehi District, Nepal. *Advances in Public Health*. 2016 <http://dx.doi.org/10.1155/2016/8063843>
16. WorldHealth Organization-Cancer Country Profiles, 2014. [https://www.who.int/cancer/country-profiles/npl\\_en.pdf](https://www.who.int/cancer/country-profiles/npl_en.pdf) Accessed Jun9,2019
17. Sherpa AT, Clifford GM, Vaccarella S, Shrestha S, Nygard M, Karki BS, et al. Human papillomavirus infection in women with and without cervical cancer in Nepal. *Cancer causes & control: CCC*. 2010 Mar; 21(3):323-30.
18. Ranjit A,Gupta S,Shrestha R,Kushner AL,Nwomeh BC,Groen RS.Awareness and prevalence of cervical cancer screening among women in Nepal. *International journal of gynecology and obstetrics*.2016; 134 (1):37-40
19. Thapa N. et al. Knowledge, attitude, practice and barriers of cervical cancer screening among women living in mid-western rural, Nepal. *J Gynecol Oncol* 2018 Jul;29 (4)