**The Geographic Base**
**Vol. 7: 91-102, 2020**
**Doi: 10.3126/tgb.v7i0.34274**
**Nepal Geography Student Society, CDG, TU**

# Knowledge and Attitude of Adolescents on Reproductive Health (Rh): A Case of Padmakanya Higher Secondary School, Kathmandu

**Narayan Prasad Paudyal [*,1] , Shivaraj Paudyal[2]**

[*,1]Central Department of Geography Education, Tribhuvan University, Kathmandu, Nepal
[2]National Integrated Collage, Kathmandu, Nepal
[*]**Corresponding email**: paudyal_narayan@yahoo.com

**Received:** 9th August, 2020 **Accepted:** 21st December, 2020

## Abstract

*The present study aims at finding out the essential knowledge and attitude on reproductive health among adolescents studying at higher secondary level. It is a case study of Padmakanya H.S.S. of the total 110 girl students of class 11 and 12 were selected. This study is quantitative in design and descriptive in nature. Structured questionnaire was prepared for the collection of data in which 38 types of closed questions were asked to fulfill the objectives. The findings of the study reveal that irrespective of cast, religion and ethnicity majority of the respondents have the knowledge on reproductive health. About 90% respondents have knowledge on it. Similarly, their attitude to have the knowledge of RH was entirely positive. Almost 91.8% answered positively for having its knowledge. They have the knowledge of family planning methods, birth spacing, appropriate age of marriage and HIV/AIDS. They have acquired the required knowledge of components of RH such as infertility, safe motherhood, transmission and prevention of STIS and HIV, physical change and menstruation cycle. However, some of them lack the knowledge of RH matter. Overall, the acquisition of knowledge of RH, the national birth rate, mortality, morbidity and fertility is maintained in the national level.*

**Keywords**: Adolescent, attitude, menstruation, motherhood, transmission

## Introduction

Adolescence is the period of transition from childhood to adulthood. During this period there are so many changes such as; physical, mental, psychological, behavioral etc. It is one of the most crucial periods of life in which many key socio-economic, biological and

demographic events occur and that set the stage of adult life. The term 'Adolescents' 'youth' and 'young people' are used differently in various societies. These categories are associated- where they are recognized at all- with different roles, responsibilities and ages that depend on the local context (UNFPA, 2003).

Adolescence has been defined by the World Health Organization as the period of life spanning the ages between 10-19 years, and youth as between 15-24 years. At last, UNFPA, UNICEF and WHO define 'Young People' as between the ages of 10 and 24, Youth' as those aged 15-24, and ,Adolescent' as the population aged 10-19. Adolescents aged 10-14 is known as early adolescents and 15-19 as late adolescents (Pathak, 2006). WHO (1995) has defined adolescence as: Progression from appearance of secondary sex characteristics to a sexual and reproductive maturity, Development of adult mental process and adult identity, transition from total socio-economic dependence to relative independence. In Nepal adolescents comprises about one fourth (24.19%) of total population whereas of adolescents of age group 10-14 belongs to 13.12% and adolescent of age group 15-19 years are 11.07% where male adolescents share 10% and female adolescents share 11.2% of the total population (CBS, 2011).

The field of reproductive health is turning attention toward understanding young men's reproductive needs and outcomes (Greene & Biddlecom, 2000). Despite the growing recognition of the importance of young men in reproductive health programs and policies (Gavin et al., 2014) knowledge is lacking regarding men's reproductive health (Saewyc, 2012) including such factors as fatherhood status and timing. While many studies explore women's knowledge, attitudes, and beliefs (KAB) and their reproductive outcomes (Bruckner, Martin & Bearman, 2004), little is known about such associations in men. Recent research has examined adolescent male's reproductive KAB and their sexual behavior, including abstinence, and condom and contraception use; (Cummings, Auerswald, & Ott, 2014) however, due to data limitations these studies could not account for a central outcome--entrance into fatherhood. Measuring KAB during adolescence, a period when such knowledge about sexual and reproductive behavior is developed (Brooks & Furstenberg, 1989) has the potential to inform future outcomes such as fatherhood status, timing and residency.

Adolescents Reproductive Health is one of the vital components of overall health; which is the growing concern today. Most of the higher secondary schools' girls in the age of 15-19 are at the position of sexually active and entering into the married life and they are more likely to expose in the reproduction. Biologically, adolescent girls in this age group are more vulnerable because their reproductive tracts are still maturing and tears in the tissue allow easy access to infections. Similarly, this period is more critical than that of other in the sense of reproductive health in which they face new problem because

they reach sexual maturity before they have reached physical, emotional, mental and socio- economic maturity. Being their curious nature, they are interested toward sexual activities or they become attractive toward opposite sex, which may lead them to adopt harmful activities to fulfill sexual desire that makes them victims of various reproductive health problem including unwanted pregnancies, unsafe abortion, and various sexually transmitted diseases because of less access on appropriate information education and services on reproductive health. Therefore, transforming knowledge to the adolescents concerning to reproductive health and developing the positive attitude on them is the main concern of this study.

**Theorical reviews and empirical evidence**

Reproductive Health is a human right. In 1994, the International Conference on Population and Development (ICPD) stressed the importance of adolescence to sexual and reproductive health throughout the life cycle. It also – for the first time in an international agreement – recognized that adolescents have particular health needs that differ in important ways from those of adults, and stressed that gender equity is an essential component of efforts to meet those needs. The ICPD program of action urges governments and health systems to establish, expand or adjust program to meet adolescents and health systems to establish, expand or adjust programs to meet adolescent' reproductive and sexual health needs, to respect rights to privacy and confidentiality, and to ensure attitudes of health care providers do not restrict adolescent's access to information and services. It further urges governments to remove any barriers (laws, regulations or social customs) between adolescents and reproductive health information, education, and services (UNFPA, 2003). Early child- bearing continues to be an impediment to improvements in the educational, economic and social status of women in all parts of the world. Overall, for young women, early marriage and early motherhood can severely curtail educational and employment opportunities and are likely to have a long-term, adverse impact on them and their children's quality of life (ICPD, 1994).

Substantial proportion of the total population in Nepal falls under adolescent and youth classification. Most of the birth in the country since occurs within marital union: number of children born to adolescent and youth refers the fertility rates to these groups, which is quite high. The evident rapid succession of birth before 20 years of age further aggravates after 19 years of age. In addition to all these, analysis of early marriage, successive birth, lower age at first child birth, short birth interval, and pregnancy termination show the situation of the adolescents and youths alarming and vulnerable (Panta, 2001).

The mean ideal number of children is 2.3 among all women and 2.4 among currently married women. Similarly, the mean ideal number of children is 2.4 among all men and

2.5 among currently married men age 15-49. There has been a steady decline in the mean ideal number of children among currently married women over the last ten years, from 2.9 children in 1996 to 2.6 children in 2001 and to 2.4 children in 2006 (MoPH, 2007).

All the adolescents should be aware about RH. Therefore, Sources of information plays vital role to make aware adolescents. For the information of adolescent is physical change, radio and television were found appropriate source of information. Similarly, for healthy sexual behavior and unsafe sex relationship, print materials and television were found more appropriate sources of information. For the ejaculation process, menstrual process and information of opposite sex organs, social activities or live media (inter personal communication, peer information, etc.) were found appropriate sources of information. Finally, radio, television, and print materials were found more appropriate sources of information for adolescents (Acharya, 2007).

Adolescent pregnancy and motherhood are a major social and health issue in Nepal. Early teenage pregnancy can cause severe health problems for both the mother and child. Moreover, an early start to childbearing greatly reduces the educational and employment opportunities of men and is associated with higher levels of fertility. Nineteen % of women age 15-19 have already had a birth or are pregnant with their first child (MoPH, 2012). In Nepal, 50% of girls marry before age 18, and early child bearing follows early marriage usually within 18 months (WHO, 2011).

From the above reviewed literature researcher get the clear idea and gap between previous and present study. The number of studies had done by different individuals, GOs, NGOs and INGOs in reproductive health and adolescence problems but the relation between reproductive health's with Knowledge and Attitude of adolescents has not conducted yet. The researcher is hopeful; its findings have great contribution in the field of adolescent's planning teaching-learning aspects of education and others. Hence to fulfill that gap researchers choose the topic 'Knowledge and Attitude on Reproductive Health among Higher Secondary School Adolescents' mainly girls for the study.

## Methods and Materials

This study is based on primary source of data which was collected by administrating questionnaire on selective school adolescent girls. Total 110 students who were present in class 11 and 12 was selected by using census survey method. Hence, all of the students present in higher secondary level class were the respondents of this study. The structured questionnaire was used for the collection of data. Questionnaire was prepared as per the objectives, which consist 38 types of closed questions that were

prepared by taking the help of previous report and journals. It is quantitative in design and descriptive in nature.

**Study area**

The study area was purposively selected and was carried in Padmakanya Higher Secondary School, Dillibazar, Kathmandu. In this school, most of the students are from ethnic and dalit communities such as Gurung, Magar, Rai, Limbu, Surkheti, Ramtel, Pariyar, Newar and Tamang. So, all of the students studying in higher secondary level i.e.,110 including the age group of 15 to 16, 17 and 18 and above from Padmakanya Secondary School are the population of the study. Total of 22 students were under 15 to 16 years age group, 46 were of 17 years and 42 were above 18.

## Results and Discussion

**Knowledge on reproductive health**

This section deals with the knowledge of reproductive health of the respondents. All the RH components have been discussed in the section specifically. Reproductive health is core health conduction. Various components have been included in its elements. Mainly eight elements are universal components of reproductive health. Table 1 deals with the knowledge about components of reproductive health.

**Table 1.** Distribution of respondents by knowledge of components of reproductive health

| Components of RH | Number (N=110) | (%) |
|---|---|---|
| Family planning | 107 | 97.3 |
| Safe motherhood | 105 | 95.5 |
| Care of new born | 106 | 96.4 |
| Abortion | 104 | 94.5 |
| STIs\HIV\AIDS | 104 | 94.5 |
| Infertility | 102 | 92.7 |
| Adolescent and youths RH | 108 | 98.2 |
| Problems of elderly women | 101 | 91.8 |

**Source:** Field survey

Table 1 shows that most of respondents have knowledge about reproductive health's components. More than 91% respondents know about all the eight components of reproductive health. Out of the 110 respondents, 97.3% know about family planning, and 95.5, 96.4, 94.5, 94.5, 92.7, 98.2, and 91.8% respondents have knowledge about safe motherhood, care of new born, abortion, STIs and HIV/AIDS, infertility, adolescent and youth's RH, and problems of elderly women respectively. The finding shows that, most of respondents have nominal knowledge of reproductive health.

**Knowledge of physical changes during adolescence**

In adolescence period, a boy/girl gets various physical changes. In addition, he/she will feel a new matter or a problem. So, all the adolescents' girls should know about the physical change in the period. Table 2 shows the data in detail.

**Table 2.** Distribution of respondents by physical changes of girls in adolescence period

| Physical changes of girls | Number (N=110) | (%) |
|---|---|---|
| Physical development | 107 | 97.3 |
| Hair begins to grow in the arm pits | 102 | 92.7 |
| Hair grow around the genitals | 103 | 93.6 |
| Voice becomes sharp | 107 | 97.3 |
| Growth in the size of breast | 99 | 90.0 |
| Change in the size of genital | 103 | 93.6 |
| Menstrual cycle begins | 107 | 97.3 |
| Pimples begin to appear | 99 | 90.0 |

**Source:** Field survey

More than 90% respondents were known to the physical change in the adolescence period. From Table 2 it can be seen that out of the 110 respondents, 97.3% know about physical development in girls, 92.7% know about hair beginning to grow in the arm pits, 93.6% know about growth of hair around the genitals, 97.3% know about the change in voice, 90.0% know about growth in the size of breast, 93.6% know the change in the size of genital and the 90% knew about the pimple beginning to appear respectively. The data represents the girls have the higher level of knowledge about the physical changes of girls in the adolescence period.

**Knowledge about getting married and being pregnant**

Knowledge about age of marriage and pregnant is an essential part of reproductive health. So, all women/girls should have knowledge about marriage, pregnancy and getting pregnant. About 66.4% respondents opined that the appropriate age for marriage to female is 20 and to male is 25. Similarly, 53% respondents responded having the right knowledge of being pregnant. Likewise, 90% reported the consequences of early pregnancy as infant mortality and, 71.8, 89.1, and 88.2% reported the effects of early pregnancy as maternal morbidity, maternal mortality, and low weight birth respectively. The study clearly reveals that 92.7% students have the knowledge of abortion as termination of pregnancy before 12 months.

**Knowledge about family planning methods**

Family planning methods help to prevent the transmitting sexually transmitted disease and avoid unwanted pregnancy. Various methods were used to avoid unwanted pregnancy and to birth spacing. Almost all respondents have nominal knowledge about the means of family planning. The specific knowledge of family planning methods is presented in Table 3.

**Table 3.** Distribution of respondents by knowledge on means of family planning

| Means of Family Planning | Number (N=110) | (%) |
|---|---|---|
| Condom | 109 | 99.1 |
| Pills | 108 | 98.2 |
| IUD | 97 | 88.2 |
| Norplant | 106 | 96.4 |
| Inject able | 93 | 84.5 |
| Foam tablets | 101 | 91.8 |
| Male sterilization | 94 | 85.5 |
| Female sterilization | 88 | 80.0 |
| With drawl | 80 | 72.7 |
| Calendar method | 81 | 73.6 |
| Breast feeding method | 59 | 53.6 |

**Source:** Field survey

Table 3 shows that, 99.1% of the respondents have knowledge about condom, and 98.2, 88.2, 96.4, 84.5, and 91.8% have knowledge about pills, IUD, Norplant, and inject able respectively. 80% have knowledge about the permanent method of female sterilization and 85.5% have knowledge of male sterilization. Comparatively lower proportions of respondents have knowledge about natural method of family planning than modern methods. Out of the total 110, 72.7% have knowledge about withdrawal, 73.6% have knowledge about calendar method and 53.6% have knowledge about breast-feeding method. Overall, lower proportion of respondents has knowledge about breast-feeding method and higher proportion has knowledge of condom. It seems that popularity on use of condom is wider than the natural family planning process. So, the knowledge about natural family planning in society should also be promoted. Of the total respondents, 43.6% of respondents each reported the source of knowledge of FP as radio, 40% TV and 42.7% said teachers. The other sources of knowledge are newspapers, doctors, friends, parents, health workers, textbooks and posters pamphlets. About 20% of the respondents could not identify the source of knowledge.

**Knowledge of appropriate age for birth spacing**

To maintain the women's and child's health and to form well family, couple should manage right birth spacing. Of the total, 77.3% respondents reported that there should be five years birth spacing between two children which is beneficial for both children and mother. About 12% respondents opined that there should be above than 5 years gap between the children. One the other hand, 11% informants reported there should be below five years gap.

**Knowledge about STIs and HIV/AIDS**

Acquired Immune Deficiency Syndrome (AIDS) was first recognized internationally in 1981. As of 2006, an estimated 40 million adults and children around the world were living with human immunodeficiency virus (HIV) and AIDS. AIDS is caused by HIV and once infected with the virus, a large proportion of those infected die within 5-10 years (NDHS, 2006). STIs can play a role in facilitating the spread of HIV. In fact, the probability of transmission is largely indicated by the incidence of STIs. Therefore, high incidence of STIs means a high probability of HIV transmission from one person to another (Dulal, 2006). So, all the adolescent should have knowledge of STIs and HIV/AIDS. The respondents' knowledge of STIs and HIV/AIDS are presented that 97.3% of the total respondents have knowledge about HIV/AIDS and 89.1 and 82.7% respondents reported gonorrhea and syphilis as the types of STIs respectively. The responses show that most of respondents have knowledge about HIV/AIDS than any types of STIs.

**Knowledge of route of HIV transmission**

**Table 4.** Distribution of respondents by knowledge of route of HIV transmission

| Routes of HIV transmission | Number (N=110) | (%) |
|---|---|---|
| Unsafe sexual contact | 107 | 97.3 |
| Transfusion of infected blood | 109 | 99.1 |
| Birth from HIV infected mother | 106 | 96.4 |
| Use of un-sterilized syringe | 109 | 99.1 |
| Sharing comps clothes and towels | 7 | 6.4 |
| Shaking hands and kissing | 5 | 4.5 |
| Mosquito bite | 18 | 16.4 |
| Living together | 4 | 3.6 |

**Source:** Field survey

Table 4 shows that 97.3% respondents have knowledge about the rout of HIV transmission as unsafe sexual contact and 99.1% said transfusion of infected blood is another way of HIV transmission. Birth from HIV infected mother is also a way of HIV transmission

as reported by 96.4% of the respondents. Moreover, 99.1% of respondents said use of un-sterilized syringe is another way of HIV transmission. Most of respondents have correct knowledge about rout of HIV transmission but a few reported the rout of HIV transmission as: sharing combs/cloths/towels 6.4%, shaking hands and kissing 4.5%, mosquito bite 6.4%, and living together 3.6%.

**Knowledge of preventive measure of HIV transmission**

Knowledge of preventive measure of HIV transmission is important to prevent the transmission of HIV/AIDS. The respondent's knowledge on preventive measure of HIV transmission is presented in Table 5.

**Table 5.** Distribution of respondents by knowledge on preventive measures of HIV transmission

| Preventive measures | Number (N=110) | (%) |
|---|---|---|
| Abstain for sex | 100 | 90.9 |
| Be mutually faithful | 102 | 92.7 |
| Consistent use of condom | 107 | 97.3 |
| Check blood before transfusion | 109 | 99.1 |
| Avoid sharing injection | 110 | 100.0 |
| No birth from infected mother | 108 | 98.2 |
| Avoid sharing blades | 11 | 10.0 |

**Source:** Field survey, 2015.

Table 5 shows that 90.9% of respondents reported the preventive measures of HIV transmission as avoiding sexual relation. The respondents also reported that being mutually faithful 92.7%, consistent use of condom 97.3%, checking blood before transfusion 99.1%, avoiding sharing injection 100%, no birth from infected mother 98.2%, and avoiding sharing blades 10% are the preventive measures of HIV transmission.

**Attitudes towards need of reproductive health knowledge**

Attitude of the respondents reflects the interest to gain further knowledge on the matter. Attitude of the respondents on knowledge of RH that should be given or not in adolescence period is presented in Table 6.

**Table 6.** Distribution of respondents by needs of RH knowledge in adolescent period

| Responses | Number | (%) |
|---|---|---|
| Yes | 101 | 91.8 |
| No | 9 | 8.2 |
| Total | 110 | 100.0 |
| **Reasons for needs of RH knowledge** | | |
| To be aware for the further RH problems | 25 | 24.8 |
| To maintain the quality of life | 38 | 37.6 |
| To know the physical changes | 5 | 5.0 |
| To be safe STIs and HIV/AIDS | 55 | 54.5 |

**Source:** Field survey

The Table 6 shows that 91.8% of the respondents favored for the need of RH knowledge in the adolescence period. They support for the needs of RH knowledge at the time of adolescence. Among the respondents who favored for the need of RH knowledge, 24.8% gave the reason for needs of RH knowledge as to be aware for the further RH problems. Similarly, some of them gave the reasons as: to maintain the quality-of-life 37.6%, to know the physical changes 5% and to be safe from STIs and HIV/AIDS 54.5%. The result shows that most of the respondents have positive attitude toward the need of reproductive health knowledge.

## Conclusion

This study is mainly based on reproductive health. The main aim of this study is to find out the existing knowledge and attitude on reproductive health among higher secondary school adolescents. Out of the 110 respondents, 97.3% know about family planning, 95.5, 96.4, 94.5, 94.5, 92.7, 98.2, and 91.8% respondents have knowledge about safe motherhood, care of new born, abortion, STIs and HIV/AIDS, Infertility, adolescent and youths RH, and problems of elderly women respectively. Similarly, of the 110 respondents, 97.3% know about physical development in girls,92.7% know about hair beginning to grow in the arm pits, 93.6% know about growth of hair around the genitals, 97.3% know about the change in voice, 90% know about growth in the size of breast, 93.6% know the change in the size of genital and the 90% knew about the pimple beginning to appear respectively. As per knowledge of menstruation period, out of the total 110 respondents, 96.4% perceive about the menstruation as a periodic discharge of blood and mucus. In addition, 50% of girls experienced menstruation in age group 10-12 years. 40% 13-14 years and all the rest were getting above than 15 and above age.

Based on their knowledge among the total 110 respondents, 66.4% respondents reported 20 years is an appropriate age at marriage for female and 25 years for male. Moreover, the rest reported without categories between sexes. 15.5% said the ages 20-25 years as appropriate to get married.

As per knowledge of family planning methods, among the 110 respondents, 99.1% of the respondents have knowledge about condom, and 98.2, 88.2, 96.4, 84.5, and 91.8% have knowledge about pills, IUD, Norplant, and inject able respectively. Eighty percentage have knowledge about the permanent method of female sterilization and 85.5% have knowledge males Out of total 110 respondents, 91.8% of the respondents knew about attitude towards the need of RH knowledge in the adolescent period. They were raising the needs of RH knowledge at the time of adolescent. The respondents who were responses yes, 24.8% were given the reason for needs of RH knowledge is to be aware for the further RH problems. Similarly, some of them gave the reasons as: to maintain the quality-of-life 37.6%, to know the physical changes 5% and to be safe from STIs and HIV/AIDS.

There is positive signal in the case of knowledge and attitude on reproductive health. The background characteristics are not found affecting the knowledge of reproductive health because almost all respondents have knowledge about the matter. All caste and ethnic groups as well as religious groups have equal knowledge and age and household facilities have no effects in respondents' knowledge of RH. Knowledge on family planning methods, birth spacing, appropriate age at marriage, and HIV/AIDS were found well. Similarly, respondents have also better knowledge about other components of RH such as infertility, safe motherhood, transmission and prevention of STIs and HIV, physical change, and menstruation cycle. However, few percentages of respondents have no knowledge about the RH matter. And some of them did not feel the need of RH knowledge in the adolescence period. Most of the respondents have positive attitude towards the need of RH knowledge. Therefore, the study concludes that higher secondary school girl students have better knowledge of RH components but the depth knowledge of RH is essential to them.

## References

Acharya, A. (2007). Impact of information, education and communication on adolescent and sexual knowledge*, Nepal Population Journal*, Volume II, Kathmandu: CPED.

Brooks, J., and Furstenberg, F.F. (1989). Adolescent sexual behavior. *Am Psychol*, Vol. 44:249–257.

Bruckner, H., Martin, A., and Bearman, P.S. (2004). Ambivalence and pregnancy: adolescents' attitudes, contraceptive use and pregnancy. *Prospect Sex Reprod Health*. 248–257.

CBS. (2011). *Population monograph of Nepal, Volume I and II,* Kathmandu: CBS.

Cummings, T., Auerswald, C.L., and Ott, M.A. (2014). Factors influencing abstinence, anticipation, and delay of sex among adolescent boys in high–sexually transmitted infection prevalence communities. *Adolesc Health*, Vol. 54 593–598.

Gavin, L., Moskosky, S., and Carter, M. et al. (2014). Providing quality family planning services. *MMWR*, Vol. 63 1–54.

Greene, M.E., and Biddlecom, A.E. (2000). Absent and problematic men: Demographic accounts of male reproductive roles. *Population and development review* Vol. 26, 81–115.

ICPD. (1994). *Programme of Action.* Adopted at the international conference on population and development: New York, UNFPA.

NDHS. (2006). *Nepal demographic and health survey, 2006:* Kathmandu, MOHP.

New ERA. (2007). *Family health division. Implementation guide on adolescent sexual and reproductive health for district health managers.* Kathmandu: Department of Health Services, Ministry of Health and Population.

New ERA. (2012). Ministry of health and population. *Nepal demographic and health survey 2011*. Kathmandu: Nepal Ministry of Health and Population, New ERA, ICF International.

Panta, P. D. (2001). Adolescent reproductive health in Nepal. *Population and development in Nepal*, Vol. 8 (CDPS TU: Kathmandu), 13-26.

Pathak, R. S. (2006) Adolescent reproductive health and rights in Nepal. *Nepal Population Journal*, Vol. 12, 19-32.

Saewyc, E.M. (2012). What about the boys? The importance of including boys and young men in sexual and reproductive health research. *Adolesc Health*, Vol.51, 1–2.

UNFPA. (2003). *State of world population*. New York: UNFPA.

WHO. (1995). *Health needs of adolescents*. Geneva: World Health Organization (WHO).

WHO. (2011). *Health needs of adolescents*. Geneva: World Health Organization (WHO).