

## KAP gap about Contraceptives among students of class x and xi of different schools of Nalanda District

Suman Kumar<sup>1</sup>, Akhilesh Kumar<sup>2\*</sup>

<sup>1</sup>Associate Professor, Department of Community Medicine, Vardhman Institute of Medical Sciences, Pawapuri, Nalanda, Bihar, India

<sup>2</sup>Tutor, Department of Community Medicine, Vardhman Institute of Medical Sciences, Pawapuri, Nalanda, Bihar, India

Received: 03-11-2020 / Revised: 31-12-2020 / Accepted: 01-02-2021

### Abstract

**Background:** Unintended pregnancies resulting in several maternal morbidities and mortalities are still a major public health challenge in most parts of the world. Female secondary school students are particularly vulnerable due to their engagement in unsafe sex and low uptake of family planning services. **Aim and objective:** This study was aimed to examine KAP gap about Contraceptives among students of class x and xi of different schools of Nalanda District. **Material and methods:** This was a descriptive cross sectional study conducted in the Department of Community Medicine, Vardhman Institute of Medical Sciences, Pawapuri, Nalanda, Bihar, India from October 2019 to September 2020. Total 400 school students from Nalanda district were included in this study. Information about the study was explained to participants and informed written consents were sought from each student (16-19 years old) or their guardians/parents (14-16 years old). **Results:** Out of 400 students most participants, 250 (62.5 %) were aged between 14 and 16 years and 310 (77.5 %) were Hindus. Students in class 10<sup>th</sup> were, 260 (65 %), and 11<sup>th</sup> 140 (55 %). 42 (21%) of the respondents have had sexual intercourse in their life time; about 32 (76.19) were by their consent and about 10 (23.81) were forced. Of those who had forced sex, student peers 28 (66.67%), unknown persons 14 (33.33%) were committing for majority of forced sex. Those who practiced sexual intercourse 24 (12%), only 20 (10%) of them had used emergency contraception and oral contraceptive pills were the only emergency contraception used. Of those who have used ECs 12 (60%) of them used with correct time and half of them were advised by the male partner. Some of the reasons for not using emergency contraception were fear of social stigma 11 (55%). Knowledge of Emergency Contraceptives 178 (89%) of respondents who know about ECs, 125 (62.5%) agreed to use ECs when they practice unintended sexual intercourse, 160 (80%) gave their opinions to advise their friends to use ECs, 106 (53%) of respondents were replied to agree with increment of prevalence of HIV/AIDS and other STIs when emergency contraceptive use in the society increases. **Conclusion:** Most school students in Nalanda District do not utilize family planning services despite of adequate level of knowledge on FPS. Interventions to improve utilization of FPS among secondary school students should address barriers to low utilization of FPS mentioned in this study.

**Keywords:** UNFPA, UNAIDS, WHO

This is an Open Access article that uses a fund-ing model which does not charge readers or their institutions for access and distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>) and the Budapest Open Access Initiative (<http://www.budapestopenaccessinitiative.org/read>), which permit unrestricted use, distribution, and reproduction in any medium, provided original work is properly credited.

### Introduction

Globally, unintended pregnancies resulting in abortions and myriad abortion-related complications is now a major reproductive and public health challenge. This problem affects millions of women worldwide and has been identified as one of the leading causes of maternal morbidities and mortalities. According to World Health Organization (WHO), about 16 million girls aged 15-19 and about one million girls less than 15 years of age give birth every year while about three million girls aged 15- 19 undergo unsafe abortion yearly[1]. Moreover, about 75 million of the estimated 180-200 million pregnancies that occur annually in the world are unintended and most of these pregnancies occur in adolescents[2]. On the average 56 million induced abortions occur worldwide each year[3]. Regrettably, an estimated 2.2 million unintended pregnancies occur annually among adolescents in subSaharan Africa and almost 60 percent of unsafe abortions in Africa are among women aged 15-24 years[4]. In a study among in-school adolescents in eight African countries by Peltzer K, not less than 27.3% of the respondents had experienced sexual debut before age 15[5]. In Nigeria, not less than

60% of the 600,000 induced abortions occurring annually are found among adolescents while 250 out of 1000 adolescent pregnancies end in unsafe abortion[6].

Despite the fact that India was the first country in the world to implement a national population control programme in 1952, the country is still struggling to contain the baby boom. A lot of efforts and resources have gone into the National Family Welfare Programme but the returns are not commensurate with the inputs. The programme has targeted eligible couples in its efforts to control the population. The United Nations Fund for Population Activities (UNFPA) notes that future population trends will hinge on the fertility decisions of today's men and women aged 15-24 years and on their ability and freedom to act on those decisions[7]. Concern about adolescent fertility arises from its health implications both for the mother and the child, its demographic implications in societies with rapid population growth and its social development implications. Because of the young age structure of India's population, the reproductive attitude and behaviour of teenagers are likely to have an important impact on overall reproductive health, demographic and social outcome. Adolescent sex and exposure to the risk of pregnancy has attracted considerable research attention to understand its magnitude and address it as a problem[8].

Globally, adolescent girls are probably the most vulnerable group as they are victims of early marriage, early and frequent child bearing,

\*Correspondence

Dr. Akhilesh Kumar

Tutor, Department of Community Medicine, Vardhman Institute of Medical Sciences, Pawapuri, Nalanda, Bihar, India.

E-mail: [akumardmch02@gmail.com](mailto:akumardmch02@gmail.com)

unsafe abortions all of which lead to high morbidity and mortality (UNAIDS, 2011). In fact pregnancy complications and sexually transmitted diseases during adolescence can permanently affect the future reproductive capacity of the girls as well as the future of a nation[9].

Statistics done on unplanned pregnancy showed that the rate of unplanned pregnancies varies around the world. The number is particularly high among teenagers and poor sectors of the population, but it is also seen among women age greater than 35, both single and married. His statistics revealed that even though the total number of unplanned pregnancies has decreased over the past few decades, the percentage remains high among teenagers[10] who could be due to gap in awareness, mal attitudes towards contraception, low accessibility or as a result of sexual assault. At times, the knowledge and practice might be there but no contraceptive is 100% effective and it is always very crucial to have EC as a backup method[11].

This is study come up with information related to KAP of school students in Nalanda district, Bihar which could be used as base-line information for researchers, local health planners and identifying factors that hinders the utilization of EC when necessary, and suggests possible solution that enhances EC utilization. This study was aimed to assess the knowledge, attitude and practice of school students regarding contraception.

#### Material and methods

This was a descriptive cross sectional study conducted in the Department of Community Medicine, Vardhman Institute of Medical Sciences, Pawapuri, Nalanda, Bihar, India from October 2019 to September 2020, after taking the approval of the protocol review committee and institutional ethics committee. After taking informed consent detailed history was taken from the patient or relatives.

#### Methodology

400 school students from Nalanda district were included in this study. Information about the study was explained to participants' and informed written consents were sought from each student (16-19 years old) or their guardians/parents (14-16 years old).

A multistage random sampling method was used as follows: All secondary schools in Nalanda district in Bihar, India formed the primary sampling frame and were clustered according to boys only, girls only and co education secondary schools. The researchers purposively sampled 2 boys' school, 3 girls' schools and 5 co-education schools and a total of 10 schools were sampled. Individual students were recruited into the study using systematic random sampling, whereby every stream in a school formed a secondary sampling frame. Thereafter, the sampling interval was calculated based on a 10% of the school population. The result was then divided by the number of the streams in the school to determine the sample size per class. The sampling interval (n) was then calculated by dividing the number of students in a stream by the sample size. The first student was selected blindly using a table of random numbers after which the remaining students were selected at regular intervals (n) from the secondary sampling frame. This process was continued per stream until the required school sample size was achieved.

Data was collected using a pre-tested self-administered questionnaire to elicit response on demographic characteristics; knowledge, attitude and practices of adolescents on family planning services. Students' ages were obtained from the school registers during the day of the survey, before they were placed in the secondary sampling frame.

#### Statistical analysis

Completed questionnaires were coded and spreadsheets were created for data entry. The data was analyzed using SPSS 19 (SPSS Inc. Chicago, IL, USA) Windows software program. Descriptive frequencies were expressed using mean and standard deviation.

#### Results

**Table 1: Socio-demographic profile of students (n=400)**

Parameter	Response	Frequency	Percent
Sex	Male	200	50.0
	Female	200	50.0
Age	14-16	250	62.5
	16-19	150	37.5
Education level	10 <sup>th</sup>	260	65
	11 <sup>th</sup>	140	35

A total of 400 students were included in the study, comprising of equally distribution of female and male participants. Most participants, 250 (62.5 %) were aged between 14 and 16 years and 310 (77.5 %) were Hindus (Table 1). Students in class 10<sup>th</sup> were, 260 (65 %), and 11<sup>th</sup> 140 (35 %).

42 (21%) of the respondents have had sexual intercourse in their life time; about 32 (76.19) were by their consent and about 10 (23.81) were forced. Of those who had forced sex, student peers 28

(66.67%), unknown persons 14 (33.33%) were committing for majority of forced sex. those who practiced sexual intercourse 24 (12%), only 20 (10%) of them had used emergency contraception and oral contraceptive pills were the only emergency contraception used. Of those who have used ECs 12 (60%) of them used with correct time and half of them were advised by the male partner. Some of the reasons for not using emergency contraception were fear of social stigma 11 (55%) Table 2.

**Table 2: Contraception usage in emergency situations**

Characteristics	Number	%	
Ever used emergency contraception	Yes	20	10
	No	180	90
Emergency contraception used	OCPs	20	100
	IUCD	0	0
	Do not know/remember	0	0
Time when emergency contraception used	Correct time	12	60
	Incorrect time used	4	20
	Do not know	4	20
Advice for EC usage	Friends female/peers	10	50
	Male friends/partner	5	25
	Health worker	5	25

Reasons for not using EC	Parent	0	0
	Other	0	0
	I don't know from where to get	0	0
	Drugs unavailable	1	5
	Health institute is far to get	3	15
	Services	11	55
	Fear of social stigma	3	15
I don't know its availability privacy not kept	2	10	

Knowledge of Emergency Contraceptives 178 (89%) of respondents who know about ECs, 125 (62.5%) agreed to use ECs when they practice unintended sexual intercourse, 160 (80%) gave their opinions to advice their friends to use ECs, 106 (53%) of respondents were replied to agree with increment of prevalence of HIV/AIDS and

other STIs when emergency contraceptive use in the society increases. Worries with the use of ECs includes, ECs will promote promiscuity 48(24%) and fear of side effect in using ECs 90 (45%) (Table 3).

**Table 3: Contraceptives usage knowledge**

	Agree		Neutral		Disagree	
	No	%	No	%	No	%
If I have unintended sexual intercourse I would use ECPs.	125	62.5	40	20	35	17.5
If a close friend have unintended sexual intercourse I would advise her to use ECPs.	160	80	35	17.5	5	2.5
Widespread use of ECPs will increase the risk of STIs including HIV/AIDS.	106	53	40	20	54	27
Emergency contraception promote promiscuity	48	24	62	31	90	45
Emergency contraception is one way of abortion	64	32	48	24	88	44
I don't want to use emergency contraception for fear of side effects	90	45	50	25	60	30

Association of variables with the outcome variables Chi square test was carried out to determine the association between socio-demographic factors with knowledge of EC among study participants. Students in the age range of 16-19 and above years were high likely (X<sup>2</sup>=5.214, P= 0.0324) to have knowledge of EC than

those age between 14-16 students; class 11<sup>th</sup> students were more likely to have knowledge of ECs than those class 10<sup>th</sup> students (X<sup>2</sup>=12.879 , P=0.005). Respondents who came from the urban area have more knowledge about ECs than those who came from the rural areas (X<sup>2</sup>=11.127, P=0.0012) (Table 4)

**Table 4: Association of variables with the outcome variables**

Variables		Knowledge towards EC					
		Good	Poor	Total	X <sup>2</sup>	d <sub>f</sub>	P-value
		No	No.	No.			
Age	14-16	130	120	250	5.214	1	0.0324
	>16	84	66	150			
	Total	214	186	400			
Religion	Hindus	288	22	310	1.655	3	0.6245
	Muslims	48	12	60			
	Others	24	6	30			
	Total	360	40	400			
Place of origin	Rural	90	40	130	11.127	1	0.0012
	Urban	140	130	270			
	Total	230	170	400			
Class of study	10 <sup>th</sup>	145	115	260	12.879	1	0.0005
	11 <sup>th</sup>	85	55	140			
	Total	230	170	400			

**Discussion**

In India, some studies have been carried out in Delhi and Ludhiana in the past. Aggarwal O et al[12] in Delhi conducted the survey in 500 undergraduate students of the medical colleges of Delhi and reported the knowledge regarding, contraception to be 83.5%, which was comparable to the study conducted in Ludhiana by Benjamin et al[13] among 527 senior secondary school children, where 87% were aware of contraception. Similar results were reported by Arowojolu AO (23) et al[14] from Nigeria, where a survey of 2388 Nigerian undergraduate students showed the contraceptive knowledge level to be 87.5%.The results of study shows 42 (21%) of the total number of

study participants have practiced sexual intercourse in their life time. This result is somewhat lower than similar study conducted on higher education students in Addis Ababa which (19.5%) of the study participants were sexually active[15].This variation could be due to high number of study participants for the study in Addis Ababa and only 200 female students for this study . The result was lower than the result of study conducted in Nigerian female undergraduates from whom 43% of the respondents were sexually active[16].This variation might be due to age difference, marital status and possibly from level of education. Among respondents who have practiced sexual intercourse 23.81% of them have had sex without the

permission of the females (forced sex). Of the forced sex 12% resulted in unwanted pregnancy from which 44% of the pregnancies were continued to delivery while 56% have gone to induced abortion. Similar study in Addis Ababa showed high rate of unwanted pregnancy (73.5%) higher rate of induced abortion (71.7%) from which 29% were under unsafe condition. The possible explanation for low rate of unwanted pregnancy, low rate of induced abortion and high rate of delivery in this study could be provision of health information by students from a community based education as CBTP, TTP, and SRP. The result from this study revealed that only 89% of the respondents had ever heard about emergency contraception's. This is somewhat higher than the reports from Kenya (Nairobi), on female who come for family planning service (20%), Adama University on undergraduate female students (46.8%) of Jimma University on undergrad female students (41.9%). This variation could be due to the high promotion of family planning service including EC in the study area and the presence of clubs in the school which work on prevention of HIV/AIDs and unwanted pregnancy among youth.

In this study pills are the most widely known EC method almost by all respondents who know EC. The most common source of information was from health workers education (25%), from mass media 25%, peer discussion 50%. The study done at Mekelle University revealed that the most common source of information were friends and peer discussion in 36.5%, mass media 22.8% and about 23% were from health institutions. The variation in this study is probably from, most of the study participants were from urban, provision of information and service by HEWs by home to home service and by provision of information by students from MU through community based education program.

#### Conclusion

Most school students in Nalanda District do not utilize family planning services despite of adequate level of knowledge on FPS. Interventions to improve utilization of FPS among secondary school students should address barriers to low utilization of FPS mentioned in this study.

#### References

- World Health Organization. Fact sheet; Adolescent pregnancy. Available at <http://www.who.int/mediacentre/factsheets/fs364/en/> Accessed on 14th August 2017.
- UNDP/UNFPA/WHO/WORLDBANK. Special program of research development and training in human reproduction: social science initiative on quality of care and reproduction, 2003.
- World Health Organization. Fact sheet; Preventing unsafe abortion. Available at <http://www.who.int/mediacentre/factsheets/fs388/en/> Accessed on 14th August 2017.
- World Health Organization. Unsafe Abortion: global and regional estimates of the incidence of unsafe abortion and associated mortality in 2003. Geneva: World Health Organization 2005.
- Peltzer K. Early sexual debut and associated factors among in-school adolescents in eight African countries. *Acta Paediatr.* 2010; 99(8):1242-7.
- Federal Ministry of Health. Federal Office of Statistics (FOS). National demographic and health survey (NDHS). Lagos: Federal Office of Statistics 2003
- Update. Billions and Billions of People. *International Family Planning Perspectives.* 1998; 24:154.
- Jones EF, Forrest JD, Goldman N, Henshaw SK, Lincoln R, Rosoff JI, et al. Teenage pregnancy in developed countries: determinants and policy implications, *Family Planning Perspectives.* 1985; 17:53-63.
- Paluku LJ, Mabunza LH, Maduna PMH. Knowledge and attitude of schoolgirls about illegal abortions in Goma, Democratic Republic of Congo. *African Journal of Primary Health Care & Family Medicine* 2, Art.# 78 doi: 10.4102/phcfm.v2i1.78.
- Chris McCourt, Jane Weaver, Helen Statham, Sarah Beake, Jenny Gamble, et al, (2007) Elective Cesarean Section and Decision Making: A Critical Review of the Literature.
- Abitbol MM, Castillo I, Taylor UB, Rochelson BL, Shmoys S, et al. (1993) Vaginal birth Diercesarean section: the patient's point of view. *AMFam\_physician,* 47: 129-134.
- Aggarwal O, Sharma AK, Chhabra P. Study in sexuality of medical college students in India. *J Adolesc Health.* 2000; 26: 226-9.
- A.I. Benjamin, P. Panda, Shavinder Singh, A.S. Bhatia Knowledge & Attitude of Senior Secondary School Students of Ludhiana Regarding Population Control & Contraception. *Indian Journal of Community Medicine.* 2010; 26(4):(2001-10 - 2001-12).
- Arowojolu AO, Ilesanmi AO, Roberts OA, Okunola MA. Sexuality, Contraceptive Choice and AIDS Awareness among Nigerian Undergraduates. *African Journal of Reproductive Health* 2002; 6:60-70.
- Pai, Madhukar. "Medical Interventions: Caesarean Sections as a Case Study". 2010, 19.
- Economic and Political Weekly. 35:2755-2761.

**Conflict of Interest: Nil**

**Source of support: Nil**