



SEXUAL CONCEPTS PREDICAMENT AMONG ADOLESCENTS IN MEERUT: MYTHS AND FACTS VIA EDUCATION INTERVENTION APPROACH

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ABSTRACT

Introduction: Adolescents during this period likely to experiment and engaged various types of risky behaviours that have the potential to influence the quality of health. Objective: 1 To explore the knowledge and perception about reproduction concept, and to explore taboo and myths related to sexual development, masturbation, menstruation and contraceptive methods. **Material and Methods:** Study Design: Quasi Experimental Study, Sampling: from the selected sections, all students were included by complete enumeration technique, total sample size was 57. **Data Collection Tool:** with pre validated and pretested questionnaire data pre and post was collected concerning various aspects of sexual health and myths associated. Educational intervention through large group discussion with expert on the topic followed by problem solving approach in the group discussion about positive sexuality and healthy sexual practices. Post educational data was collected after one week. **Results:** (51.85%) of male and (53.33%) of female students were able to tell about reproductive cell i.e. sperm and ovum. 2/3rd male students were aware of pornographic material available. The most important source for their correct knowledge on reproduction concept [33.33% vs 36.67%] as well as for puberty change [48.15% vs 50.00%] in male and female students was their teacher. 33.33% female students could correctly tell us that women can be pregnant if had sexual contact in her middle of the menstrual cycle which improved to female (70%) students [Female: Z proportion 2.87 P<0.5]. 62.96% male students and half of the female students mentioned that masturbation leads to impotency in male.

KEYWORDS :

INTRODUCTION

Adolescence serves as a crucial transitional period between childhood and maturity. Health during adolescence is critical for reaching maximum development potential, maintaining well-being throughout life, and reducing the risk of infections and diseases.(1). It is also known as the 'age of opportunity,' because it is at this time when correct knowledge, skills, and healthy behaviours are developed, which will pay off later in an individual's life and contribute to the growth and development of a nation². Adolescent health and well-being are also important drivers of the Sustainable Development Goals (SDGs), which address health, nutrition, education, gender equality, and food security.(3)

Adolescence is a developmental stage that begins with puberty and concludes with adulthood. The World Health Organization (WHO) defines adolescence as being between the ages of 10 and 19 years and youth as being between the ages of 15 and 24, while young people are defined as being between the ages of 10 and 24 years. Early adolescence (10-14 years) is characterised by puberty and sexual development, while late adolescence (15-19 years) is marked by pubertal maturation and the transition to adulthood. It is a phase of fast physiological, sexual, neurological, and behavioural changes that prepares young people for adult duties and responsibilities, such as transitioning to work and financial independence, and forming life partnerships. Rapid physical, cognitive, social, and emotional changes are occurring in this population. Sexual health is considered to be a state of physical, emotional, mental, and social well-being in relation to sexuality and not merely the absence of disease or infirmity as defined by the WHO.[1]

It is well known that the adolescent life and capabilities are shaped by variety of contextual and cultural factors. In low and middle income countries, many specific factors affect both the health and social development and the capabilities of adolescents.(4)(5) Next are factors at the community and the household/family level, such as household income, gender equity, emotional and physical safety, engagement in learning, family cohesion, and other such socio-economic factors that influence their behavioural pattern. Finally, there are factors that are specific to adolescents, including physiological and psychosocial characteristics, such as puberty status, social networks, sense of wellbeing, and decision-making skills, in addition to access to quality services.(5)

Because of their sense of freedom and lack of access to adequate and relevant knowledge on sexual and reproductive health, many teenagers experiment and engage in some risky sexual behaviours. [6] Risky behaviours among adolescents, such as unprotected sexual activities, are a major public health problem. According to the literature, the majority of teenagers in Africa and Europe engage in sexual activity between the ages of 12 and 19, with the majority of them making their sexual debut by the age of 16 [5, 6]. Therefore Sex education should treat sexual development as a normal, natural part of human development. Various literature from time to time have suggested that adolescents during this period likely to experiment and engaged various types of risky behaviours that have the potential to influence the quality of health. So it becomes imperative to provide sex education throughout a student's grade levels, with information and content appropriate and acceptable cultural background.

Therefore, this study focuses on

1. To explore the knowledge and perception about reproduction concept, masturbation, menstruation and contraceptive methods and sexual social site.
2. To find out the taboo and myths related to sexual development, masturbation, menstruation and contraceptive methods

METHODOLOGY

Study Setting: Swami Vivekananda Subharti Institute of Fine Arts and Fashion

Study Population: students of Institute of Fine Arts and Fashion Designing.

Study Design: Quasi Experimental Study

Study Period: 2 months [September 2020-March 2021]

Sampling Technique and Sample Size: From 1st year students of Swami Vivekananda Subharti Institute of Fine Arts and Fashion one class section was selected by Simple random Sampling Technique. From the selected sections, all students were included by complete enumeration technique, present at the time of data collection. Total sample size was 57, out of them 27 were male and 30 were female students.

Data Collection Tool: Pre validated and Pretested questionnaire was used for collection of data

Data Collection Technique: A visit to the school under study was conducted. The students were first oriented about the activity to be conducted and then a questionnaire was distributed to them and asked

to fill it up honestly using best of their knowledge. The questionnaire will include questions concerning various aspects of sexual health like reproductive concept, sources for their knowledge, myths associated with menstruation, masturbation and development after sexual contact. After the collection of questionnaires, the students were educated through large group discussion with expert on the topic followed by problem solving approach in the group discussion about positive sexuality and healthy sexual practices.

The students were visited again in a week and a same questionnaire was provided to them again to assess the extent of improvement in their knowledge and perception related to the taboos as barrier for positive sexuality and healthy sexual practices. The pre intervention and post intervention knowledge and perception of students was analyzed and appropriate statistical test was applied.

Result

Study results is discussed in two section, first about their correct knowledge on reproductive health and its source, and in second section myths perceived by adolescents for sexual contact, menstruation and masturbation is discussed before and after intervention.

Knowledge

Knowledge of the adolescents was explored about reproduction concept of sperm and ova, contraception, contraception methods and about pornography.

Table :1 Distribution Of Male And Female Students For Their Knowledge (n=57)

Knowledge about	Gender	Yes		No	
		%	Freq.	%	Freq.
Reproduction concept	Male (n=27)	51.85%	14	48.15%	13
	Female (n=30)	53.33%	16	46.67%	14
Contraception	Male (n=27)	77.78%	21	22.22%	6
	Female (n=30)	93.33%	28	6.67%	2
Pornography	Male (n=27)	66.67%	18	33.33%	9
	Female (n=30)	33.33%	10	66.67%	20

Knowledge about reproduction concept: Question was asked if they know about male and female reproductive cell i.e. sperm and ovum and about pregnancy; about half (51.85%) of male and (53.33%) of female students were able to tell it correctly.

Knowledge about Contraception: Students were asked if they knew about any kind of contraception for prevention of pregnancy. Surprisingly, almost all female students [93.33%] had knowledge about any kind of contraception whereas 77.78% male students could tell about it correctly. Reason could be burden of unwanted pregnancy has to bear by girl only in the society, so they were more aware about it.

Knowledge about Pornography: On asking about pornography material available online or offline, 2/3rd male students were aware of such material available, but only one third female students were able to endorse about it. It shows restricted behaviour pattern of the society for gender.

Source of Knowledge

Table:3 Distribution Of Male And Female Students For Their Myths Related To Sexual Contact (n=57)

Myths related to	Gender	Pre intervention				Post intervention				Z value	P Value
		Correct		Incorrect		Correct		Incorrect			
		%	Freq.	%	Freq.	%	Freq.	%	Freq.		
Women get Pregnant with sexual physical contact with male	Male (n=27)	59.23%	16	40.74%	11	80.28%	23	11.42%	4	1.676	0.046
	Female (n=30)	76.67%	23	6.66%	7	83.33%	28	5.66%	2	0.645	0.261
Women can be pregnant if she has physical contact in middle of her menstrual cycle	Male (n=27)	48.14%	13	51.85%	14	81.48%	22	18.52%	5	2.54	0.006
	Female (n=30)	33.33%	10	66.67%	20	70%	21	30%	9	2.87	0.002
Women stop growing after having physical contact with man	Male (n=27)	59.25%	16	40.74%	11	70.37%	19	29.63%	8	0.846	0.2
	Female (n=30)	63.33%	19	36.66%	11	66.67%	20	33.33%	10	0.324	0.375

On asking whether a women will be pregnant with sexual physical contact with male partner, 59.23% male students and 76.67% female students correctly responded to it before educational intervention which had increased to more than 80% in both category of students after intervention and the difference in knowledge was significant for male students only.

It further endorses our finding that female students are more aware about how they can become pregnant. [Male: Z proportion value

Adolescents students were explored for their source of knowledge for reproduction concept, contraception and puberty changes they face during adolescent period.

Table:2 Distribution Of Male And Female Students For Their Source Of Knowledge During Adolescence (n=57)

Variable	Source of Knowledge	Male (n=27)		Female (n=30)	
		%	Freq.	%	Freq.
Reproduction concept	Teacher	33.33%	9	36.67%	11
	Mother	14.81%	4	6.67%	2
	Other family members	7.41%	2	6.67%	2
	Books/ magazines and Video	14.81%	4	26.67%	8
	Friends	25.93%	7	20.00%	6
	Doctor	3.57%	1	3.33%	1
Puberty changes during adolescence	Teacher	48.15%	13	50.00%	15
	Mother	33.33%	9	16.67%	5
	Other family members/ friends	3.70%	1	6.67%	2
	Books/ magazines and Video	11.11%	3	16.67%	5
	Doctor	3.70%	1	10.00%	3

Source of Knowledge about reproduction concept: The most important source for their correct knowledge was their teacher [33.33% vs 36.67%] in male and female students; followed by friends [25.93%] for male students and magazines and books [26.67%] for female students. Mother is the third choice for discussion for male students whereas friends are the third choice for discussion on sexual matter among females students, not mother; giving us a surprise note.

Source of Knowledge about Puberty changes: On asking how they obtained information about puberty changes during adolescence; the most important source came out to be teacher both for male and female students [48.15% vs 50.00%]. The second most important source for their correct knowledge was mother; 33.33% for male students and for female students it was mother and books and magazine (each 16.67%). It implies that boys are more comfortable to discuss openly about their changes than girls, even with mother, which needs exploration.

Myths

Myths are the concepts made by adolescents in their mind based on knowledge received and perceived from their sources like friends, books and magazines etc. It may distort and disturb their normal sexual growth psychologically and may also disturb physically if not guided them properly during their adolescent period.

In our study we asked myths and facts related to three segments before and after their educational intervention:

- Myths/ Facts related to sexual contact
- Myths/ Fact related to Menstruation and
- Myths/ Fact related to Masturbation

(a) Myths Related To Sexual Contact

(a) Myths Related To Sexual Contact (n=57)

		Post intervention				Z value	P Value
Incorrect		Correct		Incorrect			
	%	Freq.	%	Freq.	%	Freq.	
1.	40.74%	11	80.28%	23	11.42%	4	1.676
	6.66%	7	83.33%	28	5.66%	2	0.645
	51.85%	14	81.48%	22	18.52%	5	2.54
	66.67%	20	70%	21	30%	9	2.87
	40.74%	11	70.37%	19	29.63%	8	0.846
	36.66%	11	66.67%	20	33.33%	10	0.324
							0.375

1.676, P<0.05]

It was very surprising to observe that 48.14% male students in comparison to 33.33% female students could correctly tell us that women can be pregnant if had sexual contact in her middle of the menstrual cycle. Knowledge in this fact was significantly improved after the educational intervention among male (81.48%) [Male: Z proportion 2.54 P<0.5] and female (70%) students [Female: Z proportion 2.87 P<0.5].

59.25% male students and 63.33% female students do not have myth that female stops growing after physical contact with male partner. After intervention this myth was cleared to 70.37% male and 66.67% female students, more improvement in male in comparison to female students [11.12% vs 3.34%]. But this improvement in their knowledge was not statistically significant. It implies that continuous sexual education talks are needed to clear myth related to this in different approach.

(B) Myths Related to Menstruation: Female students were asked various myths related to menstruation and work or activities to be restricted during menstrual bleed.

Table:4 Table For Myths Related To Menstruation Pre And Post Intervention (n=30)

Myths related to Menstruation		pre		Post		Z value	p Value
		%	Freq.	%	Freq.		
Menstruation is a disease	TRUE	6.66%	2	3%	1	0.7108	0.2389
	False [Correct]	93.33%	28	97%	29		
Menstrual blood comes out of stomach	TRUE	30.00%	9	3%	1	2.8172	0.0024
	False [Correct]	70.00%	21	97%	29		
Menstrual blood contains harmful substances	TRUE	46.66%	14	20%	6	2.2155	0.0132
	False [Correct]	53.33%	16	80%	24		
Work/ Activities allowed during menstruation							
Activity Allowed			No of students			Percentage	
Kitchen work			17			56.67%	
Touch pickle			8			26.67%	
Worship and pray			3			10%	
Perform religious rituals			6			20%	
Bathing and changing clothes daily			18			60%	
Sit/eat/sleep with family members			17			56.67%	

More than 90% girls knew that menstruation is not a disease, it is a physiological phenomena, which was increased to 97% students after intervention. 30 % girls, before intervention, said that menstrual blood comes from stomach, but after educational talk, there was significant improvement for source of blood during menstruation i.e. uterus [27 points] (Z proportion test: 2.8172, $P < 0.05$). Half of girl students (53.3%) could mention correctly that menstrual blood do not contain harmful substance before educational talk. It implies that they carry a taboo mindset for their own physiological bleed; but their knowledge was improved to 80% after talk which was significant (Z proportion test: 2.2155, $P < 0.05$).

The most common allowed activity during menturation was bathing / changing cloth (60%), indicating their awareness for menstrual hygiene practice during that period. Next commonly mentioned activity was any work related to Kitchen and sleeping with family member (56.67% each), which shows that nearly 50% were perceived as untouchable for normal activities during menses.

Most restricted activity during menstruation was to perform worship and Pray (90%) and religious rituals (80%).

(C) Myths Related to Masturbation: With the male and female students, it was explored on following points:

1. Masturbation is a sin.
2. Masturbation leads to impotency
3. Masturbation is associated with mental illness

Masturbation Is A Sin.

Table: 5 Distribution For Myths Related To Masturbation Before And After Intervention

Myths related to Masturbation		Pre intervention		Post Intervention		Z Value	P value
Gender		NO (Correct Option)		NO (Correct Option)			
		%	Freq	%	Freq		
Is a sin	Male [27]	85.18%	23	100%	27	2.0925	0.01831

	Female [30]	10.00%	3	16.67%	5	0.7934	0.21476
Leads to impotency	Male [27]	62.96%	17	85.19%	23	1.8428	0.03288
	Female [30]	50.00%	15	66.67%	20	1.3363	0.09012
Leads to mental illness	Male [27]	48.15%	13	62.96%	17	1.1086	0.1335
	Female [30]	33.33%	10	40.00%	12	0.5631	0.2877
Causes serious damage to health	Male [27]	55.55%	15	74.07%	20	1.3866	0.0823
	Female [30]	66.67%	20	66.67%	20	0	0.5

Option "No" has been considered as it is the correct option.

On asking whether masturbation is a sin or not, 85.18% male students and only 10% female students mentioned it as normal physiological urge before intervention of educational talk. After talk, this awareness was significantly raised to 100% of male students but to only 16.67% of female students. It bring about a core mind set of female students on the surface that masturbation is not a normal thing for a male counterpart.

On asking the effect of masturbation before talk, 62.96% male students and half of the female students mentioned that it leads to impotency in male. This awareness was raised to around 22 points in male and 17 points in female students, but was not significant.

DISCUSSION

Adolescence is a period of transition during which an individual attends the sexual maturity. Sexual development in due course causes many changes in the body and behavior in adolescent age. Adolescent's decisions and behaviour related to sexual matters can have long-lasting implications, and if wrongly informed, they can suffer adverse consequences. Thus, this study was conducted to assess their knowledge about the reproductive health.

Reproductive health issues are bearing a social stigma. The young adolescents feel hesitant in asking about these. Owing to this there a lack of knowledge about reproductive health in the adolescents. In our study most of students gained their knowledge about sexual health from their teachers followed by the peer groups, books, and internet. Various studies across the globe emulated similar findings.(7) On a contrary various studies by Kotecha et al and Francics et al suggested that mass media and books were the major source of information about reproductive health in young population.(8, 9)

Probing further only 50% of the participants were aware of the reproductive concept about the reproductive cells namely sperm and ova. This is far away from the figures of a study conducted by Deepanjali et al in Nagpur where were around 80% secondary school students were able to correctly tell about the reproductive cells.(10) This underlies the importance of incorporating reproductive and sexual in school curriculum.

Adolescent fertility rate is around 27 in India.(11) Thus, there is an imperative need in our country for adequate knowledge about contraceptives amongst youth to avoid the accidental/ adolescent pregnancies. In our study around 85% of the students were aware about the contraceptive measures. This is strikingly higher than the figures quoted in the contemporary studies. A study conducted in rural Vadodara shows that merely 30% of students were aware about the contraceptive measures. (8) High figures in our study can be attributed to the fact that it was carried in a professional college owing to which there is a higher awareness.

There are various myths associated with sexual health. When probed regarding this majority of the females (76.67%) believed that sexual physical contact could result in pregnancy. Post intervention it increased to around 84%. This was contrary to the finding in a study by Deepanjali et al in Nagpur. In this only 41% female could illicit that sexual contact can result in pregnancy.(10) There were certain misconception that female growth stops after having sexual contact were cleared after intervention.

Menstruation is a natural phenomenon but there are numerous taboos surrounding this which exclude girls from many aspects of social and cultural life. Major misconception is that menstruation is a disease. This was refuted in our study with around 94% students felt it was a

natural phenomenon. However various other ill practices such as abstaining from entering kitchen, performing rituals, sleeping separately were also found in our study. Similar myths have been reported in various other studies too.(12, 13) in our study only 10% of were allowed to pray which suggests a staunch religious taboo associated with it.

There is a perception amongst the adolescent boys that masturbation is a sin and it can lead serious ill effect on the health and can cause impotency. Though there is no scientific reason behind it. In our study around 85% boys felt that its natural and is an act to vent out the sexual urge. However different studies suggest that a majority of participants felt it being abnormal.(14, 15). Around half of boys and 66.67% of girls felt that masturbation can cause ill health such as impotency, weakness, fear of change of morphology of penis. Similar concerns of adolescence were also shown in various other studies.(14, 16)

Thus seeing this situation there is a need to create an awareness amongst the adolescence about the reproductive and sexual health. Theirs being a transition phase, if we mitigate to take some measures to eliminate the element of shyness then this could improve their knowledge and eagerness to learn. Government of India has taken an initiative of opening ARSH(Adolescent reproductive and sexual health) clinics at different Primary Health Centres to cater this need. There is also a need to include sexual health in school curriculum and Anganwadi centres can be the place to deal with the queries pertaining to adolescent reproductive and sexual health.

CONCLUSION

In 2009 adolescents comprised of 18% (1.2 billion) of world's population, with 88% living in developing countries. With 243 million, India has the largest share for adolescents population; 50% population living in urban areas.

Comprehensive sexual health education covers a range of topics on facts and myths related to puberty and reproduction, contraception and condoms, relationships, menstrual hygiene, body image, gender identity and sexual orientation so that life skill building could be enhanced to make informed decisions regarding sex and their sexual health

Therefore, during in this phase of transition, marked by significant changes in mental development, sexual development, and physical growth, many adolescent experiment new experience with incomplete or incorrect knowledge which may prove them dangerous behaviours. Therefore, it has become imperative as need of changing time to provide correct reproductive health for correct reproductive behaviour.

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