

Reproductive health awareness among adolescents attending gynecology and pediatrics OPD at tertiary centre

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Abstract

Background: The sexual and reproductive health needs of very young adolescents aged 10–14 in developing countries require increased attention.⁽⁹⁾This study aims to assess the awareness of adolescents about puberty changes

Method: Adolescent girls attending our OPD were asked to attend to a questionnaire with a set of 14 questions and their awareness was assessed based on a “yes” or “no” response.

Results: We found that there was significant association between reproductive health awareness and education and age with little knowledge about contraception, teenage pregnancies and its complications.

Conclusion: There is an increasing need to educate the most vulnerable population regarding teenage pregnancies, unsafe sexual practices and and contraception to prevent them from contracting sexual transmitted diseases and other such complications.

Keywords: adolescents, health awareness, gynecology and pediatrics OPD

Introduction

Adolescence is a critical period of human development with psycho-physiological, cognitive and emotional development, with sexual and reproductive maturation. It's a “second sensitive developmental period” after early childhood and represents the need for effective promotion of health ^[2]. Adolescence (10-19 years) make up for 16% of the world's population ^[2]. The Sustainable Development Goal targets to achieve universal health coverage, including financial risk protection, access to good health-care services, quality and affordable essential medicine, vaccines for all. The Sustainable global and political momentum behind Universal Health Coverage (UHC) signifies opportunities to build collective global and national action towards achieving comprehensive health care for adolescents ^[2].

Adolescents go through a myriad of physical, hormonal, psychological, behavioral and social developmental changes with peer pressure having both positive and negative impact. The constant dilemma is whether to follow cultural norms or standards set by their peer groups. Prioritizing acceptance by their peers can expose them to compromising health such as

substance abuse (like alcohol and smoking) or involvement in harmful sexual practices leading to an increase in teenage pregnancy or sexually transmitted disease. A significant increase in incidence of self-harm and suicide with non-traumatic events are seen in adolescents due to sensitivity to casual remarks ^[2]. Family plays a pivotal role and significantly impacts adolescent health.

Adolescent gynecology is an evolving branch of medicine which intersects with Pediatrics known as Pediatrics and adolescent gynecology (PAG) which deals with dermatology, urology, endocrinology, surgery, oncology, psychiatry, genetics and physical therapy. Common adolescent concerns include - Pubertal issues like adolescent growth and development, pubertal delay or precocity, weight and height issues sexual and reproductive health like gynecological and menstrual problems, contraception, pregnancy testing and option of MTP, STD/HIV Screening counseling and treatment and psycho-social issues like adjustment problems, growingup issues, depression, anxiety, bipolar, personality disorder and substance abuse including tobacco and alcohol ^[8].

Adolescent health is neglected due to poor awareness and social taboos ^[4]. Rapid growth and development demand nutrient needs resulting in greater incidence of anemia and micronutrient deficiencies in the impoverished. While, obesity and related complications, addictive habits impacts health of the adolescent in the affluent society ^[1]. Gender bias is an added bane in this phase of life. Females are at a higher risk of vulnerability to sexual abuse and neglect by some sections of the society making matters worse.

Technological development, access to information makes them self-reliant and independent, provided used for the right purpose. However, can often lead to bullying or sexual abuse. Therefore technology acts as a double edged sword ^[2].

Annually an estimated 1.2 million adolescents die, largely from preventable causes. This could be due to a multitude of reasons such as lack of awareness of facilities and help that they could seek. Inability to put forth their issues and lack of awareness of changes taking place in this crucial phase of life adds to the woes. Awareness of sexual maturity is a part of normal process of development and should be embraced with a positive attitude ^[2]. This study aims in assessing the awareness of the process of sexual development among adolescents.

Aims and Objectives

A. Primary objective is to assess

- Awareness about physiological changes in puberty among adolescents attending OPD of Dr. B R Ambedkar College and Hospital.
- Knowledge of intercourse and related problems among adolescents attending OPD of Dr. B R Ambedkar College and Hospital.
- Knowing about contraception among adolescents attending OPD of Dr. B R Ambedkar College and Hospital.

B. Secondary objective

- Educate the adolescent regarding the changes taking place during puberty and embrace the same with a positive attitude
- Extend support by ensuring scientific explanation to various doubts and confusion that they are surrounded with during this phase.

Methods

A Prospective study conducted in adolescent women who attend OPD of Gyencology and

Paediatrics of DR B. R. Ambedkar Medical College & Hospital during the study period of February 2019 to January 2019.

After a written and informed consent they were provided with a questionnaire with a set of 14 questions and their awareness was assessed based on a “yes” or “no” response.

Inclusion criteria

- Adolescents attending OBG and Paediatrics OPD between 10-19 years of age.

Exclusion criteria

- Women who do not consent were excluded from the study

Statistical analysis: Data was entered into Microsoft excel data sheet and was analyzed using SPSS 22 version software. Categorical data was represented in the form of Frequencies and proportions. Chi-Square test was used as test of significance for qualitative data.

Graphical representation of data: MS Excel and MS word was used to obtain various types of graphs such as bar diagram, Pie diagram.

P value (Probability that the result is true) of <0.05 was considered as statistically significant after assuming all the rules of statistical tests.

Statistical software: MS Excel, SPSS version 22 (IBM SPSS Statistics, Somers NY, USA) was used to analyze data.

Study tools

The awareness of reproductive health among adolescents were assessed based on a simple questionnaire with a “yes” or “no” response with a total of 14 questions.

Results

Table 1: Age distribution of subjects

		Count	%
Age	<15 years	29	27.6%
	15 to 17 years	38	36.2%
	18 to 19 years	38	36.2%
	Total	105	100.0%

In the study 27.6% were in the age group <15 years, 36.2% were in the age group 15 to 17 years and 36.2% were in the age group 18 to 19 years.

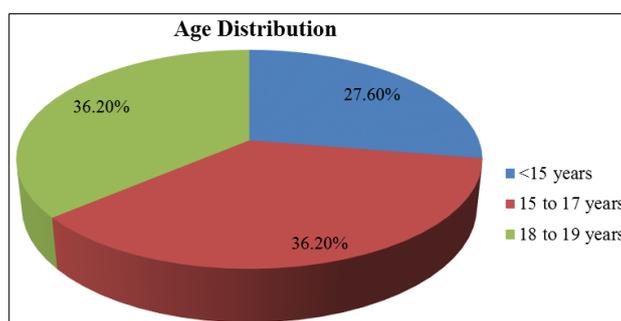
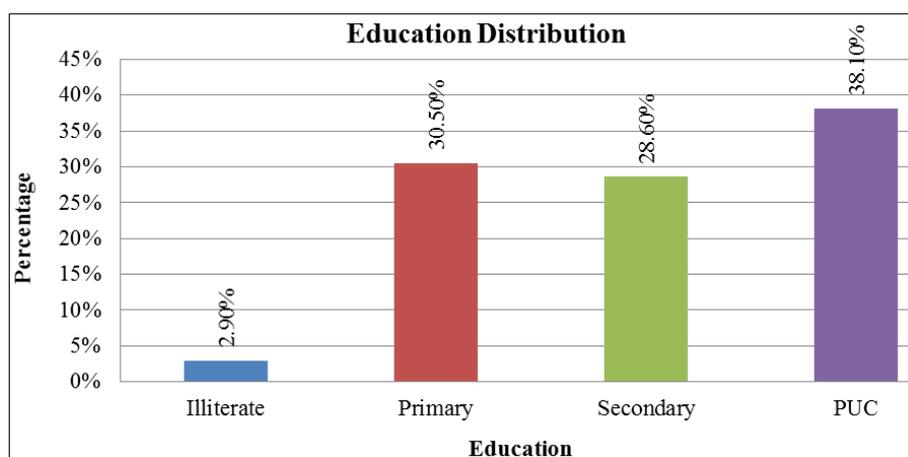


Fig 1: Pie Diagram Showing Age distribution of subjects

Table 2: Education distribution of subjects

		Count	%
Education	Illiterate	3	2.9%
	Primary	32	30.5%
	Secondary	30	28.6%
	PUC	40	38.1%

In the study 2.9% were illiterate, 30.5% studied till primary education, 28.6% till secondary education and 38.1% till PUC.

**Fig 2:** Bar Diagram Showing Education distribution of subjects**Table 3:** Reproductive health awareness distribution among subjects

	No		Yes	
	Count	%	Count	%
Q1. Are you aware of healthy lifestyle and nutrition in adolescence?	30	28.6%	75	71.4%
Q2. Are you aware of physical changes in adolescence?	22	21.0%	83	79.0%
Q3. Are you aware of secondary sexual characters?	28	26.7%	77	73.3%
Q4. Are you aware of legal age of marriage?	34	32.4%	71	67.6%
Q5. Are you aware of HIV and its transmission?	55	52.4%	50	47.6%
Q6. Are you aware of other sexually transmitted diseases?	74	70.5%	31	29.5%
Q7. Are you aware of methods of prevention of STD's?	72	68.6%	33	31.4%
Q8. Are you aware of different methods of contraception?	66	62.9%	39	37.1%
Q9. Are you aware of emergency contraception?	79	75.2%	26	24.8%
Q10. Are you aware of abortion and its risks?	69	65.7%	36	34.3%
Q11. Are you aware of teenage pregnancy and its complications?	78	74.3%	27	25.7%
Q12. Are you aware of molestation and sexual abuse?	52	49.5%	53	50.5%
Q13. Are you aware of psychological problems associated with sexual abuse?	61	58.1%	44	41.9%
Q14. Are you aware of social implications of unsafe sex?	58	55.2%	47	44.8%

In the study 71.4% had awareness of healthy lifestyle and nutrition in adolescence, 79% had awareness of physical changes in adolescence, 73.3% had awareness of secondary sexual characters, 67.6% had awareness of legal age of marriage, 47.6% had awareness of HIV and its transmission, 29.5% had awareness of other sexually transmitted diseases, 31.4% had awareness of methods of prevention of STD's, 37.1% had awareness of different methods of contraception, 24.8% had awareness of emergency contraception, 34.3% had awareness of abortion and its risks, 25.7% had awareness of teenage pregnancy and its complications, 50.5% had awareness of molestation and sexual abuse, 41.9% had awareness of

psychological problems associated with sexual abuse and 44.8% had awareness of social implications of unsafe sex.

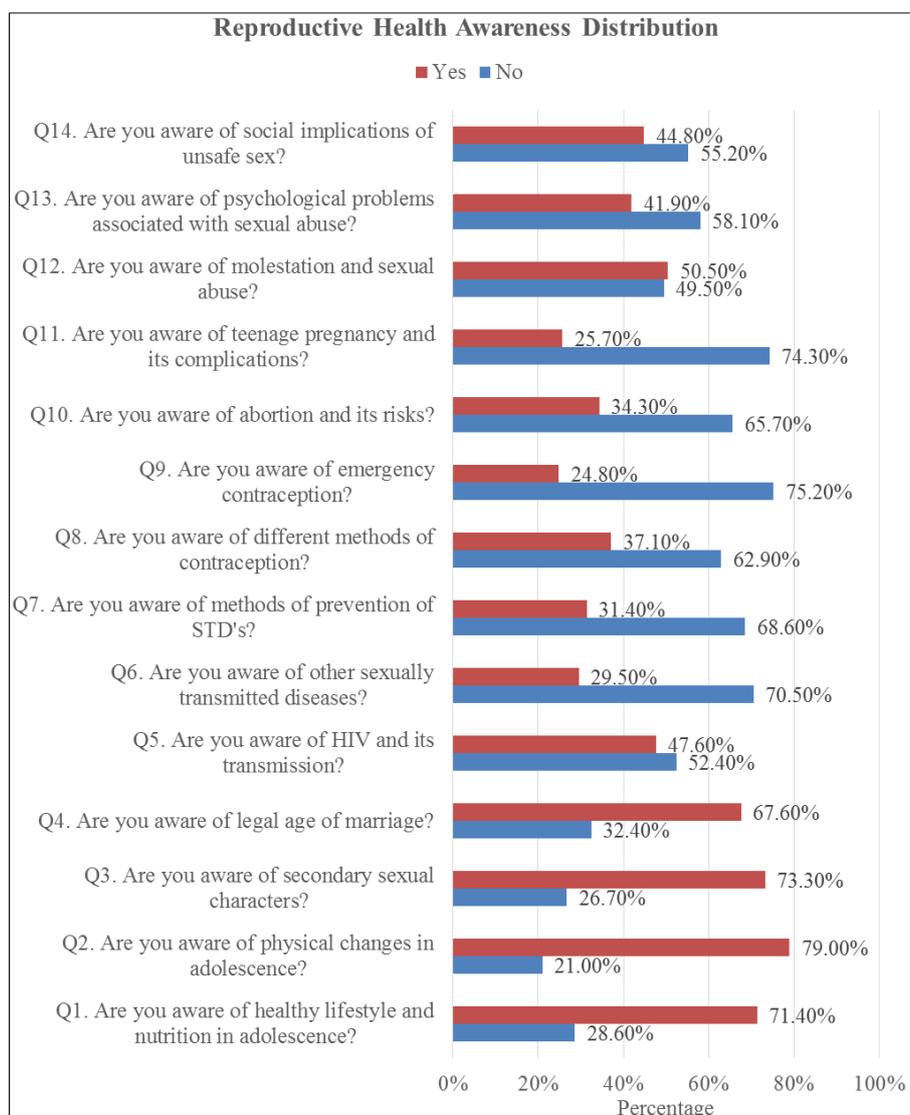


Fig 3: Column Diagram Showing Reproductive health awareness distribution

Table 4: Association between Age and reproductive health awareness

		Age						P value
		<15 years		15 to 17 years		18 to 19 years		
		Count	%	Count	%	Count	%	
Q1. Are you aware of healthy lifestyle and nutrition in adolescence?	No	16	55.2%	6	15.8%	8	21.1%	0.001*
	Yes	13	44.8%	32	84.2%	30	78.9%	
Q2. Are you aware of physical changes in adolescence?	No	12	41.4%	6	15.8%	4	10.5%	0.005*
	Yes	17	58.6%	32	84.2%	34	89.5%	
Q3. Are you aware of secondary sexual characters?	No	13	44.8%	7	18.4%	8	21.1%	0.033*
	Yes	16	55.2%	31	81.6%	30	78.9%	
Q4. Are you aware of legal age of marriage?	No	19	65.5%	8	21.1%	7	18.4%	<0.001*
	Yes	10	34.5%	30	78.9%	31	81.6%	

Q5. Are you aware of HIV and its transmission?	No	23	79.3%	17	44.7%	15	39.5%	0.003*
	Yes	6	20.7%	21	55.3%	23	60.5%	
Q6. Are you aware of other sexually transmitted diseases?	No	26	89.7%	24	63.2%	24	63.2%	0.0.29*
	Yes	3	10.3%	14	36.8%	14	36.8%	
Q7. Are you aware of methods of prevention of STD's?	No	24	82.8%	22	57.9%	26	68.4%	0.094
	Yes	5	17.2%	16	42.1%	12	31.6%	
Q8. Are you aware of different methods of contraception?	No	26	89.7%	15	39.5%	25	65.8%	<0.001*
	Yes	3	10.3%	23	60.5%	13	34.2%	
Q9. Are you aware of emergency contraception?	No	27	93.1%	27	71.1%	25	65.8%	0.028*
	Yes	2	6.9%	11	28.9%	13	34.2%	
Q10. Are you aware of abortion and its risks?	No	26	89.7%	18	47.4%	25	65.8%	0.001*
	Yes	3	10.3%	20	52.6%	13	34.2%	
Q11. Are you aware of teenage pregnancy and its complications?	No	27	93.1%	27	71.1%	24	63.2%	0.018*
	Yes	2	6.9%	11	28.9%	14	36.8%	
Q12. Are you aware of molestation and sexual abuse?	No	19	65.5%	15	39.5%	18	47.4%	0.102
	Yes	10	34.5%	23	60.5%	20	52.6%	
Q13. Are you aware of psychological problems associated with sexual abuse?	No	20	69.0%	20	52.6%	21	55.3%	0.368
	Yes	9	31.0%	18	47.4%	17	44.7%	
Q14. Are you aware of social implications of unsafe sex?	No	22	75.9%	16	42.1%	20	52.6%	0.021*
	Yes	7	24.1%	22	57.9%	18	47.4%	

In the study there was significant association between age and awareness about all reproductive health components except Are you aware of methods of prevention of STD's, Are you aware of molestation and sexual abuse and Are you aware of psychological problems associated with sexual abuse parameters.

With increase in age there was increase in Awareness about reproductive health.

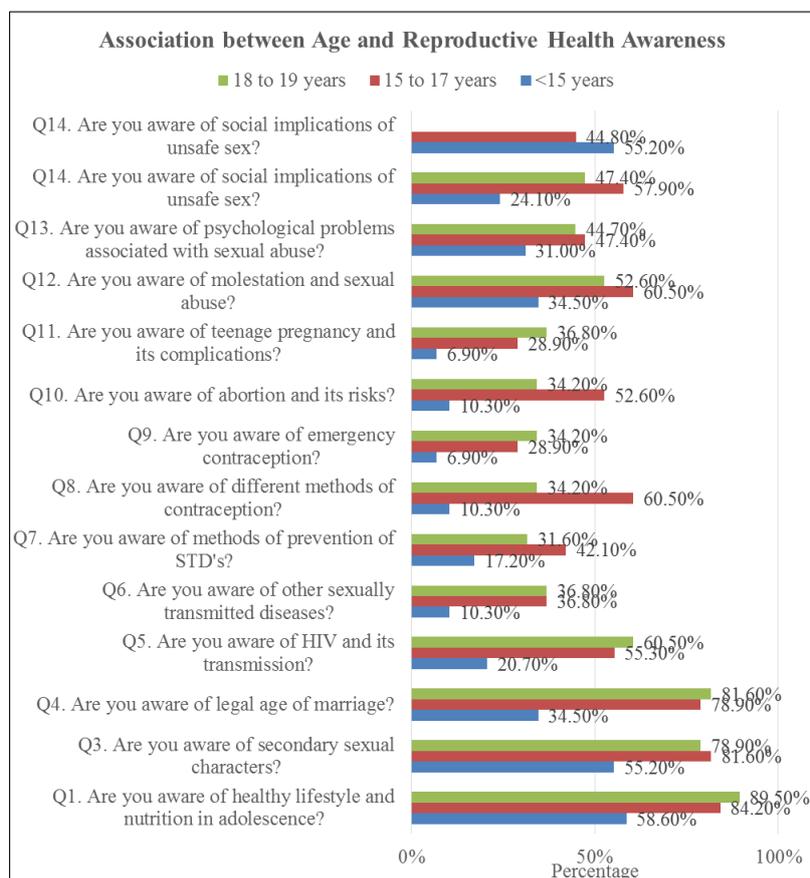


Fig 4: Column Diagram Showing Association between Age and reproductive health awareness

Table 5: Association between Education and reproductive health awareness

		Education								P value
		Illiterate		Primary		Secondary		PUC		
		Count	%	Count	%	Count	%	Count	%	
Q1. Are you aware of healthy lifestyle and nutrition in adolescence?	No	2	66.7%	19	59.4%	8	26.7%	1	2.5%	<0.001*
	Yes	1	33.3%	13	40.6%	22	73.3%	39	97.5%	
Q2. Are you aware of physical changes in adolescence?	No	1	33.3%	15	46.9%	5	16.7%	1	2.5%	<0.001*
	Yes	2	66.7%	17	53.1%	25	83.3%	39	97.5%	
Q3. Are you aware of secondary sexual characters?	No	1	33.3%	19	59.4%	6	20.0%	2	5.0%	<0.001*
	Yes	2	66.7%	13	40.6%	24	80.0%	38	95.0%	
Q4. Are you aware of legal age of marriage?	No	2	66.7%	19	59.4%	11	36.7%	2	5.0%	<0.001*
	Yes	1	33.3%	13	40.6%	19	63.3%	38	95.0%	
Q5. Are you aware of HIV and its transmission?	No	3	100.0%	27	84.4%	17	56.7%	8	20.0%	<0.001*
	Yes	0	0.0%	5	15.6%	13	43.3%	32	80.0%	
Q6. Are you aware of other sexually transmitted diseases?	No	3	100.0%	32	100.0%	21	70.0%	18	45.0%	<0.001*
	Yes	0	0.0%	0	0.0%	9	30.0%	22	55.0%	
Q7. Are you aware of methods of prevention of STD's?	No	3	100.0%	32	100.0%	19	63.3%	18	45.0%	<0.001*
	Yes	0	0.0%	0	0.0%	11	36.7%	22	55.0%	
Q8. Are you aware of different methods of contraception?	No	3	100.0%	30	93.8%	18	60.0%	15	37.5%	<0.001*
	Yes	0	0.0%	2	6.2%	12	40.0%	25	62.5%	
Q9. Are you aware of emergency contraception?	No	3	100.0%	31	96.9%	24	80.0%	21	52.5%	<0.001*
	Yes	0	0.0%	1	3.1%	6	20.0%	19	47.5%	
Q10. Are you aware of abortion and its risks?	No	3	100.0%	31	96.9%	17	56.7%	18	45.0%	<0.001*
	Yes	0	0.0%	1	3.1%	13	43.3%	22	55.0%	
Q11. Are you aware of teenage pregnancy and its complications?	No	3	100.0%	29	90.6%	24	80.0%	22	55.0%	0.003*
	Yes	0	0.0%	3	9.4%	6	20.0%	18	45.0%	
Q12. Are you aware of molestation and sexual abuse?	No	3	100.0%	25	78.1%	14	46.7%	10	25.0%	<0.001*
	Yes	0	0.0%	7	21.9%	16	53.3%	30	75.0%	
Q13. Are you aware of psychological problems associated with sexual abuse?	No	3	100.0%	29	90.6%	16	53.3%	13	32.5%	<0.001*
	Yes	0	0.0%	3	9.4%	14	46.7%	27	67.5%	
Q14. Are you aware of social implications of unsafe sex?	No	3	100.0%	31	96.9%	15	50.0%	9	22.5%	<0.001*
	Yes	0	0.0%	1	3.1%	15	50.0%	31	77.5%	

In the study education status had a significant association between awareness of all the components of reproductive health awareness.

Higher the education status, higher the awareness of reproductive health awareness.

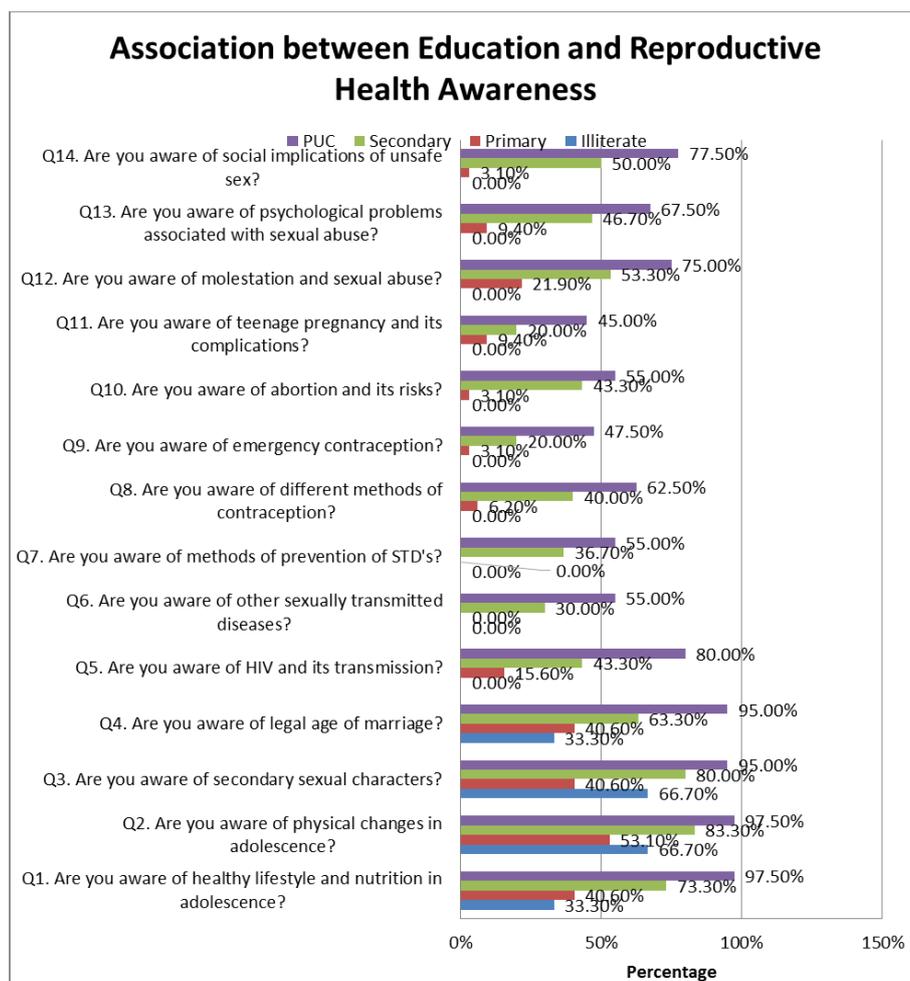


Fig 5: Column Diagram Showing Association between Education and reproductive health awareness

Discussion

This study was conducted among adolescent girls attending the Outpatient Department of OBG, Dr B R Ambedkar Medical College and Hospital to assess the knowledge about reproductive health. Awareness of reproductive health is essential among the adolescents as they are an easy prey for sexual promiscuity, unwanted and teenage pregnancy, contracting sexually transmitted diseases leading to physco-social issues such as untimely marriage, discontinuation of education, increased vulnerability, nutritional deficiency and malnutrition. In the present study, majority (72.4%) of the girls belonged to the age group of 15-19 years which is as defined by the WHO and around 27.6% were lesser than the age of 15 years with similar results noted in a study conducted by Anamika^[5]. A study conducted by Ebanja Silva Elonge Gabriel *et al.*, showed that majority of girls with teenage pregnancy belonged to the age group of 18-19 years. Similar results were obtained by study conducted by Dr Asha Hegde(6) As discussed the younger population are less likely to be aware of changes during puberty. The older age group the more is their awareness of reproductive health with no association between age and knowledge on sexually transmitted diseases and unsafe sexual practices was noted.

In the study 2.9% were illiterate, 30.5% studied till primary education, 28.6% till secondary education and 38.1% till PUC. Majority of the study subjects were educated upto PUC and as little as 2.9% were illiterates. A study conducted by Ebanja Silva Elonge Gabriel *et al.*, showed majority of the teenage pregnancy occurred in girls educated up to high school. Study conducted by asha also showed the role of gender bias with 67% of the boys attending

schooling whereas only 49% of the female attended schooling. Education is a root to gain knowledge and awareness which helps in modifying behavior patterns to better living. As literacy rates increase they are more open minded and this enhances the use of preventive and safe measures for healthier life.

In our study most of them were aware of healthy lifestyle, nutrition and physical changes in adolescence, awareness of secondary sexual characters and knew legal age of marriage. Study conducted by Ebanja Silva Elonge Gabriel *et al.*, showed that 70.40% of participants were aware of teenage pregnancy, its consequences, and prevention and that majority (75%) were curious regarding bodily changes associated with onset of puberty/sexual maturity. The level of awareness improved significantly with increase in class ^[7]. This can be linked to education most of study subjects had at least primary education or higher and most of these topics are a part of the curriculum. In the study education status had a significant association between awareness of all the components of reproductive health awareness.

With increased awareness of the basics of adolescence and the changes taking place during puberty by virtue of their education, their awareness on unsafe sex, sexually transmitted diseases, teenage pregnancy and related complications such as abortion and the emotional and psychological problems associated with sexual abuse did not seem to improve with education.

Conclusion

The present Study done in Department of OBG, Dr B R Ambedkar Medical College & Hospital to assess the awareness of reproductive health in adolescents shows that there was significant association between age and education in the knowledge of basic reproductive physiology, however, no association on the knowledge of unsafe sex and sexual practices and resultant complications such as teenage pregnancy and abortion and lack of knowledge of contraception and preventive measures making them more vulnerable to sexual abuse and psychological trauma. This calls in for the need for better education of the most vulnerable population of the society and put the future of this country in firm footing.

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