

ORIGINAL ARTICLE

Sexuality Education- Understanding adolescents' perspectiveSwati Shiradkar¹, Swati Mahajan²¹Professor, Department of Obstetrics & Gynecology, MGM Medical College & Hospital, Cidco, Aurangabad, Maharashtra;²Professor, Community Medicine, MGM Medical College & Hospital, Cidco, Aurangabad, Maharashtra

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Abstract

Introduction: Adolescence is very dynamic phase in life and if child is not able to cope up with the changes then the effects on health are lifelong. Evidence supporting role of holistic/ comprehensive sexuality education empowering children in this coping process is present. But still the controversies exists in all countries about either acceptance, content or delivery of the sexuality education. To make curriculum more acceptable, engaging and effective, it is very important to take into consideration adolescent's perspective. In present study, we tried to understand felt need of adolescents about sexuality education. **Objective:** To understand need for sexuality education. **Methods:** The methods used were question box, self-administered questionnaire, and name the organs in blank human figure activity all in different set of students. **Results:** 48% questions were to seek scientific information but extent was up to enquiring about sex toys. 12% about emotional changes, 11% about cultural norms, 9% about romantic relationship and 6% to clear myths. The basic knowledge about human body, pubertal changes was poor, more so in girls. The attitude towards pubertal changes was mostly negative in girls, curious in boys. The inhibition in mentioning reproductive system organs was significant in both, indicating attitude. 98% were willing to have correct knowledge about the pubertal changes and effects on life. **Conclusion:** The comprehensive sexuality education is unmet need in India. Taking into consideration perspective of adolescents, it should contain scientific knowledge and other relevant topics.

Keywords

Adolescents; Sexuality Education; Attitude; Pubertal Changes; Adolescent Education Program

Introduction

Sexual health is an important aspect of human health which includes but is not limited to reproductive health. Along with physical element, it involves psychological, emotional and social elements to a significant extent. It is not only about preventing STDs and unwanted pregnancies but a positive outlook towards sexuality. (1, 2) Social element is one which controls basic and natural instinct in human sexuality about nudity, privacy, rules of sexual practices and other 'values' associated with reproductive organs, making it different than other animals. This fact emphasizes the need for sexuality education to those going to be sexually active in near future. These values vary according to age, gender, beliefs, religion, culture, norms in society and individual

experiences and need to be taught in culturally appropriate way.

According to definition by WHO sexuality education is "Learning about cognitive, emotional, social, interactive and physical aspects of sexuality. It gradually equips and empower children and young people with information, skills and positive values to understand and enjoy their sexuality, have safe and fulfilling relationships and take responsibility for their own and other people's sexual health and wellbeing" (3)

In western countries, need of sexuality education is well accepted since long, but the disagreements among policy makers and service providers and adolescents about content and approach about expected outcome is continued.(3,4,5) Whatever is the content and the approach, it is usually decided by the adults, without

considering the needs of children receiving it.(2,6,7) There is need to improve upon both, content and approach. The sexuality education should go beyond biological information about reproductive organs and ways to prevent risk behaviors. It should take into consideration need of children and youth.(5,8)

In 1989, United Nations Convention on Rights of Child (CRC) mentioned that it is duty of governments to protect best interests of children. CRC was ratified by India in 1992. In 1994, at United Nations International conference on population and development, India was one of signatories to accept need of formal education affirming sexual and reproductive rights of adolescents and young people and was supposed to provide free and compulsory comprehensive sexuality education to adolescents.(9,10)

In India, we have a major chunk of total adolescent population. They are exposed to different cultures through social media leading to change in attitude towards sexuality and can easily obtain any information with help of internet. Visiting porn sites is reported as a method used to get information by boys.(11) Evidence says that significant events of rape and sexual abuse are there but go unreported because of ignorance or stigma.(12) The revised AEP program is prepared with good intention to bring uniformity in life skill education, but language is vague and confusing leading to exclusion of children not confirming with stereotypes of society. Implementation of this program is optional, the topics with which teachers are not comfortable are getting omitted leading to ineffectiveness.(13,14) To ensure acceptability of curriculum by policy makers, parents, teachers, children and society at large, it should be age appropriate, medically accurate, should include topics relevant to stakeholders according to their age and existing knowledge and should be delivered in culturally appropriate way. The attitude of learners towards the topic is very important. Adequate training of educators and safe environment are other aspects improving effectiveness.

Aims & Objectives

1. To understand need for sexuality education
2. To understand the questions in minds of adolescents about pubertal changes
3. To evaluate their knowledge on this subject before intervention
4. To know their attitude about these changes

Material & Methods

Question Box: In order to decide extent of knowledge to be given in module to be culturally appropriate and thrust areas of contents, questions were collected from students.

Knowledge test of students: Validated structured questionnaire was given to them to assess their knowledge.

Attitude test by human figure activity: A blank human figure was given to them and they were asked to name the organs they know in the body by putting arrow at their place.

All the above activities were carried out just before the sessions on sexuality which were planned in various schools in different sets of students. These were anonymous & only the gender of participant was mentioned in 2 and 3. Their participation was voluntary. Ethics committee approval, consent of principal and parents was obtained.

Results

Question Box: Out of total 864 students from 9 schools which included State & CBSE board, 404 questions were collected & their content analysis was done. (Figure 1).

Content analysis (Figure 2) showed maximum questions seeking scientific information. The range included questions from simple information to sex toys and sexual abuse also. More questions related with culture were from girls.

Student's Knowledge survey: 302 students participated in the survey. The response of females was significantly less in mentioning names of body parts. Very few mentioned specific changes like menstruation/ masturbation, breast development. Shame in female and curiosity in male were predominant emotions but majority were confused, reflecting need to work on emotions. Both male and female were experiencing the changes but negative emotions were significantly more in females. Expressed need for sexuality education was same for both Human Figure Activity with respect to reproductive system 365 students participated in this activity. The results indicate very poor comfort level of students mentioning organs of reproductive system irrespective of gender. (Table 1)

Discussion

A. Question Box-

Maximum (48%) questions were seeking scientific information about physiological changes occurring during puberty, concept about gender. The questions ranged from simple information about menstruation/ masturbation to availability of sex toys. Frequency with which simple questions were asked indicates that the knowledge level is poor and there is conflict about cultural values. It also pointed towards existence of myths mostly because of inaccurate knowledge. Content of the training module should be such that it addresses the existing doubts. Health care providers are also aware that there is inadequate knowledge about sexuality and related problems in adolescents leading to maladjustment.(15)

The content of questions was reflection of struggle going on in minds of adolescents to acquire knowledge, to normalize changes, to cope up with emotional turbulence, to face sexual attraction, to solve controversies in cultural norms, to check accuracy of present information etc. This

is also expressed in Advocacy manual prepared by MHRD.(16)

Khubchandani et. al mentioned “Questions asked by cross section of children should be considered as proxy measure of children’s need”.(17) So the ‘Question Box’ could act as base on which contents of module were prepared in a culturally appropriate manner. In this study, maximum number of questions were on body structure and function, followed by their own behavioural changes followed by cultural controversies about male female attraction. Very few questions were about contraception, use of condom and about sexual activity The non-governmental organization (NGO) running help line for sexuality related issues in India (TARSHI), after analyzing >60,000 calls, commented that ‘people of all ages seek information about sexual anatomy and physiology’.(18) On the other hand, in a study of three national surveys on patterns and trends in sources of information about sex among young people in United Kingdom (UK) it was found that maximum questions young people have are about sexual activity, then about contraception and very few had questions about body structure and function. This difference may be because sexuality education has been part of the school curricula in the UK for several years.(19) Such differences underline the need for culturally appropriate training module development.

In Module 2 prepared by Ministry of Human Resource Development (MHRD), along with National Council of Educational Research and Training (NCERT) for Adolescence Education Programme (AEP), it is mentioned that the activity of question box is helpful for students as well, because it gives them a platform to ask questions about sensitive topics in anonymous manner. For educators it gives opportunity to open discussion on any sensitive topic.

It was found that collecting the questions before the session and reviewing them in front of school teachers and administrators helps to alleviate their apprehension about need and scope of the session. This is also underlined in the Module 2 by MHRD.(20) Another advantage of this method is that it can be a source of authentic information about the questions participants may have in mind. Lack of basic knowledge about body structure and function, difference in sex and gender indicates the need to start from basics in India, which is common finding of many studies.(21,22,23) Questions about cultural norms, gender roles and their appropriateness indicate that because of globalization the values of young people are changing, having more effect of free western culture.(16) Questions regarding facts about menstruation and masturbation, size of organs indicate existence of misinformation. Many questions were about trans genders, homosexuality reflecting increasing attention on these issues in media. Questions about sexual abuse indicated fear of exposure and stigma.

Questions about sex toys indicated potential influence of porn and peers.

B. Survey of existing knowledge

The questions were simple, and aimed at assessing the knowledge about body parts, their functions, role of chromosomes in formation of body and comfort in talking about structure and function of reproductive system. Association of correctness of responses with gender was analyzed (Table 2). Association of gender with gender with emotional experience to pubertal changes was also analyzed to understand effect of sexual socialization. (Table 3) Correct responses were significantly less in females, highlighting gender difference in sexual socialization of girls and boys. Rather than ignorance, it was lack of comfort in mentioning them. This was evident during session following the survey. They started giving correct answers once the primary inhibition was removed. Acceptance of one’s own sexuality is very crucial in digesting further scientific information.(24)

The functions of reproductive systems are covered in biology textbooks. But this information is often not adequate to address all questions. So to seek further information children take help of internet.(20) Sathe et. al. also found that the level knowledge about their own body is often poor in adolescents.(21) There are several studies underlining the fact that knowledge about anatomy and physiology is inadequate amongst adolescents, which should be improved before they are educated in other aspects of sexuality.(9,13,16,21,25-29) Other part of survey was an attempt to understand their own experience of growing up. Majority of them agreed that they have experienced the changes but when they were asked to mention, very few (6.62%) mentioned about breast related changes, menstruation and night fall or masturbation. This was despite of the fact that the age of group addressed was such that all must have experienced these changes. Majority of the answers included things such as increase in height, change in voice, mood changes etc.

Students were asked to identify emotions attached with these changes. Shame was pre dominant in females and curiosity in males but majority were confused, reflecting need to work on emotions. Negative emotions like shame, fear, disgust were significantly more in females as compared to positive emotions like happiness. Similar observations are noted in various studies.(21,30,31) Expression of curiosity was significant in males. Being curious is natural, however, if the curiosity is not satisfied by accurate knowledge, they are likely to find inappropriate ways.(32,33) One more point of concern is many, especially females, were not able to identify their emotion. There is state of confusion may be because of stigma, taboo associated with this natural growth unlike growth of other organs.(27,34) This confusion can adversely affect ability of decision making. Majority of the girls are getting information about menstruation from

mother, often negative messages out of concern, or no information.(35) Most of the times responsibility to follow cultural norms is given to girls. This is reflected by the fact that for many years, boys were kept out of sexuality education and in girls, sessions on menstrual hygiene hardly covered other aspects of Comprehensive Sexuality Education (CSE). Result is girls develop negative body image while boys are happy in adopting 'masculine ways' expected out of them by culture.(28,36) Unless a healthy gender attitude is developed, gender based and sexual violence is not likely to decrease.(37)

The major positive finding of the survey was that 95 %students irrespective of their gender were keen on having knowledge on issues related with sexuality, emotional management. The fact is well supported by many studies. (18, 21-23, 25, 38-44) Currently the demand for sexuality education significantly outweighs the supply.(43, 45) So it is pertinent to prepare module containing relevant information required by the stakeholders.

C. Attitude test by human figure activity

The number of students mentioning complete reproductive organs of both male and female was negligible. A few mentioned reproductive organs of their own sex. Considerable number mentioned organs of own sex but answer was incomplete. Significant numbers did not mention reproductive organs contrary to the fact that sexuality and related issues are important for them in this age. It is possible that there is problem in development of their self-conscious because of cultural norms preventing openness in discussion of these organs.(16) It confirmed our findings of previous activities which indicated that the inhibitions, taboos, stigma are very prominent factors which may cause hindrance to acquisition of accurate knowledge about sexuality. Unhealthy attitude can prevent them from making right decisions.(33) Development of healthy attitude and getting knowledge should go hand in hand to have desired effects.(16, 18, 22, 27, 46) We should be more careful to develop this attitude as this has lifelong effects. It should be noted that the need and relevance for specific knowledge may change with time and culture and they can effectively choose from various sources of information once attitude is healthy. Role of parents is very crucial in this sexual socialization. Their training is also important to get desired outcome of sexuality education. Concept of Life Skill Education linked to sexuality is relevant and culture appropriate for us. At present there is some dissociation in implementation, the topics of sexuality education are isolated and optional, so there is tendency to omit them. The activity shows similarity to body appreciation scale (BAS), which gives idea about body image. It is shown that this self-image is related with biological changes and attitude towards these changes. Positive body image is indicator of wellbeing and satisfaction while negative image correlates with social physique anxiety. Such

studies can be useful in attaining deeper insight and help in development of intentional choice of self-acceptance. (30, 31)

Conclusion

The comprehensive sexuality education is unmet need in India. Taking into consideration perspective of adolescents, it should contain scientific knowledge and other relevant topics.

Recommendation

Sexuality education is felt need of adolescents. It should go beyond anatomy & physiology & help normalizing sexual socialization i.e. sexual literacy.

Relevance of the study

There are very studies on adolescents' perspectives on sexuality. This is one such exploratory study. This will help in designing modules for sexuality education & policy making

Authors Contribution:

Concept and majority of work done by first author. Second author has helped in analysis and manuscript writing.

References

1. Full Text PDF [Internet]. [cited 2021 Jun 10]. Available from: <https://iris.paho.org/bitstream/10665.2/42416/1/promotionsexualhealth.pdf>
2. Aggleton P, Campbell C. Working with young people - towards an agenda for sexual health. *Sex Relatsh Ther.* 2000;15(3):283–96.
3. WHO_RHR_HRP_10.22_eng.pdf.
4. Samadaee Gelehkolae K, Maasoumi R, Azin SA, Nedjat S, Parto M, Zamani Hajiabadi I. Stakeholders' perspectives of comprehensive sexuality education in Iranian male adolescences. *Reprod Health.* 2021;18(1):26. doi:10.1186/s12978-021-01084-0
5. Leung H, Shek DTL, Leung E, Shek EYW. Development of Contextually-relevant Sexuality Education: Lessons from a Comprehensive Review of Adolescent Sexuality Education Across Cultures. *Int J Environ Res Public Health.* 2019;16(4):621. doi:10.3390/ijerph16040621
6. "They Think You Shouldn't be Having Sex Anyway": Young People's Suggestions for Improving Sexuality Education Content | Request PDF [Internet]. [cited 2021 Jun 11]. Available from: https://www.researchgate.net/publication/240707230_They_Think_You_Shouldn't_be_Having_Sex_Anyway'_Young_People's_Suggestions_for_Improving_Sexuality_Education_Content
7. Cense M, Grauw S de, Vermeulen M. "Sex Is Not Just about Ovaries." Youth Participatory Research on Sexuality Education in The Netherlands. *Int J Environ Res Public Health.* 2020;17(22).
8. Hughes J, McCauley AP. Improving the fit: adolescents' needs and future programs for sexual and reproductive health in developing countries. *Stud Fam Plann.* 1998;29(2):233–45.
9. YCSRR_IND_UPR_S1_2008_YouthCoalitionforSexualandReproductiveRights_uprsubmission.pdf [Internet]. [cited 2022 Mar 11]. Available from: https://lib.ohchr.org/HRBodies/UPR/Documents/Session1/IN/YCSRR_IND_UPR_S1_2008_YouthCoalitionforSexualandReproductiveRights_uprsubmission.pdf
10. Athreye V. Sex Education in India: Sex education in schools is good or bad? - Education Blogs [Internet]. 2018 [cited 2021 Jun 11]. Available from: <https://www.mapsofindia.com/my-india/education/why-is-sex-education-important-in-india>
11. Organization PAH, Organization PAH, Sexology (WAS) WA for. Promotion of sexual health: recommendations for action. [cited

- 2021 Jun 10]; Available from: <https://iris.paho.org/handle/10665.2/42416>
12. Chandra-Mouli V, Gómez Garbero L, Plesons M, Lang I, Corona Vargas E. Evolution and Resistance to Sexuality Education in Mexico. *Glob Health Sci Pract*. 2018;6(1):137–49.
 13. Nair MKC, Leena ML, George B, Thankachi Y, Russell PSS. ARSH 5: Reproductive health needs assessment of adolescents and young people (15–24 y): a qualitative study on “perceptions of community stakeholders.” *Indian J Pediatr*. 2013;80(2):S214–221.
 14. Arpita Das (2014) Sexuality education in India: examining the rhetoric, rethinking the future, *Sex Education*, 14:2, 210–224, DOI: 10.1080/14681811.2013.866546
 15. Nair MKC, Leena ML, George B, Thankachi Y, Russell PSS. ARSH 6: Reproductive health needs assessment of adolescents and young people (15–24 y): a qualitative study on “perceptions of program managers and health providers. *Indian J Pediatr*. 2013 Nov;80 Suppl 2:S222–228.
 16. Adolescence and the Problems of Puberty| *Psychology Today* [Internet]. [cited 2021 Jun 10]. Available from: <https://www.psychologytoday.com/us/blog/surviving-your-childs-adolescence/201004/adolescence-and-the-problems-puberty>
 17. PubMed entry [Internet]. [cited 2022 Mar 11]. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/25374847>
 18. Assessing the conditions and quality of counselling related to sexuality and sexual health | *Eldis* [Internet]. [cited 2022 Mar 11]. Available from: <https://www.eldis.org/document/A36736>
 19. Patterns and trends in sources of information about sex among young people in Britain: evidence from three National Surveys of Sexual Attitudes and Lifestyles| *BMJ Open* [Internet]. [cited 2022 Mar 11]. Available from: <https://bmjopen.bmj.com/content/5/3/e007834>
 20. NCERT [Internet]. [cited 2022 Mar 11]. Available from: <https://ncert.nic.in/dess/aep.php>
 21. Sexuality & reproductive health education. 2014;9(1):109.
 22. Saksena S, Saldanha S. Impact of a course on human sexuality and adolescence. *Indian J Pediatr*. 2003;70(3):203–6.
 23. Sathe S. Knowledge and behaviour and attitudes about adolescent sexuality amongst adolescents in Pune: A situational analysis. *J Fam Welf*. 2005;51(1):49–59.
 24. Full Text PDF [Internet]. [cited 2022 Mar 11]. Available from: https://www.researchgate.net/profile/Sujita-Kar/publication/318393228_Sex_Education_In_India_Why_What_When_Where_Whom/links/5c1722e04585157ac1c7bf3c/Sex-Education-In-India-Why-What-When-Where-Whom.pdf
 25. Sex Education in Schools [Internet]. CQ Researcher by CQ Press. [cited 2022 Mar 11]. p. 803–20. Available from: <http://library.cqpress.com/cqresearcher/cqresrre1957103000>
 26. Pubertal Changes in Teenagers of Varanasi - A Spiritual City of India | Kaushalendra Kumar Singh - *Academia.edu* [Internet]. [cited 2021 Jun 14]. Available from: https://www.academia.edu/25073044/Pubertal_Changes_in_Teenagers_of_Varanasi_A_Spiritual_City_of_India?auto=download
 27. 9789241598484_eng.pdf [Internet]. [cited 2022 Mar 11]. Available from: http://apps.who.int/iris/bitstream/handle/10665/44178/9789241598484_eng.pdf;jsessionid=5CF5456A47DDC52B4A5D3BDE5CD674AC?sequence=1
 28. Thirunavukarasu A, Simkiss D. Developments in Reproductive Health Education in India. *J Trop Pediatr*. 2013;59(4):255–7.
 29. Nair MKC, Leena ML, Thankachi Y, George B, Russell PSS. ARSH 1: Reproductive and sexual health problems of adolescents and young adults: a cross sectional community survey on knowledge, attitude and practice. *Indian J Pediatr*. 2013;80 Suppl 2:S192–198.
 30. Ibáñez MA, Chiminazzo JGC, Sicilia Á, Fernandes PT. Examining the psychometric properties of the Body Appreciation Scale-2 in Brazilian adolescents. *Psychol Soc Educ*. 2017;9(3):505–15.
 31. Sinkkonen J, Anttila R, Siimes MA. Pubertal Maturation and Changes in Self-Image in Early Adolescent Finnish Boys. *J Youth Adolesc*. 1998;27(2):209–18.
 32. 8 Ridiculous Misconceptions About Sex Education in India | *Youth Ki Awaaz* [Internet]. [cited 2021 Jun 14]. Available from: <https://www.youthkiawaaz.com/2015/03/sex-education-in-india>
 33. Adolescent Education Programme Facilitators Guide [Internet]. [cited 2022 Mar 11]. Available from: <http://164.100.130.11:8091/webarsh/Resources%20on%20ARSH/Adolescent%20Education%20Programme%20Facilitators%20Guide.pdf>
 34. Coast E, Lattof SR, Strong J. Puberty and menstruation knowledge among young adolescents in low- and middle-income countries: a scoping review. *Int J Public Health*. 2019;64(2):293–304.
 35. Kirby D. The impact of schools and school programs upon adolescent sexual behavior. *J Sex Res*. 2002;39(1):27–33.
 36. Sex education is key to solving India’s sexual violence problem — *Quartz India* [Internet]. [cited 2022 Mar 11]. Available from: <https://qz.com/india/1620684/sex-education-is-key-to-solving-indias-sexual-violence-problem/>
 37. Study on Child abuse: India 2007 [Internet]. Resource Centre. 2011 [cited 2022 Mar 11]. Available from: <https://resourcecentre.savethechildren.net/library/study-child-abuse-india-2007>
 38. Kar S, Singh A, Prakash O, Tripathi A. Sex Education In India: Why, What, When, Where, Whom? In 2017.
 39. Kumar R, Goyal A, Singh P, Bhardwaj A, Mittal A, Yadav SS. Knowledge Attitude and Perception of Sex Education among School Going Adolescents in Ambala District, Haryana, India: A Cross-Sectional Study. *J Clin Diagn Res JCDR*. 2017;11(3):LC01–4.
 40. Parwej S, Kumar R, Walia I, Aggarwal AK. Reproductive health education intervention trial. *Indian J Pediatr*. 2005;72(4):287–91.
 41. Ismail S, Shajahan A, Sathyanarayana Rao TS, Wylie K. Adolescent sex education in India: Current perspectives. *Indian J Psychiatry*. 2015;57(4):333–7.
 42. Benzaken T, Palep AH, Gill PS. Exposure to and opinions towards sex education among adolescent students in Mumbai: A cross-sectional survey. *BMC Public Health*. 2011;11(1):805.
 43. Ramadugu S, Ryali V, Srivastava K, Bhat PS, Prakash J. Understanding sexuality among Indian urban school adolescents. *Ind Psychiatry J*. 2011;20(1):49.
 44. Does your school has a balanced teacher gender ratio? [Internet]. *Toppr Bytes*. 2017 [cited 2022 Mar 11]. Available from: <https://www.toppr.com/bytes/teacher-gender-ratio/>
 45. Halliwell E, Jarman H, Tylka T, Slater A. Adapting the Body Appreciation Scale-2 for Children: A psychometric analysis of the BAS-2C. *Body Image*. 2017;21:97–102.
 46. Singh BP, Singh G, Singh KK. Pubertal Changes in Teenagers of Varanasi- The Spiritual City of India.

Tables

TABLE 1 OVERVIEW OF RESPONSES ACCORDING TO GENDER

Categories of Responses	Female		Male		Chi-square value	p-value
	Number	Percentage	Number	Percentage		
Complete & Both Sexes	7	3.41%	2	1.19%		
Complete But Only Own Sex	20	9.75%	12	7.14%		
Incomplete	42	20.50%	25	14.88%		
Not Mentioned	136	66.34%	121	72.02%		P=0.213
Total	205	100.00%	160	100.00%	4.49	NS

TABLE 2 ASSOCIATION OF GENDER WITH RESPONSES OBTAINED TO KNOWLEDGE QUESTIONS

Question	Response	Male [n=185]	Female [n=117]	Total [n=302]	X ² value	P value	Significance
Reason why human body structure remains same over generations.	Correct	24	21	45	12.2	0.007	S
	Incomplete	41	13	54			
	Incorrect	56	25	81			
	Not answered	64	58	122			
Reason why male & female bodies differ	Correct	29	26	55	3.81	0.283	NS
	Incomplete	30	23	53			
	Incorrect	69	41	110			
	Not answered	57	27	84			
Difference between male & female bodies	Correct	36	14	50	16.9	0.01	S
	Incomplete	51	18	69			
	Incorrect	47	27	74			
	Not answered	51	58	109			

*S= Significant, NS=Not significant

TABLE 3 ASSOCIATION OF GENDER WITH EMOTIONAL EXPERIENCE TO BODY CHANGES

Question	Response	Male [n=185]	Female [n=117]	Total [n=302]	X ²	P value	Significance
Are you experiencing any such changes in your body over year	Yes	179	113	292	0.069	P=0.934	NS
	No	6	4	10			
Feeling about such changes	Shame	20	45	67	34.6	P<0.00001*	S
	Fear	4	38	42	55	P<0.00001*	S
	Disgust	4	23	27	26.9	P<0.00001*	S
	Anger	1	34	35	56.9	P<0.00001*	S
	Curious	50	3	53	29.6	P<0.00001*	S
	Happy	39	6	45	14.4	P<0.00001*	S
	Not able to identify	49	60	109	19.1	P<0.00001*	S
Would like to know why these changes occur & how to deal with them	YES	178	108	286	1.56	P=0.212	NS
	NO	7	9	16			

*S= Significant, NS=Not significant

