AWARENESS ABOUT REPRODUCTIVE HEALTH AMONG ADOLESCENT GIRLS IN FAISALABAD, PAKISTAN

Farkhanda Jabeen✉ , Rubina Sarmad[1]

ABSTRACT

BACKGROUND: Adolescence is the stage of life when individuals reach sexual maturity, in addition to physical changes. Pakistani adolescents have to face many problems related to reproductive health. This traditional society discourages open discussion on reproductive health issues.The objective of this study was to determine the level of awareness about reproductive health among adolescent girls aged 15-20 years.

METHODS: This cross sectional descriptive study was conducted on 300 female students selected randomly from two women colleges in Faisalabad, from 01.06.11 to 30.06.11 . A self administered questionnaire was developed. Data was cleaned and entered using Epi Data version 3 and was analyzed by using Epi Info version 3.5.1.

RESULTS: The age of the study subjects ranged from 15 and 20 years. The overall knowledge about pubertal changes was found to be 68%. All participants had attained menarche by the time the survey was conducted. The mean age at menarche was 13.63 years. The leading source of menarcheal information to the adolescents were mothers in 47% of cases. There were some cultural and indigenous practices followed by the participant regarding menstrual hygiene and dietary habits during menstruation. The overall knowledge about reproductive health, family planning, emergency contraception was very low.

CONCLUSION: The study showed tremendous lacunae in awareness of all reproductive health related matters. Further studies, both at state and regional levels, are warranted to identify geographic and demographic gaps in reproductive health knowledge in both adolescent girls and boys.

KEY WORDS: Adolescent girls, Reproductive health, Menarche, Puberty.

✉ Assistant Prof - Deptt of Community Medicine, M.Islam Med College, Gujranwala, Pakistan.

@ doc_farukh@hotmail.com

0301-8667333

1. Deptt of MCH, Institute of Public Health, Lahore, Pakistan.

Received: Aug 3, 2017, Revised: Oct 10, 2017, 2017, Accepted: Oct 15, 2017

INTRODUCTION

Today the world is home to the largest generation of 10-19 year olds in history; they number over one billion and are increasing. At the same time there are wrenching changes due to increased urbanization and industrialization, as well as the revolution in modern communications and information technology.

Adolescence is the period of transition from childhood to adulthood, which starts with the onset of puberty. World Health Organization defines Adolescents as young people between the ages of 10 and 19 years[1]. The sexual and reproductive health needs of adolescents differ from those of adults, and are inadequately served in many parts of the world[2].

Adolescence is defined as the stage of life when individuals reach sexual maturity. This is the time when adolescents experience a change in their physical, social, and emotional aspects of life. In order to effectively deal with this transition, they require information and a clear picture of their bodily changes to prevent them from physical problems, guilt, ambiguity, and confusion.

Therefore, reproductive health of the young people is a growing concern today and is considered a corner stone of health and a major determinant of human social development[3].

The concept of adolescence as a distinct period of human development is still fairly new in Pakistan. Most beliefs and practices in this multicultural society are still premised upon the assumption that the transition from childhood to adulthood is brief and marked by the onset of marriage, particularly for girls. But the reality of life in Pakistan is rapidly changing. One in three people lives in an urban center, which means that Pakistan is unlikely to remain a primarily rural society. Access to electronic media is increasingly widespread, heightening the cultural influences of other areas and increasing access to information from the outside world. Educational levels and age at marriage are also increasing, and lengthening the transition into adulthood[4].

Reproductive health is crucial part of the general health and a central feature of human development, this was highlighted at ICPD conference, which emphasized on girls education and adolescent sexual and reproductive health Issues[5].

Reproductive health is a life time concern for both women and men, from infancy to old age. Pregnancies and births will almost double among adolescent Pakistani girls in the next 20 years. Births will increase from almost 1.7 million in 2000 to 2.9 million in 2020 an increase of 41 percent[4].

Number of studies was done in South East Asia region to know the knowledge and awareness of reproductive health related issues in adolescents. In Pakistan little work has been done in this field and very few studies are available which shows that adolescents and young adults do have some knowledge of reproductive health issues Yet, a large majority

needs clarification on their concepts and perceptions[6].

The transition from childhood to adulthood occurs during adolescence period which is characterized by major biological changes like physical growth, sexual maturation and psycho-social development. In addition to the physical changes the girls experience menstruation and related problems which is marked by feelings of anxiety and eagerness to know about this natural phenomenon. However, they do not get the appropriate knowledge due to lack of a proper health education programmes in schools. Moreover, the traditional society discourages open discussion on reproductive health issues. This leads to repression of feelings which can cause intense mental stress and seek health advice from quacks and persons who do not have adequate knowledge on the subject. Moreover, the routine health services do not have provisions for adequate care of adolescent health problems. This further exaggerates the problems many fold. Understanding the health problems related to physical changes and menstruation and the health seeking behavior of the adolescent girls, their awareness about reproductive health will help us in plan¬ning programmes for this vulnerable group[7].

The onset of menstruation is one of the most important changes occurring among the girls during the adolescent years. The first menstruation (menarche) occurs between 11 and 15 years with a mean of 13 years.

Menstruation is still regarded as something unclean or dirty in Pakistani society. The reaction to menstruation depends upon awareness and knowledge about the subject. The manner in which a girl learns about menstruation and its associated changes may have an impact on her response to the event of menarche.

Hygiene-related practices of women during menstruation are of considerable importance, as it has a health impact in terms of increased vulnerability to reproductive tract infections (RTI). Today millions of women are sufferers of RTI and its complications and often the infection is transmitted to the offspring of the pregnant mother.

Women having better knowledge regarding menstrual hygiene and safe practices are less vulnerable to RTI and its consequences. Therefore, increased knowledge about menstruation right from childhood may escalate safe practices and may help in mitigating the suffering of millions of women.

Adolescents appear to be poorly informed with regard to their own sexuality, physical well-being, health, and bodies. Whatever knowledge they have, moreover, is incomplete and confused. Low rates of educational attainment, limited sex education activities, and inhibited attitudes toward reproductive health contribute to this ignorance.

The reproductive health needs of young women are quite different from those of young men, principally because of their young age at marriage. According to WHO, worldwide, girls younger than 18 are up to five times more likely to die in childbirth than are women in their twenties.

Adolescents awareness of regular contraception are low, and awareness of and access to emergency contraceptive pills are even lower. Emergency contraceptive pills (ECPs) have become more available in many developing countries. However, limited provider knowledge and negative attitudes, as well as poor user awareness and access, have hindered adolescents in learning about and using ECPs[8].

Research surrounding adolescents' reproductive issues remain limited, primarily due to the social taboos restricting open discussion of the topic specially among the young group. Limited literature shows that people of Pakistan generally and adolescent group specially have limited access to puberty related health education and services. A survey conducted by Aahung, a non-governmental organization revealed that adolescents had general lack of confidence and had inadequate information about their bodily changes[5].

Pakistan is a developing country of 179.3 million populations. Pakistan is one of the few countries in the world where men out numbered women. This unfavorable ratio is mainly a consequence of excess mortality of young girls and women in child bearing age.

Reproductive health indicators in Pakistan are poor. According to UNICEF (2009) Maternal mortality ratio is 280/100,000, infant mortality ratio is 71/1000 and under 5 mortality 87/1000. CPR is low, unmet needs are high and health status of women is low in Pakistan[9].

Poor quality of existing public reproductive health services in Pakistan has beenrecognized and well documented. Very few studies are available in Pakistan to assess awareness and knowledge of adolescent girls about reproductive health issues.

Providing information and education on reproductive health will help young people explore their own attitudes, values and options, as well as increase their knowledge and understanding of reproductive health issues. Although there exist great variations between different cultures, studies have shown that adolescents in the South Asian countries rarely discuss sexual matters (e.g. sexual intercourse, sexuality and sexual preferences, menstruation) explicitly with their parents or with adults older than themselves. Most information on these subjects comes either from their peers, who may be equally uninformed or mis-informed and are likely to be relatively inexperienced themselves, or from the media, which tend to represent either sexual and gender stereotypes or extremes. Due to such a situation the adolescents are not prepared mentally or psychologically to cope with these changes[10].

The finding of this study will highlight the knowledge of young girls about reproductive health issues, which can be used to develop effective strategies to improve adolescent health. Sustained and increased investment in reproductive health services in developing country like Pakistan will provide tremendous benefits to adolescent girls, families and ultimately to whole society and this will contribute to growth, social,

gender equity and democratic governance. The objective of the study was to determine the level of awareness about reproductive health among adolescent girls (15-20 years).

MATERIAL & METHODS

This Cross sectional descriptive study was conducted at two women colleges in Faisalabad city of the Punjab province, Pakistan over a period of one month from 01.06.11 to 30.06.11. There are 4 public and 4 private women colleges in Faisalabad. Out of those, a public and a private college was randomly selected. One section from each class (1st year, 2nd year, 3rd year and 4th year) was randomly selected in each college and all the students aged 15-20 years in the selected section were included in the study. Those students who were not willingly to participate or those who were married, were excluded from the study.Total number of students in two colleges were about 1100. Considering knowledge level about 50%, alpha= .05, the estimated sample size was calculated to be 300 by using Epi info software.

Data collection instrument was a pretested questionnaire .After getting approval from ethical review board of IPH, formal consent was taken from the principal of selected colleges, and different modalities of self administered questionnaire were discussed. A self administered questionnaire was developed and translated to urdu. It was pretested at local college and necessary changes were made and final questionnaire was used for data collection.

An informed verbal consent will be taken from the participants, after explaining them the study objectives & ensuring for confidentiality of information. Data was cleaned and entered using Epi Data version 3. Data will was analyzed using Epi Info version 3.5.1. Frequency tables was generated for all categorical variables. Bar and pie diagrams will be used to present categorical data .A prior informed verbal consent was taken from the principal of college, and the study participants.

RESULTS

A total of 300 adolescent college girls from Faisalabad and 15-19 years of age participated in my study. The mean age was 17.47 years with the median age of 18 years and with the standard deviation of 1.401. minimum age was 15 years and maximum age was 19 years.

FIG 1: KNOWLEDGE ABOUT BODY CHANGES DURING PUBERTY

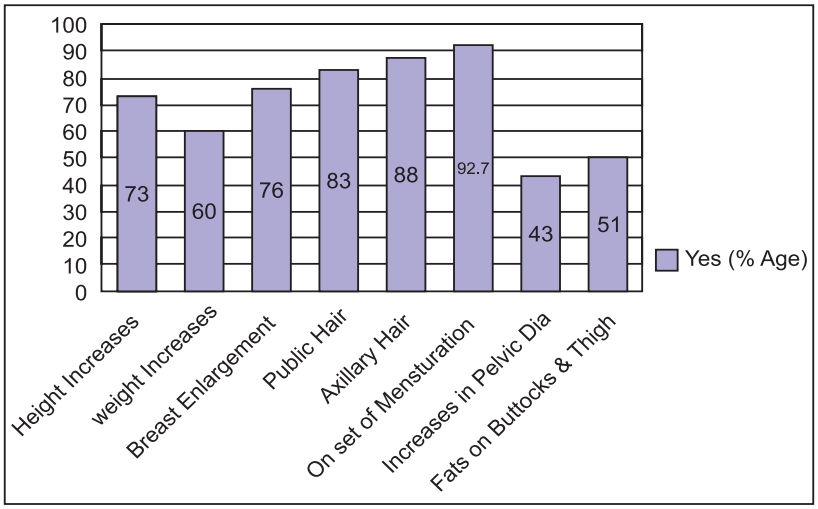

TABLE 1: AGE AT MENSTRUATION AND PRIOR KNOWLEDGE ABOUT MENSTRUATION AMONG FEMALE COLLEGE STUDENTS

Age at menarche & prior knowledge about mensturation	Frequency	Percentage
Have you had your first period?		
Yes	300	100%
No	0	0%
Age at first period		
≤ 9	0	0%
10-12	44	14.7%
13-15	242	80.6%
16-18	14	4.7%
Were you pre-informed about menstruation before it began?		
Yes	127	42.3%
No	173	57.7%
Source of this information		
Mother	65	47%
Sister	17	12%
Cousin	7	5%
Friend	43	31%
Teacher	1	0.5%
Others	5	3.6%
Have you heard about PMS?		
Yes	9	3%
No	291	97%

TABLE 2: PRIOR INFORMATION ABOUT MENSTRUATION AND STUDENTS PERCEPTION ABOUT THE NEED FOR EDUCATION ON MENSTRUATION IN THE SCHOOL. n = 300

Prior information about mensturation	Frequency	Percentage
Did any teacher in the school ever gave you information about menstruation?		
Yes	76	25%
No	224	75%
Do you think girls should be pre-informed about menstruation in school?		
Yes	218	73%
No	82	27%
If "Yes", in which class?		
5th grade	13	6%
6th grade	56	25%
7th grade	73	33%
8th grade	72	33%
Other	7	2%

TABLE 3: HYGIENE AND DIETARY PRACTICES OF FEMALE COLLEGE STUDENTS DURING MENSTRUATION. n = 300

Hygienic & dietry practices during mensturation	Frequency	Percentage
Type of pad used.		
Disposable sanitary pad	260	86.7%
Cotton	11	3.7%
Old cloth	29	9.7%
Number of times a day pad is changed		
1	55	18.3%
2	118	39.3%
3	106	35.3%
4 or more	21	7%
Have privacy in disposing sanitary pad?		
Yes	267	89%
No	33	11%
Place where pad is disposed		
In sanitary bag	110	36.7%
Garbage	160	53.3%
Flush out	9	3%
Other way	21	7%
How frequently you take bath during menstruation?		
Not at all	25	8.3%
Same as normal	112	37.3%
Less than normal	154	51.3%
More than normal	9	3%
What kind of food do you take during menstruation?		
Same as before	255	85%
Different from normal	45	15%
If different from usual, then what change?	30	50%

Avoid cold & oily things	10	16%
Did not feel much to eat	3	5%
Egg, tea, milk and fruits in large amount	7	115
Eat more hot things	10	16%
Which of the followings a girl can do during menstruation?		
Can take bath during menstruation		
Yes	217	72%
No	83	28%
Eat same food		
Yes	255	85%
No	45	15%
Can eat egg, meat, fish		
Yes	223	74%
No	77	25.6%
Can go to college		
Yes	285	95%
No	15	5%
Can carry on usual routine		
Yes	246	82%
No	54	18%
Can do exercise		
Yes	110	36.7%
No	190	63.3%

TABLE 4: AWARENESS OF COLLEGE GIRLS ABOUT FAMILY PLANNING AND EMERGENCY CONTRACEPTION AND REPRODUCTIVE HEALTH. N = 300

Knowledge about family planning, EC and RH	Frequency	Percentage
Have you heard about family planning methods?		
Yes	102	34%
No	198	66%
Are they easily available?		
Yes	46	15.3%
No	167	55.7%
Don't Know	87	29%
Have you heard about emergency contraception?		
Yes	35	11.7%
No	265	88.3%
Are they easily available?		
Yes	27	9%
No	174	58%
Don't Know	99	33%
Have you heard about reproductive health?		
Yes	72	24%
No	228	76%

DISCUSSION

Pakistan is the second most populous Muslim-majority country, with an estimated population of 169 639 500 in 2010. Faisalabad, located in the northeast region, was founded in 1892 as an agricultural market and has grown into a large metropolitan city. Also known as "the Manchester of Asia," Faisalabad is renowned for textiles, engineering, chemicals, food processing, hosiery, printing, publishing, pharmaceuticals and household power loom units. This is a first study in Faisalabad that intended to explore the reproductive health knowledge of female adolescent girls.

Puberty is the transition from childhood to adolescent. There are marked and tremendous changes in body both physically and internally. This is very important phase in ones life. The overall knowledge of college girls about puberty was 68% . Majority of the students knew about the pubertal changes.

Menarcheal age is the most widely used indicator of sexual maturation and is known to be influenced by genetic factors, environmental conditions, body stature, family size, body mass index (BMI), socioeconomic status and level of education. In our study all the participants had attained menarche at the time of survey. Minimum age at menarche was 10 years and maximum age is 16 years with the mean age 13.63 years. This coincide with the mean age at menarche in khasi girls study done in Meghalaya which was found to be 13.22 _+ 0.88[11]. Mean age of menarche was found to be 12.6 years in Korean girls in a survey conducted in 2010[12].The estimated mean and median of age at menarche was 12.72 years in a study done in Canada[13]. This difference in age at menarche with our study may reflect different environmental influences.

Another study conducted in Addis Ababa reported mean age of menarche as 13.72 ± 1.31 years[14] .In Sudan = 13.85[15] in Morocco = 13.66[16] and in Mozambique 13.9 ± 1.29[17] .This strongly supports our study results.

Pre menarcheal information about menstruation is very important to prepare and to prevent the girls from psychological trauma and to handle the adverse reaction of menarche.

In our study 42% girls were informed prior to menstruation and 58 % girls were not .This reflects upon the standard of awareness in the society to such important event and it also leads to negative reaction to menarche.

A study done by A Dasgupta and M Sarkar 18 showed that 67.5% girls were aware about menstruation prior to attainment of menarche, and 55% Nigerian school girls got pre menarcheal training. Mothers were found as potential source of information .

In our study 47% were informed by their mothers followed by friends 31% and then the sisters 12% , this is supported by the studies done in Bijapur India where mothers were found to be main source of information 57% and Anand district Gujrat India (60%)[18]. This also agrees with studies done in India[42] and Malaysia[19] .

Two third of the respondents (73%) suggested that they should be pre-informed and this information can be given through mothers (71%) followed by teachers. This revealed that they are more close to their mothers and they feel comfortable sharing their problems to their mothers. 66% students suggested that they should have pre menarcheal information before entering to standard eight which might reflect that mostly attain menarche before the age[13].

Social and cultural factors impact on adjustment to menses and have an effect on the early experiences of menarche. Certain common features were observed, however, in that most girls reported their mothers as a principal source of information and received some limited education about menses in school with frequent emphasis on the hygienic aspects of menstruation. Since it is a very sensitive issue, girls prefer to report such things first to the woman they trust most. Because girls' attitudes and ways of thinking change during early adolescence, menstrual education needs to be an ongoing process[20].

Menstruation is still regarded as something unclean or dirty in our society. The reaction to menstruation depends upon awareness and knowledge about the subject. The manner in which a girl learns about menstruation and its associated changes may have an impact on her response to the event of menarche. Although menstruation is a natural process, it is linked with several misconceptions and practices, which sometimes result into adverse health outcomes.

Girls having better knowledge regarding menstrual hygiene and safe practices are less vulnerable to RTI and its consequences. Therefore, increased knowledge about menstruation right from childhood may escalate safe practices and may help in mitigating the suffering of millions of women. In many societies, including Pakistan, menstruation is regarded as very private and is seldom discussed in public or taught openly.

When we asked girls about their hygiene and dietary practices during menstruation we were not much surprised because menstruation and menstrual practices are still clouded by taboos and socio-cultural restrictions resulting in adolescent girls remaining ignorant of the scientific facts and hygienic health practices, which sometimes result into adverse health outcomes .There are still taboos related to menstruation , girls usually avoid bathing (51%) and there are some girls (8.3%) who do not take bath at all during the menstrual cycle. They also alter their dietary habit like they avoid cold , oily foods, take more hot liquids , some girls totally avoid taking water.

Menstruation is a normal physiological process that is managed differently according to various social and cultural understandings, we asked about do's and don'ts during menstruation . More than 80% said that girls can carry usual routine, can go to college, can eat egg, meat, fish but they cannot do exercise as it harms the body.

A similar study was done on indigenous practices of Saudi girls in Riyadh during menstruation, the results revealed that nearly two-thirds of the girls avoided certain foods, drinks and activities, including showering and

performing perineal care, and practiced several indigenous rituals during the period. Mother, religious books and sisters were the main sources of the girls' information[18]. The study of the menstrual practices of adolescent girls unveils health issues that affect their adjustment to reproductive life and provides the basis for formulating health education strategies relevant for this crucial period in reproductive life[20].

As mothers were the main source of information and knowledge in this study, health professionals should involve mothers in general discussions about menstrual problems and how to deal with them. Mothers were unprepared or unable to give sufficient advice and reassurance to their daughters. By involving mothers in discussion and providing accurate information, mothers will be better prepared[19].

Contraception is one of the major determinants of fertility levels however 66 % girls have not heard about family planning , there were only 34% girls who have heard about family planning , and they define it as birth spacing or future plans about size of family. A small percentage (18%) of girls knews at least two methods of family planning , in which tablets anhd injectables were the most commonly known methods. Major source of information was television followed by mothers , friends and sisters etc. The students were unaware of the availability of family planning methods and emergency contraception. We found that the students had very low level of contarceptive knowledge. These adolescent girls are future mother and their poor knowledge regarding contaception will affect their fertility decisions in future.

Similarly a research was conducted by Maternity and Child Welfare Association of Pakistan to find out the reasons why there is such a low acceptability of methods of contraception in Pakistan, where conventional methods of family planning are failing miserably. Why is the contraceptive prevalence rate in Pakistan only 23.9, why aren't the people of Pakistan using these methods when their immediate neighbours, India and Bangladesh are slowly and steadily increasing their contraceptive rates.

Further project are very necessary to find out why the contraceptive prevalence rate is the lowest in the subcontinent. What are the reasons for the acceptability and non acceptability of contraceptive methods in Pakistan. The former literature search suggests that the socio-economic conditions, religion, and lack of education in Pakistan are the main reasons.

CONCLUSION

Findings of this study support many previous researches held in Pakistan and across the world which show that female adolescents have poor knowledge and limited access to puberty related health problems and other reproductive health issues. Young females of Pakistan get information from very limited sources, which includes electronic media, family members (mothers, sisters) and friends. Electronic media seems to be the major source of information but it does not provide appropriate information regarding this issue. Though it is a relatively small study with a small sample size, further studies, at both state and regional levels, are warranted to identify geographic and demographic gaps in reproductive health knowledge in both adolescent boys and girls.

REFRENCES

1. Adolescent health [Internet]. World Health Organization. 2011 [cited 13 June 2011]. Available from: http://www.who.int/topics/adolescent_health/en/
2. Sexual and reproductive health [Internet]. World Health Organization. 2011 [cited 13 June 2011];Available from: http:// www.who.int/reproductivehealth/en/
3. Ali TS, Azam Ali P, Waheed H, Memon AA. Understanding of puberty and related health problems among female adolescents in Karachi, Pakistan. Journal of Pakistan Medical Association. 2006;56(2):68.
4. Khan A, Pine P. Adolescent and youth reproductive health in Pakistan; Status, Issues, Policies, and Programs [Internet]. Policyproject.com. 2003 [cited 10 June 2011]. Available from: http://www.policyproject.com/pubs/countryreports/ARH_Pakistan.pdf
5. International Conference on Population and Development ,ICPD 94.Summary of the programme of action [Internet]. Partners-popdev.org. 1994 [cited 15 June 2011]. Available from: http://www.partners-popdev.org/icpd/ICPD_POA_summary.pdf
6. Shaikh BT, Rahim ST. Assessing knowledge, exploring needs: A reproductive health survey of adolescents and young adults in Pakistan. The European Journal of Contraception & Reproductive Health Care. 2006 Jan 1;11(2):132-7.
7. Singh MM, Devi R, Gupta SS. Awareness and health seeking behavior of rural adolescent school girls on menstrual and reproductive health problems. Indian J Med Sci 1999;53:439-43
8. Parker C, Family Health International. Adolescents and emergency contraceptive pills in developing countries. Family Health International; 2005 May.
9. Statistics [Internet]. UNICEF. 2011 [cited 16 June 2011]. Available from: https://www.unicef.org/infobycountry/pakistan_pakistan_statistics.html
10. Bott S , Jejeebhoy J. Adolescent sexual and reproductive health in South Asia: an overview of findings from the 2000 Mumbai conference. [Internet]. Popline.org. 2003 [cited 10 June 2011]. Available from: https://www.popline.org/node/233224
11. Lee LK, Chen PCY, Lee KK, Kaur J. Menstruation among adolescent girls in Malaysia: a cross-sectional school survey. Singapore Medical Journal 2006, 47(10):869-8
12. Zegeye DT, Megabiaw B, Mulu A. Age at menarche and the menstrual pattern of secondary school adolescents in northwest Ethiopia. BMC women's health. 2009 Dec;9(1):29.
13. Chumlea WC, Schubert CM, Roche AF, Kulin HE, Lee PA, Himes JH, Sun SS.Age at menarche and racial comparisons in US girls. Pediatrics. 2003; 111(1):110-113.
14. Addis , Abera Y. Menarche and menstruation related problems and practices among adolescent high school girls in Addis Ababa. In: MPH thesis Addis Ababa University, Department of Community Health; 2004.
15. Attallah NL, Matta WM, El-Mankoushi M.Age at menarche of schoolgirls in Khartoum. Annals of Human Biology. 1983; 10(2):185-188.
16. Montero P, Bernis C, Loukid M, Hilali K, Baali A. Characteristics of menstrual

cycles in Moroccan girls: prevalence of dysfunctions and associated behaviours. Annals of Human Biology. 1999; 26(3):249-243.

17. Padez C. Age at menarche of schoolgirls in Maputo, Mozambique. Annals of Human Biology. 2003;30(4):487-495
18. Dasgupta A, Sarkar M. Menstrual hygiene: how hygienic is the adolescent girl?. Indian journal of community medicine: official publication of Indian Association of Preventive & Social Medicine. 2008 Apr;33(2):77.
19. Lee LK, Chen PCY, Lee KK, Kaur J. Menstruation among adolescent girls in Malaysia: a cross-sectional school survey. Singapore Medical Journal. 2006; 47(10):869-8
20. Aniebue UU, Aniebue PN, Nwankwo TO. The impact of pre-menarcheal training on menstrual practices and hygiene of Nigerian school girls. Pan African Medical Journal. 2009;2(1).

CONFLICT OF INTEREST

None declared.

GRANT SUPPORT AND FINANCIAL DISCLOSURE

NIL

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.