

MENARCHE AWARENESS AMONG FEMALE STUDENTS' IN JUNIOR SECONDARY SCHOOLS IN CALABAR MUNICIPALITY OF CROSS RIVER STATE, NIGERIA

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Abstract

This study assessed awareness of menarche among female students in Junior Secondary Schools of Calabar Municipal Local Government Area of Cross River State, Nigeria. One research question was formulated to guide the study. Literature review was carried out based on the variables under study. Cross sectional research design was utilized. Stratified random sampling technique was used in selecting the respondents sampled for the study. A validated 6 items semi-structured questionnaire was the instrument used for data collection. The reliability estimate of the instrument was 0.75 using Cronbach Alpha reliability method. Data was analysed using the descriptive analysis of frequency and percentages. The result of the study revealed that the awareness level of menarche among students in Junior Secondary School in poor. It was recommended that all mothers irrespective of their educational status should be taught to break their inhibitions about discussing with their daughters regarding menstruation much before the age of menarche.

Key words: Menarche, Awareness, Knowledge, Menstrual cycle, Students,

Introduction

Menarche is the onset of menstruation, and it is one of the most significant milestones in the reproductive life of a woman. It is the hallmark of adolescence, marking the transition from girlhood to womanhood. The mean age at menarche varies from population to population, and is known to be sensitive indicator of various characteristics of populations, including nutritional status, geographical location, environmental conditions, and magnitude of socioeconomic inequalities in a society. For most females, it occurs between the ages of 10 and 16 years, with remarkable variation (Kapowitz, 2016). Studies however suggest that menarche tends to appear earlier in life as the sanitary, nutritional, and economic conditions of a society improves (Abioye-Kuteyi, Ojofeitimi, Aina, Kio, Alulo & Mosuro, 2017). The normal range for menstrual cycles is between 21 and 35 days. While most periods last from 3 to 5 days,

duration of menstrual flow normally ranges from 2 to 7 days. For the first few years after menarche, irregular and longer cycles are common (Adams, 2012). This period is very critical in the life of an adolescent girl because it is mostly associated with so many physical, emotional and physical changes. This period is marked by increase in hormonal secretion, physical differentials etc, and thus any misinformation or lack of information or awareness could be dangerous and detrimental to the evolving adolescent girl.

Awareness of menstruation among adolescent girls is significantly lacuna. Several research studies exposed this discrepancy, and showed a low level of knowledge among girls about menstruation when they first encountered it (Khanna, Goyal & Bhawsar, 2015). Social prohibitions and the parents 'negative attitude in openly discussing the related issues have blocked adolescent girl's access to the right kind of information, particularly in rural and

tribal communities. Several studies have shown that most adolescent girls had incomplete and inaccurate menstrual physiology and hygienic knowledge. It also revealed that mothers, media, peers, teachers and relatives were the key sources that gave the adolescent girls knowledge about menstruation (Mudey, Keshwani, Mudey, & Goyal, 2016).

Good hygienic practices such as the use of sanitary pads and proper washing of the genital region during menstruation are important. Women and girls of reproductive age need access to safe and gentle, absorbent sanitary products that will protect their health in the long run. Menstrual hygiene and management will contribute directly to (MDG)-2 on universal education, MDG3 on gender equality and women's empowerment. However, focus on this topic is far from adequate, and also literature on gender mainstreaming in Getting the requisite skills, facilities and cultural climate to handle menstruation hygienically and with dignity is a key priority for men and girls.

This period of puberty in females is associated with beginning of menstruation. In adolescents who have undergone menstruation for the first time, menstrual hygiene management (MHM) is restricted by logistical, social, economic and cultural factors such as the cost of commercial sanitary pads, lack of water and latrine facilities, lack of private rooms for changing sanitary pads and inadequate knowledge on the facts of menstrual hygiene. Adolescents reach unprepared puberty and sometimes the knowledge they receive is limited and surrounded by taboos. There is emphasis on the reproductive cycle in certain curricula but not on the specific questions. During menstruation teenage girls face problems related to menstrual hygiene management in public places. UNICEF reports that during menstruation 1 in 10 school-age African girls do not attend school. Similarly, figures from the World Bank revealed students were away from school every 4 day monthly due to menstruation.

Lack of knowledge, stereotypes and adverse menstrual attitudes may contribute to a

negative self-image among girls experiencing menstrual hygiene for the first time and the culture of silence around menstrual hygiene, further increases menstrual understanding as something shameful that needs to be concealed (UNESCO, 2014). Therefore, to break a taboo's silence and handle menstrual hygiene effectively, teenagers need to understand the biological transition they are undergoing and be prepared with the skills to cope with it (UNESCO, 2014). Nevertheless, studies in the Metropolis of Calabar discussing menstrual hygiene skills are scarce.

Very few researches among adolescent girls have addressed the comprehensive aspects of menstrual activities. It was therefore considered as relevant to investigate the awareness of menarche among the school going adolescent girls. The data about their level of knowledge and the practices which are followed by them with respect to menstruation are beneficial for planning a program for improving the awareness level with respect to their life processes and promoting their quality of life. Hence, this study was carried out to find out the awareness level of menarche among girls in Junior Secondary Schools of Calabar Municipal Local Government Area of Cross River State, Nigeria.

Literature review

Menarche is one aspect of the maturation cycle, but is also described historically as the predictor of maturity and preparation for marriage and sexual activity for girls. While menstruation is a natural phenomenon, it is linked to many misconceptions and practices that often lead to adverse results. In the Nigeria culture, menstruation is still treated as something unclean or dirty and is strongly linked to misconceptions and cultural constraints (Dhingra & Kumar, 2009).

Hinaben and Ravikant (2016) conducted a cross-sectional study of GEMRS Medical College, Valsad, on medical students. This study involved a total of 203 girls of first, second and third year MBBS medical students between 16-22 years of age group. Data was collected using Questionnaire, pre-designed

and pre-tested. Using Microsoft Excel 2010 the data was entered and evaluated, and correct statistical test was applied. Of 203 children, percent had menstrual awareness before they first encountered menstruation (menarche) and it was found that their Mother were the main source of information. Menarche median age was 14.5 years. 86.70 percent of girls use sanitary napkins where girls use clothes and reuse them as 13.3 percent. Many girls consider sanitary napkin to be cool, causing sufficient absorption but also a costly drawback and not being readily accessible anywhere. To all teenage girls, menstrual hygiene is a critical element of health education as it deals with health consequences. To improve menstrual hygiene among adolescent girls health napkins should be made available uniformly at an affordable price.

Neelima, Pooja, Neha, Wavare, Bishal and Madan (2013) assessed menstrual hygiene awareness, attitude and practice among first year medical students in North India. A cross sectional study was conducted among 50 first year MBBS girls from Sri Aurobindo Medical Sciences Institute, Indore. Through a pre-formed, pre-tested questionnaire. Statistically the data were analyzed with simple proportions. Many girls (n=89, 50.56 percent) were 18-20 years in the age group. Surprisingly, before menarche 32.38 percent (57) of girls were unaware of menstruation. The median age of menarche attainment was 9-17 grades. We observed that menstrual behaviours were inculcated by their mothers in 35.22 percent (n=62) of students. During their menstrual cycle, 152 girls (86.36 percent) used sanitary napkins as an absorbent material. 42% (73 girls) did vaginal wash daily. Of the girls, 57 percent (n=100) had daily menses. 82 percent (n=144) of girls had premenstrual symptoms registered. 12 percent of girls knew about menstruation in different types of myths. Throughout menses, 34 percent (n=59) of girls were required to undergo restrictions.

The first menstruation also called "MENARCHE" is an indication of female developmental maturation whose appearance defines the transition from childhood to

adolescence. Menarche is characterized as one of the few rites of passage still valued for all adolescents in modern societies, irrespective of their social group (Jose, da., Aline, & Maria, 2012). At the beginning of puberty, some girls are not prepared for thelarche and menarche which leads to consequences such as negative body image, facial anxiety, diminished self-esteem and delayed breast tumor diagnosis (Menarche, 2018).

Gunjan and Prasuna (2016) conducted an observational study to establish menarche sensitivity and menstruation in both men and women. A study of 100 men and 100 women over 15 attending the Rural Health Training Center Ambulance Department in Delhi, India. Information on their knowledge and attitude towards menarche, and menstrual hygiene was collected. Data collected was, stored, processed and analyzed via SPSS. Chi square has been checked. 38 percent of women were unaware of the usual length of the menstrual cycle and the frequency of bleeding, while 56 percent of men did not know the same. Thirty-five percent of women thought menstrual symptoms were natural and required no help.

Creating knowledge of the value of menstrual and menstrual hygiene will great reduce the burden of menstrual problems. Male participation in these women's issues will help break the stigma of shame, and help improve menstrual hygiene.

Deepa, Twinkle, Teny, Farah and Avita (2019) conducted a cross-sectional study among both male and female students studying at a college university. All students present on the day of the study were given a pre-designed, face-validated structured questionnaire. 372 (49.1 percent) of the 758 students were male, and 386 (50.9 percent) were female. The median age for this was 19.35 ± 1.40 years. A combined score above 50 percent, i.e. 07/14, was deemed adequate for awareness. The mean score on information was 7.51 ± 2.52 . Overall 389 students (51.3 percent) had sufficient knowledge. Niveaus of knowledge among females (72.3 percent) were substantially better than males (29.6 percent). For the female students, 384 (99.5%) were aware for sanitary

napkins, 165 (42.7%) menstrual cups, 12 (3.1%) tampons and 254 (65.8%) reusable cloths, but the majority (96.9%) chose to use sanitary napkins. During menstruation, 42.6 per cent-of the female students were required to obey such social and cultural restrictions. The internet became the primary source of information about menstruation and various menstrual items. Documented myths concerning menstruation included the assumption that menstrual blood is dangerous (75.2 per cent). The optimistic menstrual attitude was weak among both male (21.5 per cent) and female (48.4 per cent) students. Levels of knowledge among males were low compared with females. Menstrual hygiene practices were acceptable. Nevertheless, stereotypes among both genders were widespread suggesting the need for health education among college-going children.

Methodology

The analysis used a concise, cross sectional research method. Calabar Municipal Local Government Area, Cross River State, Nigeria is the area of study. The municipality of Calabar has common areas such as Etta Agbo, Satellite Village, and Eight Miles. The research area has a total population of 285,524 people as of the National Population Commission of Nigeria (web) and National Bureau of Statistics (web) census estimate for 2018. This consists of nine

(9) council-wards. It has an area of 142 km² and lies between latitude 04 ° 15 'and 5 ° N and longitude 8 ° 25' E. the municipality is limited by the exceptional Kwa River by Odukpani Local Government Area in the northeast.

The study population is 1,893 students of the 7 secondary schools in Upper Basic Education. This research used the stratified random sampling in sampling ten percent of the population, which is three students in 189 junior high school, otherwise called upper basic education students in the municipality of Calabar. Purposive sampling technique was used only for JSS3 students in administering the instrument. A validated 10-point, four-point updated likert scale questionnaire titled; Menarche Questionnaire Knowledge (AMQ) was the instrument for data collection. Dividing the instrument into two parts. Part A and B. Section "A" was students personal bio-data such as age, ethnicity, parental education, and parental occupation, while Section "B" is an open-ended questionnaire requesting information from students about their level of menarche knowledge. The instrument's reliability index was 0.86 using reliability method Cronbach Alpha. Data was analysed using the frequency count and percentage descriptive analysis.

Results**Table 1**

Frequency distribution of the personal characteristics of the respondents (N=189)

SN	Sub variables		Frequency	Percentage
1.	Age	10-12	59	31.2
		13-14	87	46.0
		15 above	43	22.8
2.	Religion	Christianity	186	98.4
		Muslim	3	1.6
3.	Parent education	No formal education	72	38.0
		SSCE	61	35.4
		Tertiary	50	26.5
4.	Parental occupation	Farming	44	23.3
		Business	69	36.5
		Civil servant	51	27.0
		Public servant	25	13.2

Table 1 depicts the personal characteristics of the study subjects. The study showed that age of the respondents (n=189) varied from 10 and above years. The result revealed that 59 respondents representing (31.2%) were 10-12 years of age; 87(46.0%) respondents were between 13-14 years, while 43 (22.8%) respondents were 15 years and above. Further examination showed that 186 respondents representing (98.4%) were practicing Christianity, while 3 were Muslims. In terms of parental education, the result of the study also revealed that 72 respondents representing (38.0%) had no formal education; 67(35.4%) respondents SSCE. while 50 (26.5%) respondents had various degrees at tertiary level. In terms of parental occupation, the result further revealed that 44 parents respondents representing (38.0%) were farmers; 69(36.5%) were business men/women. 51(27.0%) were civil servants while 25 (13.2%) were public servants

Table 2

Frequency count and percentages on awareness level of menarche by students {N= 189}

SN	Sub variables		Frequency	Percentage
1.	From who did you get to know about Menstruation	Mother	68	36.0
		Sisters	67	34.4
		In class	54	28.6
2.	What are your belief toward the causes of menarche?	Hormonal	53	28.0
		Natural	78	41.3
		Physical	58	36.7
3.	Ever discussed about menstruation with friends?	Yes	79	41.8
		No	110	58.2
4.	Sanitary material that can possibly be used during menstruation	Clean homemade pad	48	25.4
		Commercially made pad	89	47.1
		Under wear	41	21.7
		Home made with cloth pieces	11	5.8
5.	Awareness about menarche before menstruation	Adequate	68	36.0
		Inadequate	121	64.0

Restrictions that should be followed during menstruation

Should not go to school	78	41.3
Cannot play sports / do	68	36.0

Exercise

The outcome in Table 2 showed that 68 respondents representing (36.0%) got their knowledge about menstruation from their mothers; 67(34.4%) respondents from sisters, while 54 (28.6%) respondents from class mates. The study further showed that 53 respondents representing (28.0%) belief that the causes of menarche are hormonal; 78(41.3%) respondents belief it is natural, while 58 (36.7%) belief it is physical.

The study also showed that 79 respondents representing (41.8%) have discussed about menstruation while 110(58.2%) never discussed about menarche. The study further indicated that 48 respondents representing (25.4%) belief that clean homemade pad can be used ad sanitary pad ; 89(47.1%) respondents as commercially made pad, 41(21.7%) respondents as underwear, while 11 (5.8%) respondents home made with cloths piece.

The study also indicated that 68 respondents representing (36.0%) had adequate knowledge about menarche while 121 representing 64.0 had inadequate knowledge. In terms of restriction during menstruation, the study revealed that 43 respondents representing (22.8%) said they will not enter the house; 78(41.3%) respondents will not go to school, 68(36.0%) respondents said they cannot play sports /do exercise. All through the study, it was observed that the awareness level of students is very low, and this is a problem to menstrual cycle management.

This study supports the study of Menarche (2018) that some girls are not prepared for thelarche and menarche at the commencement of puberty which leads to consequences such as negative body image, appearance anxiety, lowered self-esteem, and delayed diagnosis of breast tumors. The study also supports UNESCO, (2014) that lack of information, misconceptions and adverse attitudes to menstruation may lead to a negative self-image among girls who are experiencing menses for the first time and the culture of silence around menstrual hygiene further increases the perception of menstruation as something shameful that needs to be hidden (United Nations, educational, scientific and cultural organization

Conclusion

Improper menstrual hygiene is important risk factor for reproductive tract infections and is a vital aspect of health education for adolescent girls. Today millions of girls and women are sufferers of infectious diseases and its complications, often the infection may transmit to the offspring of the pregnant mother. If adolescent girls are made aware of menstrual hygiene and reproductive health right from the early adolescent period through compulsory sex education in school curriculum, educational television programmes, and knowledgeable parents, menarche will not appear them and they will also be better informed and handle issues associated with invariable strange and shocking for a healthier living.

Recommendation

It was recommended that all mothers irrespective of their educational status should be taught to break their inhibitions about discussing with their daughters regarding menstruation much before the age of menarche appearance.

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