

Original Research Article

The plight of menstruating secondary school-girls: a wake-up call for parents and the school system

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ABSTRACT

Background: This study assessed secondary schoolgirls' menstruation experiences and the appropriateness of the school environment in fostering menstrual hygiene management in Tanzania's rural settings.

Methods: A cross-sectional study was conducted among 506 secondary schools girls from Mara Region, Tarime district in Northern Tanzania. Self-administered questionnaire were used for generating data which was analysed using SPSS version 20.

Results: The age at menarche for the 506 secondary schoolgirls in the study ranged from 9-17 with a median age of 14 years. Less than a third (31.6%) were informed about menstruation and how to manage it before the first experience. Mothers were the first source of information to 50.2% of the girls. Slightly more than a half (51.4%) were scared and 43.3% were uncomfortable about the experience when it first occurred. More than half (54.8%) missed school for two days and 18% could not go to school for four or more days during menstruation. Almost three-quarters (73.5%) did not have access to sanitary pads. None of the schools had suitable and appropriate WASH facilities to support girls during menstruation.

Conclusions: Secondary school girls in Tarime district experience various challenges during their menstruation. Improved awareness and knowledge on menstruation, enhanced access to sanitary and WASH facilities at the school environment would improve menstrual hygiene management among secondary schoolgirls and boost their school attendance and participation in education generally.

Keywords: Menstruation, Menstrual hygiene management, Rural Tanzania secondary school girls

INTRODUCTION

Menstruation is a natural biological process that adolescent girls and pre-menopause women experience.¹ The onset of menstruation (menarche) is an important developmental stage in the life of a girl and signals her transition from childhood to the reproductive age of adulthood.² Major psychological and physiological changes usually occur just before and during this period.³ Menstruation also occurs when adolescent girls are under the influence of different socialisation agents including the family especially mother, father, the school system,

and the community. The extent to which adolescent girls learn about what changes occur before and during menarche mean, to a large extent influence how they cope with the initial event and related implications in their future lives. The learning process includes understanding the changes that take place in their body before menarche, the first menstrual experience, and how to take care of themselves during menstruation.

In several African cultural settings, women celebrate the onset of menarche and teach the young girl what this means to their future roles and duties as a grownup and a future wife.⁴

Effective Menstrual Hygiene Management (MHM) requires young girls to use clean menstrual management materials capable of absorbing the blood and to be changed in privacy as often as circumstances demand during the period.⁵ It also requires girls to access information on changes which occur during pubescence, the first menstrual experience, use of soap and water for personal hygiene as well as access to appropriate facilities for disposing of used menstrual management materials. Such crucial information is expected to be covered by different socialisation agents before the onset of menarche. Since girls attain menarche at a time when parents and the school system have a strong influence on their learning, both the family and the school system should prepare these girls to understand basic facts linked to the menstrual cycle and how to handle it with dignity and without fear.⁶ This orientation requires families and the school system to facilitate the acquisition of required knowledge and easy access to the material resources to absorb the menstrual blood, disposal facilities, and ensure privacy when changing used materials as necessary.⁵ However, available literature show that more than 50 per cent of adolescent girls in low-and-middle income countries experience challenges during this period especially those living in rural areas.^{5,7-9}

Generally, many adolescent girls enter menarche ill-prepared with inadequate knowledge and skills about menses and how to manage their periods.^{3,7,10,11} There is a wide gap between what girls know and what they do during menstrual periods between urban and rural areas.¹² Recent reviews on the health and social effects of menstrual hygiene management revealed that girls reach puberty not only with limited knowledge but also with misconceptions about menstruation. Part of this challenge appear to be parents and other socialisation agents who are ill-informed about the biological changes that take place during menarche, generally, feel uncomfortable to discuss topics related to sexuality, and reproduction including menstruation with young girls.^{13,14}

In low and middle income countries, including those in Africa, menstruation is something that many cultures perceive as “dirty” or ‘impure’ and even a curse in some areas or a potential sign of disease.¹⁵⁻¹⁷ Consequently, restraints from all sources of socialisation for menarche leads to social dishonour that affects young girls physically and emotionally during their menses.^{15,17} A study involving school-girls that was conducted in Kenya found that menstruation was associated with feelings of fear, shame, distraction and confusion and was kept as a secret.^{9,18} In some cases, this occurrence was only revealed to the mother and sisters in the family.¹¹

Access to water, sanitation and hygiene services is a basic right to girls and a pre-requisite for menstrual management and hygiene practices among menstruating young girls and women in general.^{19,5} Yet, water availability in many families and schools particularly in rural areas remains a challenge.^{20,21} Indeed, many schools

face shortages of water for washing hands and general cleanliness during menses.²² They also lack amenities such as toilets with privacy for changing pads during menstruation, sanitary waste disposals and soap when water is available.^{9,23} This creates serious challenges for menstruating girls during their monthly periods.²⁴

A study conducted in Tanzania revealed that only 11 per cent of the schools surveyed met the national standard of 20 girls per hole and six per cent of the schools had no toilet at all. It also revealed that only 40 per cent of the toilets had a door, one per cent had hygienic facilities such as soap, and 8 per cent had water for hand-washing.²⁵ Research results on school-girls’ menstruation experiences and the appropriateness of the school environment for menstrual hygiene management is one of the important inputs for improving education of girls at all levels in Tanzania’s education system. This article presents the reality of what the situation is like in secondary schools in Tarime district in north-western Tanzania.

METHODS

The cross sectional study was conducted in Tarime rural district of Mara region in July 2018. Tarime district is one of the rural districts in North-western Tanzania. In the north, the district is bordered by the Migori, Trans-Mara and Kuria East and West Districts in Kenya and in the east by the Mara game reserve. In the south, it is bordered across the Mara River by Serengeti and Butiama districts and in the west by Rorya district in Tanzania. The district has a population of 339,693 people out of which 51.9 per cent are females. The district had 129 primary schools, 15 secondary schools and two tertiary institutions.

The study population was secondary school girls in the study area and data were generated using self-administered questionnaires. Six schools were randomly selected from a sampling frame of all secondary schools in the district. From each selected school, a sampling frame consisting of all classes from the school was constructed and one class was randomly picked for the study. All the girls in the selected class participated in the survey. Apart from social demographic characteristics, the study tool collected information on the onset of menstruation, when what to do during menstruation was learned, and the challenges they faced during their menstrual periods. Study participants were also asked about what happened when they experienced menses while at school and the extent to which the schools had basic facilities for menstruating girls. The data collection tool was first designed in English and later translated into Kiswahili, a common language understandable among practically everyone in the country.

An observation checklist was used to generate data on the school environment and its suitability to accommodate and support the needs of menstruating girls. These observations focused on the availability of water, privacy

for changing soiled pads, availability of emergency pads in the schools, waste disposal facilities for used menstrual pads, and availability of pain relief medication in the schools.

Data analysis

Collected data was cleaned, computerised and analysed using the Statistical Package for Social Sciences (SPSS) version 20. The information generated using the observation checklist was entered into the excel spread sheet and analysed manually.

RESULTS

Table 1: Respondents’ demographic characteristics.

Variables	Frequency (N=506)	Percentage
Parents’ marital status		
Married	373	73.7
Separated	49	9.7
Single	37	7.3
Widow	38	7.5
Widower	8	1.6
Divorced	1	0.2
Fathers’ level of education		
Illiterate	66	13.5
Primary	226	46.7
Secondary	135	27.6
Post-secondary	62	12.7
Mothers’ level of education		
Illiterate	94	18.4
Primary	285	56.3
Secondary	109	21.5
Post-secondary	18	3.6
Occupation of fathers		
Peasant	311	61.5
Petty business	93	18.4
Government employed	48	9.5
Private employed	19	3.8
Not employed	15	3.0
Others	4	0.8
Occupation of mothers		
Peasant	236	46.6
Petty business	201	39.7
Government employed	19	3.8
Private employed	8	1.6
Not employed	40	7.9
Others	2	0.4

A total of 506 secondary school girls participated in this study. Their age ranged from 13 to 20 years with median age of 16 years. Almost all of them (98.2%) were Christians and the rest were Muslims. About three-fifths (61.9%) lived with both parents, 17 per cent lived with mothers as single parents, 7.3 per cent lived with their

fathers and 5.6 per cent had other accommodation arrangements including living with other relatives. Most (73.7%) of the girls had married parents whereas a minority had parents in other marital categories. Most of their parents had primary education and were mainly peasant farmers. The study respondents’ demographic characteristics are as summarised in Table 1.

The first menstruation experience

The age at which the girls experienced their first menstruation varied from 9 to 17 years with a median age of 14 years. Less than a third (31.6%) of the girls were aware of menstruation during their first experience. Half of them (50.2%) mentioned mothers as their main person with whom they first discussed their first menstrual experience and 18.8 per cent learned about it from their sisters. Other information sources on menstruation included female teachers (13%), friends (6.1%), male teachers (5.5%), other relatives (2.4%) and healthcare workers (2.4%). Fathers played a minimum role as a source of such information. Only 0.8 per cent received their initial menstruation information from their fathers. The level of education of the mother did not have any significant association with when the girls were informed about menstruation (chisq=3.479; p=0.481) neither was it significantly related to the level of education of their fathers (chisq=6.585; p=0.160).

Reactions to their first menstruation period

The girls’ reaction to their first menstruation period varied considerably. Slightly more than a half (51.4%) were scared and 43.3 per cent felt uncomfortable. Only 6.1 per cent were happy with this transition from childhood to adulthood as summarised in Figure 1.

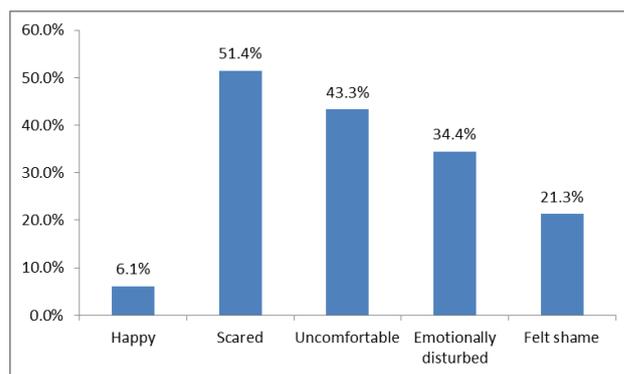


Figure 1: Respondents’ reaction to the first menstruation period.

When their reactions to the first menstrual experience was examined in relation to when they were informed about it, 8.8% of the few who were happy and 61.9% those who got scared were those who were informed about menstruation before the onset of their first period. Among those who were scared, 44.2% were from those who had

prior information on this biological change during the first menstrual experience.

Confidants of the first menstrual experiences were mainly mothers (52.5%) and sisters (25.7%). Generally, girls in all the age groups informed their mothers about their first menstrual period. Those who were 14 years old and younger were more likely to tell their sisters or other confidants such as friends, teachers and healthcare workers instead of their mothers. These variations on the person to whom the first menstrual period was initially revealed to were statistically significant ($r^2=13.520$; $p=0.001$) as summarised in Table 2.

Table 2: Percentage variation of age by type of confidants on first menstruation period.

Confidant	Age (years)	
	<15 (n=267)	≥15 (n=239)
Mother	45.7	61.5
Sister	28.5	22.6
Others	25.8	15.9
Total	100.0	100.0

Products used during the first menstrual period were as summarised in Figure 2:

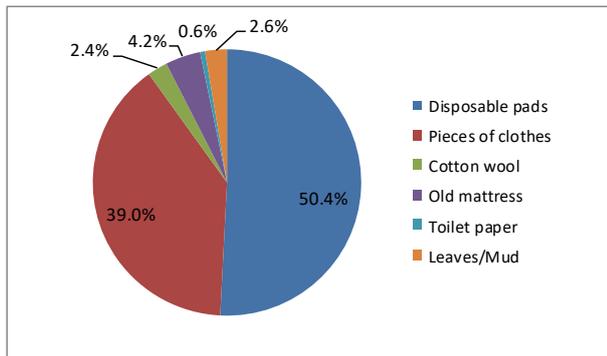


Figure 2: Menstrual products used during the first menses.

About a half (50.4%) of the girls used disposable pads and 39 per cent used pieces of old clothing. The rest used cotton wool, pieces of old mattresses, leaves and muds.

Suitability of school environment for menstruating girls

Many girls involved in this study missed school for several days during their menstrual periods. A month before the study, 76.7 per cent of the girls intermittently attended school during their menses. More than half (54.8%) missed school for two days and 18.4 per cent could not go to school for four or more days. Reasons given for missing school include fear of staining their clothes (42.6%); dysmenorrhea (18.2%), lack of protective materials (14.2%); feeling uncomfortable (12%); and fear people might know they were in their

periods (10.4%). Almost three-quarters of the girls (73.5%) did not have access to sanitary pads due to lack of money and a few (10.6%) were too shy to buy them. When asked about what they usually did when menstruation started while at school, many of them (57.5%) said they immediately returned home. Almost a quarter (25.9%) said they quietly stayed in class until the time to go home and 16.7 per cent said they pretended to be sick while in class.

A checklist was used to observe the school environment for its suitability to support menstruating girls. All the six schools had separate pit-latrines for both boys and girls. However, none of the schools under review had the national recommended toilet ratio of one pit for every 20 girls. There were 1,117 girls in the schools that were involved in this study and a total of 33 toilet holes. The number of pit holes for the girls ranged from 26 to 39 with an average of 34 girls per a pit hole.

None of the schools had piped water. They mainly used rainwater or fetched water from streams which were far from the school compounds. Regarding privacy in the toilets, only three out of the six schools had toilets with lockable doors. The rest had no proper door locks or the door locks were damaged.

There was no soap or water available in any of the toilets. Only one school had a dustbin for disposing solid wastes including sanitary wares. Garbage was normally disposed of in designated areas within the school compound. Generally it was observed in all schools under review, solid waste was scattered in the school compound, especially around the toilet areas. Largely the toilets were dirty. All the school toilets had urine around the holes. Four schools had faecal materials around the toilets holes and five schools had toilets with foul and repugnant smell, cobwebs around the walls and dust spread all over the toilets. Generally, schools involved in this study did not have a friendly environment for menstruating girls and the toilet facilities available were below the recommended standard for school-girls.

DISCUSSION

Menarche is a life stage which has both social and biological significance for teenage girls. It marks the beginning of a girl’s reproductive life, and has crucial implications for adolescent sexual and reproductive health outcomes.^{26,27}

Generally it is expected pubescent girls should be taught about changes which usually occur as they mature into their first menstrual period and what the first menstrual period entails as well as what they should do when in such a condition. Socialization agents especially parents and the school system should play a key role in facilitating acquisition of expected knowledge and skills particularly because maturing girls are under their jurisdiction most of the time.

In different cultural settings across the world, there are different ways in which young girls are prepared for this life event.²⁸⁻³⁰ In Africa, for example, historically there was a variety of rituals that were performed for girls when they attained menarche.^{13,27} These rituals generally marked the stage where girls came of age and transitioned to womanhood and can bear children.²⁷ Little is known about the extent to which parents, schools and the community socialised pubescent girls on the body changes, which took place just before menarche and what menstruation means as well as what they needed to do when it occurred.

In this study, similar to what has been reported in other studies less than a third of the study participants were prepared for the first menstrual experience and how to manage the condition.^{3,9,10,13} Consequently, the first menstrual experience has emerged as 'frightening', 'confusing' and 'shame-inducing'.³¹ Similar sentiments were expressed by girls who were involved in this study. There is a need to ensure girls are timely and correctly prepared for menarche to build their self-esteem, confidence and skills in managing this condition and in so doing improve this component of their reproductive health knowledge and skills. This calls for parents, especially the mother and the school system, to come up with strategies aimed to improve the knowledge base of young girls on menstruation and how to manage it.

Mothers appeared to be among major sources of initial information on menstruation for girls with schools playing a pre-dominant role primarily because many girls attain menarche while in school. Teachers and mothers also emerged as the main source of girls' information on menstruation from other settings.³² However, what the teachers actually covered in schools and mothers at home on the menses remained largely unknown. In this regard, studies show that mothers and teachers feel uncomfortable to discuss menses and its management among young girls because they had largely not been exposed to such knowledge.^{32,33} Moreover, little is known about what they know and the extent to which they can transfer such knowledge to girls as they mature and subsequently experience their first period. Some studies have shown that usually these agents of socialisation lack the necessary skills and knowledge of what is to be taught as young girls mature to their first menstrual experience.^{13,32} The situation becomes more complicated in cultural settings where taboos, secrecy and embarrassment surrounding menstruation predominate and pubescence girls shy away from consulting parents or teachers on changes taking place in their bodies and what they should do.³² Efforts should also be made to promote positive cultural norms on menstruation by facilitating an open discussion on it as girls approach menarche. Furthermore, an assessment of the content of the information shared by girls during pre-and post-menarche by parents and the school system could provide insights on the knowledge gaps and inform strategies on what should be done by parents and the school system to

improve the challenges girls are currently experiencing while in school.

Similar to what was reported elsewhere, schools lack proper environment for menstruating girls.^{34,35} Many schools in this study lacked running water and soap and did not have the privacy necessary for changing and for disposal of used menstrual products. Consequently, most girls during their periods faced problems including not going to school for several days. Secondary school girls missing school during their menses appears to be fairly common in many African countries and in other LMICs due to poor access to sanitary materials, water, hygiene and sanitation facilities in the schools.^{9,13,35,20,36} This calls for interventions to strengthen the school environment for a friendly and supportive MHM environment to ensure access to absorbent sanitary materials and adequate WASH facilities for girls' conformability and improved school attendance during their periods.

CONCLUSION

The study findings indicate that secondary school girls in Tarime district experience various challenges during their menstruation periods. Many of these girls enter menarche uninformed and less prepared for the event. As a result, some of them fail to attend school during their menstrual period due to inadequate access to menstrual management materials and WASH facilities coupled with poor school environment for adequate menstrual hygiene management. A similar situation was obtainable in many secondary school girls in Tanzania. This calls for interventions that can overcome the challenges parents and the school system face in their attempt to be better equipped with what is required to improve the wellbeing of menstruating school-girls in the country.

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