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Economic Determinants and Cultural Determinants of Menstrual Hygiene Behaviour of In-School Female Adolescents in Aba Education Zone, Abia State.

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Economic hardship and inflation recently in the country has affected the prices of sanitary pads and tampons which may lead adolescent girls to use unhygienic materials for menstruation. Menstrual hygiene behaviour of adolescents revolve around four sustainable development goals (SDGs) namely good health and well being, quality education, clean water and sanitation and reduced inequalities. Consequently, determinants such as economic and cultural determinants make female adolescents vulnerable to mental, emotional and physical health problems especially during their menstruating days as a result of economic barrier to the accessibility of hygienic which may significantly front high rate of school absenteeism, as well as seclusion from social activities, illness and infections, and bad reproductive health of in- school female adolescent. Therefore, this study examined the economic and cultural determinants of menstrual hygiene behavior of in school female adolescents in Aba Education zone, Abia State. The descriptive survey research design was adopted for the study. The population comprised of 101,031 female students within Aba Education Zone. Sample of 540 female in-school adolescents within Aba Education Zone were used for the study. A multistage sampling technique was used to sample the respondents. The instrument used for data collection was a researcher's design questionnaire, validated by three experts in Health Education. The reliability co-efficient of the instrument was calculated using Cronbach Alpha method with an overall reliability index of 0.84. T-test statistic was used to test all the hypotheses. The results showed that in school female adolescents does not differ in the factors that determines the menstrual hygiene behaviour in Aba Education Zone, Abia State, on the basis of location and education level (t-value 0.969 (0.336), t-value 0.404 (0.687), t-value 0.290 (0.201), t-value -1.470 (0.140) respectively. Furthermore, in school adolescents agrees that economic and cultural determinants affect their menstrual hygiene behaviour. It was concluded in the study that economic determinants, cultural determinants, location and education level has no significant impact on menstrual hygiene behaviour of in school female adolescents in Aba, Abia State. Therefore, it is recommended that Government should subsidize or totally remove value added taxes on pads. They should partner with feminine hygiene product companies.

Keywords: Menstrual hygiene behaviour, Economic, Cultural, In-School Female Adolescents.

INTRODUCTION

The onset of menstruation represents a landmark event in pubertal development of the adolescent girl and every mature woman menstruates on the average of three to five days monthly until menopause. Menstruation is a normal process of the body and if proper knowledge is given regarding its onset, management and problems associated with it; then it can be handled like all other body functions. However, many girls in developing countries may lack appropriate knowledge regarding menstruation and hygiene related practices during menstruation. Menstruation is a cyclic uterine bleeding in response to cyclic hormonal changes (Ladewig, London & Olds, 2012). While some information might be available from school and friends, parents should address the practical concerns that puberty brings, for instance, new hygiene needs (e.g., menstrual periods, body odours), clothing

and product needs (e.g., cloth vs. pads or sanitary towel). Mahon and Fernandes (2010), asserts that in order for women to live a healthy productive and dignified lives, it is essential that they are able to manage menstrual bleeding effectively.

Menstrual hygiene behaviour of in-school female adolescents is important for the reason that its affects their self esteem and health which invariably reflects on their performance in school and generally their social life. Consequently, Otwani and Juma (2017) revealed that most girls therefore attain menarche blindly and meet their first menstrual experience with shock, anger, sadness and confusion when they stain their clothes. Menstrual hygiene behaviour is equally vital in proper disposal of menstrual wastes. Proper disposal of menstrual wastes is essential in order to ensure sustainable management of menstrual waste. Whether it is a cloth napkin or a disposable napkin, efforts must be taken that they are properly disposed. In schools especially, disposal of sanitary cloth and sanitary napkins in girls' toilets is a big problem. It affects the proper functioning of the toilets when disposed in the toilet and serious health problems if thrown out in garbage dumps or in the open. In school and other public toilets this is one serious problem to contend. Often we see indiscriminate throwing of menstrual waste in the drains/toilet, thus leaving them clogged.

To manage menstruation hygienically, it is essential that girls have access to water and sanitation. They need somewhere private to change sanitary cloths or pads; clean water for washing their hands and used cloths; and facilities for safely disposing of used materials. This is so important for the reason that poor menstrual hygiene behaviour can cause infections thereby contributing to absenteeism from school. Patle and Kubde, (2014) reveal that poor menstrual health behaviour in schools have been shown to cause adolescent girls worry and humiliation, contribute to monthly absenteeism and lead to poor performance in schools. United Nations Children's Fund UNICEF (2010) stresses the importance of school toilets which are built to accommodate menstruating girls' specific needs for privacy, space, washing facilities and correct disposal or cleaning of menstrual pads. An environment where these hygienic needs are met can lead to improved dignity and attendance, thus improving girls' education and consequently the development of a country. Sommer (2010), suggests that acquaintance with a country's beliefs around menstruation and providing girls with correct information about puberty are important elements in a holistic school menstrual hygiene behaviour package.

Poor menstrual hygiene behaviour can also cause many infections like fungal infections, Reproductive Tract Infection (RTI) and Urinary Tract Infection (UTI). Also unhygienic behaviour leaves women vulnerable to infertility. Urinary tract infection (UTI) is the most common type of infectious disease in community practice after respiratory tract infection. A study conducted to determine the prevalence of community acquired-UTI in rural Odisha, India showed that prevalence of UTI in females was 45.2 % (Dash, Mohanty, Panda & Parida, 2013). Urinary tract infections are believed to be among the most common form of infection in girls and women of menstruating age and this is held to be due to unhygienic practices (Groen, 2015). Moreover, as reported in a cross sectional survey, an additional source of infection is presented by 'the type of absorbent used during menstruation,' which is said to be 'of paramount importance since reusable materials could cause infections if improperly cleaned and poorly stored' (Oche, Umar, Gana & Ango, 2012). However reusable material may not be well

sanitized because cleaning is often done without soap and with unclean water, and social taboos and restrictions force drying indoors, away from sunlight and open air (Narayan, Srinivasa, Pelto & Veerammal, 2011). Unhygienic washing behaviour is particularly common in rural areas and amongst adolescent girls in lower socio-economic groups.

To maintain good hygienic standards, it is important to kill harmful bacteria that cause infections by washing clothes used as sanitary pads properly with soap and water and drying them under the sun. However, it has been shown that this is most often not possible for school girls in developing countries. The lack of necessary facilities, including safe water and appropriate toilet facilities, and the absence of opportunities and proper amenities to keep clean and change pads and menstrual cloths as needed hinder many of the girls from putting to use proper practices of menstrual hygiene. This poses a health risk to them (Narayan et al, 2011; Omidawar and Begun, 2010). In-school female adolescents need to be aware of biological facts and good hygienic behaviour in order to surmount the health challenges associated with poor hygienic behaviour. There are several determinants that could affect menstrual hygiene behaviour of in-school female adolescents.

Determinant can be describes an element that identifies or determines the nature of something. Australian Institute of Health and Welfare (AIHW) 2011, Determinant of health is any factor that can increase the chances of ill health (risk factors) or good health (protective factors) in a population or individual. For example economic and cultural determinants may have unfavorable effect on menstrual hygiene behaviour of in school adolescents female. The economic status of a girl or her family can affect behaviour related to menstrual hygiene. Kumar and Srivastava's (2011), reveal that117 adolescent girls and 41 mothers in Ranchi, India shows that the socio-economic status has direct influence on the menstrual practices of girls. The study made it clear that girls from rich families could afford sanitary pads easier than girls from poor families. UNICEF (2010) reports practices among girls in Bangladesh, similar to the practices in West Bengal which are caused by poverty.

Furthermore, majority of females especially in rural areas use reusable clothes from torn old cloths to absorb menstrual blood. In order to kill harmful bacteria that can cause infection, cloths should be washed with soap and dried under sunlight. Yet some of the girls and women cannot afford soap to wash the piece of cloths very well. Most often women and girls hid the cloths from sight of men thereby drying them in damp and unhygienic areas. Consequently, they use damp or wet cloths to absorb menses which could be a source of infection. In some of the rural communities, girls could not afford some of the feminine products because of poverty. In a study carried out in south Asia use of sanitary pads was higher among urban School Girls. The reason girls gave for not using sanitary pads, included lack of awareness about sanitary pads, high cost, unavailability and lack of disposal facilities (Mahon and Fernandes 2010). Pilliteri (2011) stated that girls believed that cheap, disposable pads could help them manage menstruation better at school and improve school attendance.

Another important factor that affects menstrual hygiene behaviour of in-school female adolescents is Cultural prejudices, misconceptions and traditions associated with menstruation date as far back as the beginning of time. Extensive studies in India and Nigeria prove that menstruation is still clouded by taboos and cultural restrictions resulting in adolescent girls remaining ignorant of the scientific facts and hygienic

health practices, which sometimes result in adverse health outcomes**.** In rural Nigeria, some believe that burning menstrual cloths will have negative consequences because it is burning human blood. These consequences can cause itching all over the body, the body to change color, and the generation of internal heat in the women's body. Others believe it causes cancer and infertility (Umeora & Egwuatu 2011). The author further noted that some women from rural Igbo tribes in southeastern Nigeria avoid sweetened foods during menses, which are believed to increase both menstrual cramps and flow. Many women bathe more than usual to keep clean during menses. Most women do not participate in sexual intercourse during menses. Some women believe that menstrual blood is toxic to sperm, which can cause both the woman and a man's other wives to become infertile. Menstruating girls are discouraged from carrying a female newborn baby for fear it would lead to menorrhagia later in life. Respondents from one community believe that bathing in a particular river during menses can restore fertility ((Umeora & Egwuatu, 2011).

In a similar view, Busari (2012), states that rural Nigerian adolescents reveal their attitudes toward menstruation, with 62 percent expressing positive belief that menstruation is part of a woman's life, the rest hold more negative views. Twenty percent believe that menstruation is a curse on womanhood, 13% think that God created menstruation to punish women, and 5% agree that females with menstrual problems are suffering from the sins of their forefathers (Busari, 2012). Iliyasu, Aliyu, Abubkar and Galadanci, (2012), reveal that many women report that they are not allowed to pray during menstruation, which is perceived as an unclean time. Hence, Onyegegbu (2011), notes that in Nigeria, the menstrual beliefs of the Celestial Church place many restrictions on women. The Celestial Church originated in Benin in 1947 from a Christian origin and is active in West Africa and many other regions of the world. Beliefs include that a female should not do the following during menses: cook for her husband, go near the yam barn, touch a pepper plant, cross certain streams and village shrines, or attend church services. If a menstruating female is allowed to worship, she should do so only outside the church premises. Additionally, a female should not touch any juju (charm) during menses or it will no longer be effective.

There are many socio-demographic factors that contribute to in-school female adolescent's behaviors towards menstrual hygiene behaviour in secondary schools. The present study is concerned with demographic factors of location and education status. Location has been identified as one of the factors that determine menstrual hygiene behaviour of in-school female adolescent's girls. Location in this study is grouped into urban and rural area. Urban and rural areas have different attributes regarding menstrual hygiene behaviour. Study by Thakre, Thakre, Ughade and Thakre (2012), on Urban – rural differences in menstrual problems and practices of girls students in Nagpur India. The result of the study showed that 60.6% of urban girls were using sanitary pads as compared to 30.8% their rural counterparts, similarly, economic factor of the parents may influence the menstrual hygiene behaviour of in school female adolescents.

High income/moderate social status of the mothers plays an important role in menstrual hygiene behaviour of in school female adolescents. Oche et al. (2012) study in Sokoto, Nigeria reveals that very few girls used unsanitary absorbent materials, and that high costs or non-availability of absorbent materials were seemingly not an issue. This was found to be attributable to

the high economic status of the respondents' mothers in terms of education and gainful employment. Once again, similar findings are reported in yet another study from Southern India (Omidawar and Begun, 2010 as cited by Oche et al, 2012). In addition, education level of the mother and house hold size are also among the economic factor that affect menstrual hygiene behaviour of in school girls. The mother's level of knowledge and exposure goes a long way in impacting the adolescent girl on acceptable menstrual hygiene behaviour to adhere to.

All these economic and cultural factors myths and misconception culminates in repression of feelings which can cause intense mental stress and lead the girls to seek health advice from quacks and persons having inadequate knowledge. As a result many young girls lack appropriate and sufficient information regarding menstrual hygiene which may result in incorrect and unhealthy behavior during their menstrual period, it may also contributes directly to school absenteeism thereby interfering with the quality of education. These problems motivated this research.

Purpose of the Study

The main purpose of the study was to examine the economic and cultural determinants of menstrual hygiene behaviours of in-school female adolescent girls in Aba Education Zone of Abia State.

Specifically, the study intended to:

1. find out the economic determinants of menstrual hygiene in Aba Education zone in Abia State
2. find out the cultural determinants of menstrual hygiene behaviours of in-school female adolescents in Aba Education zone in Abia State

Hypotheses

The following null hypotheses were formulated to guide the study and were be tested at .05 level of significance

Ho[1] There will be no significant difference in the mean responses of urban and rural female in-schools adolescents on the economic determinants of menstrual hygiene behaviours in Aba education zone, Abia State.

Ho[2] There will be no significant difference in the mean responses of urban and rural female in-school adolescents on the cultural determinants of menstrual hygiene behaviours in Aba education zone, Abia State.

Ho[3] There will be no significant difference in the mean responses of junior and senior secondary schools students on the economic determinants of menstrual hygiene behaviours of in-school female adolescents in Aba education zone, Abia State.

Ho[4] There will be no significant difference in the mean responses of junior and senior secondary schools students on the cultural determinants of menstrual hygiene behaviours of in-school female adolescents in Aba education zone, Abia State.

Method

Descriptive survey research design was used for this study. The population for the study comprised of 101,031 female students (JSS 1-2 & SS 1-2) in all the 37 Government owned secondary schools in Aba Education zone. Sample of 540 female in-school adolescents within Aba Education Zone were used for the study. A multistage sampling technique that comprised stratified random sampling and convenient sampling were used for the study. The instrument used for data collection was researchers' made questionnaire, the questions was divided into two sections. A and B. section, A deals with demographic data of respondents while section B elicited information from

respondents on determinants of menstrual hygiene behaviour. The instrument was validated by three experts in the field of Health Education. The reliability of the instrument was carried out using Cronbach Alpha method with overall reliability index of 0.84 obtained. The completed copies of the questionnaire were collated, coded, entered and analyzed using t-test statistic at 0.05 alpha level.

Result

Hypothesis 1: There is no significant difference in the mean ratings of urban and rural female in-school adolescents on the economic determinants of menstrual hygiene behavior in Aba Education zone of Abia State.

Table 1: t-test Statistics on the Mean Ratings of Urban and Rural Female in-School Adolescents on the Economic Determinants of Menstrual Hygiene Behavior in Aba Education Zone of Abia State.

Variables	n	$\bar{x}$	SD	t-value	Df	Sig. (2tailed)	Dec
Urban	363	2.68	1.09	0.290	538	0.201	Not
Rural	177	2.64	1.07				Significant

Table 1 shows that the t-value for all the items at 0.05 level of significance and 538 degree of freedom is 0.290 with a significant value of 0.201. Since the significance value of 0.201 is more than the 0.05 level of significance, the null hypothesis is statistically not significant and thus, not rejected. Therefore there is no significant difference in the mean ratings of urban and rural female in-school adolescents on the economic determinants of menstrual hygiene behavior in Aba Education zone of Abia State. This implies that the location of the respondents has no significant influence on their opinion regarding the economic determinants of menstrual hygiene behavior in Aba Education zone of Abia State.

Hypothesis 2: There is no significant difference in the mean ratings of junior and senior female secondary school students on the economic determinants of menstrual hygiene behavior of in-school female adolescents in Aba Education zone of Abia State.

Table 2: t-test Statistics on the Mean Ratings of Junior and Senior Female Secondary School Students on the Economic Determinants of Menstrual Hygiene Behavior of In-School Female Adolescents in Aba Education Zone of Abia State.

Variables	N	$\bar{x}$	SD	t-value	Df	Sig. (2tailed)	Decision
Junior	337	2.70	1.08	-1.470	538	0.146	NS
Senior	203	2.61	1.07				

Table 3 shows that the t-value for all the items at 0.05 level of significance and 538 degree of freedom is -1.470 with a significant value of 0.146. Since the significance value of 0.146 is more than the 0.05 level of significance, the null hypothesis is not rejected. Thus, there is no significant difference in the mean ratings of junior and senior female secondary school students on the economic determinants of menstrual hygiene behavior of in-school female adolescents in Aba Education zone

of Abia State. This implies that the educational level of the respondents has no significant influence on their opinion regarding the economic determinants of menstrual hygiene behavior in Aba Education zone of Abia State.

Hypothesis 3: There is no significant difference in the mean ratings of urban and rural female in-school adolescents on the cultural determinants of menstrual hygiene behavior in Aba Education zone of Abia State.

Table 3: t-test Statistics on the Mean Rating of Urban and Rural Female In-School Adolescents on the Cultural Determinants of Menstrual Hygiene Behavior in Aba Education Zone of Abia State.

Variables	N	$\bar{x}$	SD	t-value	Df	Sig. (2tailed)	Decision
Urban	363	2.90	1.00	0.969	538	0.336	NS
Rural	177	2.65	1.01				

Table 3 shows that the t-value for all the items at 0.05 level of significance and 538 degree of freedom is 0.969 with a significant value of 0.336. Since the significance value of 0.336 is more than the 0.05 level of significance, the null hypothesis is statistically not significant and thus not rejected. Hence, there is no significant difference in the mean ratings of urban and rural female in-school adolescents on the cultural determinants of menstrual hygiene behavior in Aba Education zone of Abia State. Here, the location of the respondents is seen to have no significant influence on their opinions.

Hypothesis 4: There is no significant difference in the mean ratings of junior and senior female secondary school students on the cultural determinants of menstrual hygiene behavior of in-school female adolescents in Aba Education zone of Abia State.

Table 4: t-test Statistics on the Mean Ratings of Junior and Senior Female Secondary School Students on the Cultural Determinants of Menstrual Hygiene Behavior of In-School Female Adolescents in Aba Education Zone of Abia State.

Variables	N	$\bar{x}$	SD	t-value	Df	Sig. (2tailed)	Decision
Junior	337	2.81	0.96	-0.404	538	0.687	NS
Senior	203	2.71	1.01				

Table 4 shows that the t-value for all the items at 0.05 level of significance and 538 degree of freedom is -0.404 with a significant value of 0.687. Since the significance value of 0.687 is more than the 0.05 level of significance, the null hypothesis is statistically not significant and hence not rejected. Hence, there is no significant difference in the mean ratings of junior and senior female in-school adolescents on the cultural determinants of menstrual hygiene behavior in Aba Education zone of Abia State. However, the Table depicts that the educational level of the respondents has no significant influence on their opinion regarding the cultural determinants of menstrual hygiene behavior in Aba Education zone of Abia State.

Discussion of Findings

Hypothesis one was not rejected implying that there is no significant difference in the

mean ratings of urban and rural female in-school adolescents on the economic determinants of menstrual hygiene behavior in Aba Education zone of Abia State implies that location of in-school adolescents does not affect their menstrual hygiene behaviour. This could be as a result of present awareness on menstrual hygiene behaviour presently in the state. The above confirms with Azor, (2014) verdict that concerning the comparison in the management of menstruation hygiene behaviour between rural and urban secondary school girls, that there is no significant correlation in management of menstruation between adolescent school girls in urban and rural areas. Although the result of the study show that urban girls have better management of menstruation especially on personal hygiene than the rural girls, but it was not statistically significant from the hypothesis test. The author further assumed that the reason could be because of the emphasis on personal hygiene during menses in the content of the information given to both urban and rural girls. However, the result is not in keeping with Thakre, Thakre, Reddy, Rahti, Pathak, and Ughade, (2011) revealed urban girls manage their menstruation better than their rural counterparts. This could also be as a result of more awareness creation on menstrual hygiene in the urban areas.

Regarding the Mean Ratings of junior and senior female secondary school students on the economic determinants of menstrual hygiene behavior of in-school female adolescents in Aba Education zone of Abia State (hypothesis 2), the results shows that there is no significant difference in the mean ratings of junior and senior female secondary school students on the economic determinants of menstrual hygiene behavior of in-school female adolescents. Differing, Akpenpuun, Rumun, and Msuega, (2014), found out that less educated girls have faulty knowledge on reproduction, menstruation and menstrual hygiene and attributed the cause to maybe the girls having uneducated mothers and economic constraint. The disagreement could be as a result of massive awareness program on menstrual hygiene practice given to both junior and senior secondary in-school females by the school management and other non government organization.

Furthermore, hypothesis 3 on the mean rating of urban and rural female in-school adolescents on the cultural determinants of menstrual hygiene behavior in Aba Education zone of Abia State showed that there is no significant difference in the mean ratings of urban and rural female in-school adolescents on the cultural determinants of menstrual hygiene behavior. This study finding fall in line with Thakre, Thakre, Reddy, Rahti, Pathak, and Ughade, (2011), found more than half of the respondents (67.7%) not restricted during menstruation, in contrast to the works of where girls were restrained from religious and cooking activities during menstruation. This is a good sign towards evolving a more equal society in the study area. The study might have similar submission because the society is beginning to accord girls and women some rights and respect which was not attributed to them in the past

Similarly, hypothesis 4 revealed that there is no significant difference in the mean ratings of junior and senior female in-school adolescents on the cultural determinants of menstrual hygiene behavior in Aba Education zone of Abia State. The reason could be as a result of emphasis on discussions on menstrual hygiene behaviour by teachers in the school and also by parents at home. Myths and misconception regarding menstruation is gradually phasing out. The result of the study agrees with Azor, (2014) which observed that the situation about menstrual hygiene has greatly changed from what obtains in old

African societies, where so many cultural beliefs/taboo abound, e.g. restriction rites and seclusion. Though this is still practiced in some African societies, but in Igbo land socialization and education (especially women education) have changed things a lot.

Conclusion

Based on the findings of this study, the following conclusions were drawn that household income of parents, educational level of parents, type of feminine hygiene product used, privacy and lack of toilets for girls in school, lack of proper disposal facility in school for used menstrual materials and inadequate water supply facility in schools used for washing and changing pads/cloths hygienically are major constraint to menstrual hygiene behaviour of in-school adolescents in Aba education zone. In addition, some cultural belief and practices still hamper menstrual hygiene behaviour both in school and at home.

Recommendations

The following recommendations were made

1. Awareness of menstrual hygiene behaviours should commence at upper primary school level in order to sensitize the females on what to expect during adolescent and adult years.
2. Government should subsidize or totally remove value added taxes on pads. They should partner with feminine hygiene product companies.
3. There is need for free sanitary pads provision for secondary school girls in order to support good menstrual hygiene behaviour.

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