

## ASSESSMENT OF THE KNOWLEDGE AND ATTITUDE OF FEMALE STUDENTS ABOUT MENARCHE AND MENSTRUAL CYCLE

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### Abstract

*This study assessed the knowledge and attitude of adolescent girls about menarche and menstrual cycle in Secondary schools in Ekiti State. The study specifically assessed the menstrual hygiene practice among female adolescents. It also identified the challenges faced by adolescent girls during menarche and examined the attitude of adolescent girls towards menarche and menstrual hygiene. The descriptive research design of the survey type was used in this study. The population for the study consisted of all the Secondary School Female Students in Ado Local Government Area of Ekiti State. The sample consisted of 100 female students selected from five (5) public secondary schools using simple random sampling technique. The instrument used for this study is self-structured questionnaire. The reliability of the instrument was ensured by administering copies of the instrument on a group of 20 students who were not among the sample for this study on two occasions with an interval two weeks, their scores were later correlated and a reliability coefficient of 0.68 was obtained. Analyses of the results were presented under descriptive statistics. Data were analyzed by the use of frequency counts and simple percentages. The findings of this study showed that female adolescents are knowledgeable about menarche and menstrual cycle. Majority of the female students observed menstrual hygiene practices during menstruation and higher percentages of the female students were not happy with their self during menarche period. It was concluded that a large number female adolescents are knowledgeable about menarche and menstrual cycle. Based on the findings of this study, it was therefore recommended that; there is need for parent (mother) to educate their female child on the necessities in coping with menarche challenges. There should be a form of sensitization for the female students on the need to overcome menarche stress and anxiety and Female child should develop positive view of the menarche and menstrual cycle rather than thinking of the challenges facing during menstruation*

**Key words:** Assessment, Menarche, Menstruation, Hygiene, Knowledge

### Introduction

In all the developmental stages associated with the adolescent years, menarche appears to be the most noteworthy. The onset of the first menstrual period is a qualitative event of a major functional state. Menarche is the first menstruation of a human female which

occurs between the ages of nine to fourteen years, it is hormonally controlled. Menarche according to Tiwari (2009) is recognized as one of the most vivid and emotion laden event for the human female regardless of the specific cultural practices of the society.

Adolescence is a transition period from childhood to adulthood during which pubertal development and sexual maturation take place. During puberty, hormonal, psychological, cognitive and physical changes occurs simultaneously and interactively making physiological development a change for adolescent to face with emotional, social and behavioural dimensions. A feature of sexual maturation in the human race is the four to five years physiological variation of pubertal age observed in normal individuals living in the conditions (Tanner, 2008).

Early adolescence is time of physical, intellectual, emotional and social development during which young people confront the questions about puberty. Here, physical maturation particularly sexual maturation has significant effect on self-concept and social relationship during this period. This period is influenced by peer group, parent and teachers. When a healthy child is somewhere between nine and sixteen years, she enters puberty, that is onset of sexual maturation. It is the period under the influence of hormones when the child experiences physical and sexual changes. The onset of menstruation is one of the most visible signs that a girl is entering puberty (Chang, 2009).

The landmarks of the pubertal events in girls are the onset of puberty, peak height velocity (PHV) and menarche. The

onset of puberty is marked by the development of breast tissue, while PHV is the highest velocity that is observed during the pubertal growth spurt. Menarche is a rather late event in puberty and usually occurs 6 months after PHV is achieved. The age that menarche occurs varies and is dependent on the interaction between genetic and environmental factor.

In the 19<sup>th</sup> century factors that were thought to exert an influence on the physical maturation of girls were climate (particularly the mean annual temperature), ethnic origin, social status, urban or rural residence, physical activity, education, sexual stimulation, housing, inheritance and health status. Studies carried out in the 20th century such as None-genetic determinants of age at menarche and effects of lower age at menarche have been reported in literature (Giles, Glonek & Moore, 2010; Anna & Volodymyr, 2014) affects survival in older Australian women by Giles L.C, Glonek, G.F.V and Moore V.M, (2010). The authors further listed other factors associated with the age at menarche as season and month at birth, physique, position at the sib ship, family income, occupation and education of parents and family, size. It is considered that during the 20th century the dramatic improvement of socioeconomic conditions and general health of the populations in the

industrialized countries resulted in an earlier onset of puberty in children.

The most reliable marker of the positive secular changes in pubertal development was the fall of the age at menarche. It has been estimated by Krsmanovic (2009) that during most of the 20th century age at menarche has been falling by about 3 months per decade. Although there were reports from industrialized countries that it has been leveling off or that it shows an upward trend in whatever the factors that influence pubertal maturation and age at menarche are, they interrelate and thus the onset of menarche cannot be attributed to a single factor (Rometo, 2007).

Maturing girls seek advice and support from their parents as well as someone who is closer to them. As menarche is a powerful signifier of entry into sexual and reproductive maturity, it should be dealt with in different perspectives. For most girls poverty is a negative, frightening experience or at best, a non-event. Among young girls, menstruation is seen as a nuisance or is something to fear or ashamed of. Clinical studies demonstrated that both pre and post menarche girls regard menarche as a hygiene crisis rather than as a maturation event (Tiwari, 2009).

The most striking event in the whole process of female puberty is undoubtedly the onset of menstruation, that is,

menarche. It is a different point marking the major difference between man and woman. It involves fear, anxiety, and feminine hood contentment which are packed with untold emotional attachment which thereafter creates discomfort and some anxiety when it is delayed. The feeling of fright and embarrassment that girls experience at menarche need to be acknowledge and the negative aspect of the menstrual experience need to be discussed in order to provide view of menstruation.

Menstruation does not need to put the individual in a bad mood and it does not also mean being sick or unclean. Menstruation according to Poureslami and Osati-Ashanti (2010) is a sign that series of physiological and anatomical process of puberty and the body is working well and awareness of these entire have an influence on the knowledge of female adolescent towards menarche. The word “menarche” comes from the Greek word “Men” means month and “Arche” mean beginning. It is the term used to refer to the first menstrual period. The first sign that menstruation has begun is governed by a complex set of biological processes, genetic information and psychological factors. In the human female, the usual age for menarche is between ages eleven and twelve. Others studies, however reports figure between twelve and thirteen years (Martini, 2008).

Menarche is the first menstruation in girls. It is generally used as a major sign of sexual maturity. According to Kralj-Cercek, (2008), several intrinsic factors such as socio-economic level, psychological responses, nutrition and environmental factors such as (heredity, race, geographical location, exercise, hormones and climate) influence menarche. Anthropology is rich with descriptions of coming of age ceremonies for girls. The attitudes of societies towards menarche vary from delight and pride to fear and shame. Positive labels signify that the girls are an adult capable of contributing to the ongoing society. Menstrual pollution is the term anthropology use to describe fears of menstrual blood and its dangerous powers. Since the time of Pinny (23-79 century) myths and taboos have surrounded menarche. Societies in Brazil, British, Columbia, India, Ceylon and North America built menstrual huts to segregate menstruating women (Martini, 2008).

Menstruation is defined by Aniebue and Nwankwo (2009) as a cyclical shedding of the inner lining of the uterus, the endometrium under the control of hormones of the hypothalamic-pituitary axis. Geoffrey (2008) stated that each menstrual period lasts for an average of four to five days but the duration of the flow of the amount of blood lost vary considerably in different women. It is impossible to

define a standard of normal blood loss, while the average loss over the whole period may be forty (40mls) ranging from 20-80mls.

The menstrual flow consists of partially haemolysed blood, mucus and cellular debris. It is usually scanty and viscid at first, later becoming bright red and finally brown towards the end, small clot and fragment of endometrium may be seen but large clot only passed when the bleeding is excessive. During menstruation, uterine contraction causes slight dilatation of cervical canal and expels the menstrual product. The contraction also helps to control loss of blood. Menstruation especially in younger and multiparous women is frequently accompanied by painful uterine contractions. Pain during menstruation is known as dysmenorrhea (Geoffrey, 2008).

According to Diane and Margaret (2010), the menstrual or endometrial cycle is the name given to the physiological changes that occur in the uterus, and which are essential to receive the fertilized oocyte. It is a series of events, occurring regularly in females in every twenty-six to thirty days throughout the period of about thirty-six years. The cycle consists of a series of changes taking place concurrently in the ovaries and uterine walls, stimulated by changes in blood concentrations of hormones. Hormones secreted in the cycle

are regulated by negative feedback mechanisms (Waugh & Grant, 2010).

Puberty has been conceptualized by Van de Graff (2008) as the stage of early adolescences when the secondary sex characteristics become exposed and the sexual organs become functional. Pubescence (psycho-besen) refers to the continuum of physical changes during puberty, particularly in regard to body hair. Although puberty is under the hormonal control, a complex interaction of other factors including nutrition and socio-economic force has a decisive influence on the onset and duration of puberty. Thus, for both sex there is a wide individual variation. It is worthy of note that this stage is accompanied with series of stress, (mensuration stress). This is a symptom complex of irritability, depression, edema and breast tenderness preceding menstruation. It affects more than half of a woman during their reproductive years. The actual case is unknown, but is thought to involve imbalances of estrogen and progesterone. Increased aldosterone level cause salt and water retention and edema. Neurotransmitters such as monoamine oxidase and serotonin affect emotions and probably play a role in premenstrual syndrome. Manifestations of premenstrual syndrome generally occur seven (7) to ten (10) days before the onset of menstrual flow

are relieved when the menstrual flow begins (Van de Graff, 2008).

Hygiene related practices of women during menstruation are of considerable importance especially for young girls who do not have experience. Especially during the onset of menarche, menstrual flow could occur accidentally while they are still in class or out of home, water, privacy in school to change product and where to dispose used material should be made available. Menstruation and menstrual hygiene are issues which every girl and woman will have to contend with in her life time, coping with menstruation can be an enormous task (Richard, 2008).

Keeping clean and tidy (hygiene) during menstrual period is a problem to many young girls especially where information on menstruation and reproductive health are poorly discussed. Issues relating to the practical management of menstrual hygiene are very important because it has great implication in terms of vulnerability to infections (Anuradha, 2010). The absorbent materials used as well as their mode of usage contribute to the poor status of the users. It is important to maintain high standard of menstrual hygiene during menstruation as any bacteria on hand by changing pads can be transferred into the vagina and cause infection and any bacteria from the vagina following changing of pads can be

transferred to other items. as reported by Johnson (2010), a lot of girls feel uncomfortable during menses and they wish to bath often, as washing disturbs natural flora of the body and increase the risk of infection.

Up until now, poor menstrual hygiene in developing countries has been an insufficiently acknowledged problem. In several cultures, there are (cultural and religious) taboos concerning blood, menstruating girls and menstrual hygiene. Population of the adolescents is on the increase as it is at the risk of reproductive health problems, unwanted pregnancy, infection, death from abortion (done by unqualified practitioners) and sexually transmitted diseases. Based on the challenges associated with the period and development stage the need for provision of adolescent friendly reproductive health services emerges, though not without oppositions, health ranging from religious reactions, cultural values, health workers attitude and even some of the government policies.

These challenges stem from the fact that sexuality education is not been emphasized in the educational institutions and most parents deprive female child the needed information about their sexuality, developmental progression into adulthood, menarche and menstruation. Mostly, parents and teachers do avoid discussing

the aspect in details and are often based on their responses to questions asked by adolescent. It is against this background that this study therefore seeks to assess the knowledge and challenges facing female students during menarche and menstruation.

### **Purpose of the Study**

The purpose of this study is to assess the knowledge and attitude of adolescent girls about menarche and menstrual cycle. Specifically, the study assessed the menstrual hygiene practice among female students and identified the challenges faced by female students during menarche.

### **Research Questions**

The following research questions were raised in the study

1. Are the female adolescents knowledgeable about menarche and menstrual cycle?
2. What are the current menstrual hygiene practices among female adolescent?
3. What are the challenges facing female students during menarche period?

### **Methodology**

This study employed descriptive research design of the survey type. The population for the study consisted of all female Secondary School Students as

obtained from Planning, Research and Statistics Department, Ekiti State Ministry of Education, Science and Technology, Ado Ekiti during 2019/2020 academic session. A total of 100 female students were selected through simple random sampling technique as sample for the study. The instrument used in collecting data for this study was a self-constructed and validated questionnaire titled; Questionnaire on Menarche and Mensuration (QOMM) that contained 30 items. A test-retest method of reliability was used; the instrument was

administered on 20 female students who were not among the sample for the study on two occasions with an interval of two weeks. The Pearson Product Moment Correlation yielded a coefficient ( $r$ ) 0.68. The data generated for the study were analyzed using simple percentages and frequency counts.

## Results

**Research Question 1:** Are the female adolescents knowledgeable about menarche and menstrual cycle?

**Table 1: Descriptive Analysis of adolescents' knowledge of menarche and menstrual cycle**

S/N	Items	Yes		No		Total
		F	%	F	%	
1	Have you heard about menarche	46	46.00	54	54.00	100
2	Women stop menstruation as they grow old	69	69.00	31	31.00	100
3	Menstruation is one of the sign that you have reached puberty	78	78.00	22	22.00	100
4	Some changes occur in female during the time of their menstruation	62	62.00	38	38.00	100
5	Did your parents ever talk to you about menstruation before you began menstruation	29	29.00	71	71.00	100

Table 1 shows that 78 (78.00%) of the respondents agreed that menstruation is one of the signs that a girl has reached puberty as against 22 (22.00%) of the respondents who have countered opinion about the item. 69 (69.00%) of the respondents agreed that women stop menstruation as they grow old while 31 (31.00%) of the respondents disagreed with

the item. Some changes occur in female during the time of their menstruation, this is the belief of 62 (62.00%) of the respondents on the questionnaire as against 38 (38.00%) of the respondents who objected the item. it can easily be deduced that female adolescents are knowledgeable about menarche and menstrual cycle.



**Research Question 2:** What are the current menstrual hygiene practices among female adolescent?

**Table 2: Descriptive Analysis of the current menstrual hygiene practices among female adolescent**

S/N	Items	Yes		No		Total
		F	%	F	%	
1	I bath frequently during menstrual period	74	74.00	26	26.00	<b>100</b>
2	I change my sanitary pad frequently per day	65	65.00	35	35.00	<b>100</b>
3	I feel irritated when menstruating	42	42.00	58	58.00	<b>100</b>
4	I use medicated soap during my menstrual period	32	32.00	68	68.00	<b>100</b>

Table 2 shows that 74% of the female students bath frequently during menstrual period as against 26% of them who hardly have their bath regularly during menstrual period. 65% of the female students change my sanitary pad frequently per day as against 35% who care not. From

the above, it can be said that majority of the female students observed menstrual hygiene practices during menstruation.

**Research Question 3:** What are the challenges facing female students during menarche period?

**Table 3: Descriptive Analysis of the challenges facing female students during menarche period**

S/N	Items	Yes		No		Total
		F	%	F	%	
1	I couldn't relate with my friends during my menarche period	44	44.00	56	56.00	<b>100</b>
2	I was not happy with myself during my menarche period	65	65.00	35	35.00	<b>100</b>
3	I feel irritated when menstruating	40	40.00	60	60.00	<b>100</b>

Table 3 shows that 44% of the female students find it difficult relating with their friends during menarche period as against 56% who move freely with their peers. 40% of the female students feel

irritated when menstruating while 60% of them are not bothered with their present state of body chemistry. However, 65% of the female students were not happy with



their self during menarche period as against 35% of them who are not bothered.

### Discussion

The findings of this study have been discussed with reference to the objectives. Majority of the female students have knowledge about menarche and menstrual hygiene in all aspects. This indicates the need for imparting necessary education and information on the anatomy & physiology, interval and duration, meaning and fact related to menarche as well as education to the mother regarding menarche and menstrual hygiene so that she will contribute to help the girl child to handle the bodily changes during adolescent period in adaptive and participative manner. This is in agreement with the findings of James (1997) who found out that there was no significant association between the knowledge of adolescent girls regarding menstrual hygiene and mothers' education.

Major percentage of the female student observed menstrual hygiene practices during menstruation. This finding negates the finding conducted by Drakshyanidevi (1994) on "menstrual hygiene among rural adolescent girls" who submitted that the mothers of these girls did not have the right knowledge and the same thing was transferred to their off springs. Before bringing any change in menstrual

practices they should be educated about the facts of menstruation and its physiological implication's. The girls should be educated about the significance of menstruation and development of secondary sexual characteristics, selection of a sanitary menstrual absorbent and its proper disposal.

Higher percentages of the female students were not happy with their self during menarche period as a result of the stress they pass through. This could be evidenced in the time available in talking with their parents. This finding is in line with the findings conducted by Narayan (2001) on "menstrual preparation for adolescent girls living apart from their mothers" menarche is a significant yet anxiety-producing event, however, preparation for menarche combats this anxiety. When adolescent girls reach menarche, they often seek information about menstruation from their mothers. This study shows the importance of mothers during this period.

### Conclusion

Arising from the findings in this study, based on the frameworks of the study, data analysis and interpretation of results. It can easily be deduced that a large number female adolescents are knowledgeable about menarche and menstrual cycle and larger percentage of

female students were not happy with their self during menarche period.

cycle rather than thinking of the challenges facing during menstruation

## Recommendations

With regard to the findings and conclusion from this study, the following recommendations were made:

1. There is need for parent (mother) to educate their female child on the necessities in coping with menarche challenges
2. There should be a form of sensitization for the female students on the need to overcome menarche stress and anxiety
3. Female child should develop positive view of the menarche and menstrual

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