EXPERIENCES OF MENARCHE AMONG SECONDARY SCHOOL GIRLS IN IBADAN NORTH LOCAL GOVERNMENT AREA, NIGERIA

BY

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ABSTRACT

Menarche (onset of menstruation) is a normal developmental milestone among adolescent girls. The experience could be characterized by varying physical problems and emotional reactions. There is dearth of information in respect of how menarche is experienced among in-school adolescents in Nigeria. This study was therefore designed to determine the physical complaints and feelings experienced by adolescent girls during menarche in public secondary schools in Ibadan North Local Government Area, Oyo State, Nigeria.

The study was a descriptive cross- sectional survey. A two-stage random sampling technique was used to select 400 girls from three out of twenty-four schools for study in the Local Government Area. A validated semi-structured questionnaire was used for data collection. The data were analyzed using descriptive and Chi square statistics.

The mean age of the participants was 13.9±2.0 years. Sixty percent of the participants lived with both parents while 10.3% lived with their mothers. Out of the 400 respondents 77.5% had started menstruating while 22.6% had not. Their mean age at menarche was 12.3 ±1.4 years. Ninety- five percent of all respondents had heard about menstruation before. The sources of information about menstruation were mothers (46.8%), teachers (32.8%), elder sisters (13.2%), friends (5.8%), TV/Radio (0.5%), Books/Pamphlets and fathers (0.3%). What participants heard about menstruation prior to experiencing it included the following: pregnancy could occur following the onset of menstruation if one indulges in sex (37.1%); menstruation is an indication that one had become a woman (32.6%) or one had grown up (19.7%); it is an experience that one should always keep secret (9.4%) and menstruation is a normal development in women (1.3%). A higher proportion of participants in the Senior Secondary School (37.0%) had heard about menstruation before experiencing it than those in Junior Secondary School (28.8%) ($p < 0.05$). The emotional feelings experienced by the respondents during menarche included surprise (33.5%), fear (22.5%) and happiness (14.5%). There was no significant difference in the proportion of participants within the 9-12 years (57.1%) and 13-17 years

(42.9%) age groups that had unpleasant experiences at menarche. The physical complaints experienced by the participants during menarche included abdominal pains (53.5%), headache (9.8%) and cramps (7.7%). These pains were overcome by taking pain relieving drugs (54.0%), indoor exercises (8.8%), drinking hot tea without sugar (4.0%).

Secondary school girls in Ibadan North Local Government Area experienced some negative feelings and problems during onset of menstruation. The capacity of mothers and teachers, who are common sources of information about menarche and menstruation, should be enhanced through appropriate educational interventions to be providing social support to adolescent girls.

Keywords: Secondary school girls, Menarche, Menstruation, Ibadan North Local Government Area.

Word count: 423

DEDICATION

This work is dedicated to Almighty God, the author and finisher of our faith, who saw me through this programme. He is so faithful and just, abiding with me all through the way. May His name be blessed. Also to my sweetheart Prince Chuks Madu for his understanding throughout the study period.

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CERTIFICATION

I certify that this work was carried out by Ezioma Patience ONU in the Department of Health Promotion and Education, Faculty of Public Health, College of Medicine, University of Ibadan, Nigeria.

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LIST OF ABBREVIATIONS

AIDS: Acquired Immune Deficiency Syndrome

CDC: Center for Disease Control and Prevention

FSH: Follicle Stimulating Hormone

JSS: Junior Secondary School

LH: Luteinizing Hormone

LGA: Local Government Area

NPC: National Population Commission

PTA: Parent-Teacher Association

SLT: Social Learning Theory

SSS: Senior Secondary School

SPSS: Statistical Package for Social Sciences

STI: Sexually Transmitted Infections

UN: United Nations

USA: United States of America

WHO: World Health Organization

OPERATIONAL DEFINITION OF TERMS

Menarche: Onset of first Menstruation or the experience of first menstruation in any girl

Menstruation: This simply means times when a girl or woman bleeds naturally from the vagina.

Puberty: The state of physical development when it is first possible to beget or bear children.

Adolescence: The time of life between puberty and maturity.

Adulthood: The state of being adult

Cognitive: The process of knowing or perceiving; perception

Ambivalence: Simultaneous conflicting feelings toward a person or thing, as love and hate

Nobility: Having or showing high moral qualities or ideas; characterized by or characteristic of greatness of character.

Intercourse: The sexual joining of two individuals

Pandemic: Prevalent over a whole area

Accentuate: To emphasize; heighten the effect of something

Compassion: With the urge to help; pity; deep sympathy

Down-trodden: To trampled on or down

Mood-Swing: An unstable mind or feelings

Contraception: Prevention of the fertilization of the human ovum often called birth control

Exemplified: Suggests that which is presented as a sample, or that which sets a precedent

for imitation, whether good or bad

Ovulation: The production or discharge of an egg cell from an ovary

Ovum: A reproductive cell produced by a female

Promiscuity: Indiscriminate sexual activity

Gynecology: The study of the physiological functions and diseases of women

Anthropology: The study of the origin and customs of mankind

Femininity: The quality or state of being feminine; womanhood

Debilitating: To weaken, not strong

Perception: The ability to show insight and understanding; the awareness of objects or other data through the medium of the senses.

Tampons: Plugs of absorbent material inserted into the vagina especially to absorb menstrual blood

Irritability: The act of being easily annoyed, easily hot tempered

Antipathy: Strong dislike or opposition towards someone or something

Fatalism: The belief that there is nothing you can do to prevent events from happening

CHAPTER ONE

INTRODUCTION

1.0: Background to the study

Menarche is described as the first menstrual flow of an adolescent girl (Bech, 2005). It is the onset of first menstruation in an adolescent girl. Over the past century and a half the average age at menarche has declined in modern western countries from 17 years to 13 years, the normal range being 10 to 16 years (Elder, 1998).

Puberty has been defined from a medical point of view as the period of physical growth leading to the attainment of reproductive capacity (Brooks, 1984). Before the onset of menarche there is pubertal development which is characterized by rapid growth, large increase in hormone levels, and appearance of secondary sexual characteristics. According to Adegoke (2001), it is a time of expanding horizons, self-discovery and emerging independence, and of metamorphosis from childhood to adulthood. In most societies of the world, the onset of menarche is closely synchronized with the biological changes of puberty. Entry into menarche is marked by the physical changes of puberty, social environment, and concomitant individual changes in cognitive and socio-emotional functioning.

In these often tumultuous years, a young person experiences much growth and joy, as well as doubt and confusion. Relationships with peers and family take on a new meaning. Adegoke (2002) states that these changes create feelings of ambivalence and vagueness as to what the future holds as they embark on a prolonged search for the pathways to promoting adulthood. This period represents a crucial turning-point in

life's trajectory and therefore creates an excellent opportunity for interventions to prevent destructive behaviors and promote positive and healthy behaviors.

According to Tortumluoglu et al; (2005), menarche, described as the onset of menstruation, is accepted as a symptom of the transition to reproductive period of girls which is commonly seen at the age of 12 -13 years old. The age of menarche is associated with the genetic structure of the girl, the geographic region where she lives, the socio-cultural environment as well as nutrition.

Mothers and other adult women were the primary and most regular source of information about the biological realities of womanhood. Adult women also served as accessible role models for young girls in the society where there was little discontinuity between the experience of mothers and their daughters.

By the mid- nineteenth century, evidence began to appear that American mothers were not adequately preparing their daughters for menarche. A physician, Edward John Tilt, found that twenty- five percent out of one thousand girls, was totally unprepared for their first menstruation, many however said they were frightened and thought that they were wounded (Edward, 1907). The report was important because it signals a new concern about preparedness that was echoed by many individuals throughout the nineteenth and early twentieth centuries. This new concern probably was based on changing expectations as well as actual experience; for at least one hundred years after Edward, all kinds of observers- physicians, educators, and women themselves, lamented the fact that so many girls did not know what was happening to them when they started to menstruate because mothers failed to provide adequate information (Pillemer et al, 1987).

According to Rahman (1997) in a study conducted where 36% of the women had significant knowledge about menarche while 32% of them had wrong knowledge. Rahman also found that girls who had received knowledge oriented to the onset of menstruation before experiencing it perceived this event to be normal. The girls without such knowledge or who received wrong information about menstruation

reflected the same wrong information to the next generations. In a similar study by Mimoun, et al. (2001) it was detected that 14.6% of female students received knowledge about emergence of menstruation while 85.4% of them didn't receive knowledge.

In some cultures people conceive menarche as a time of nobility and a cause for celebrations, while in other cultures, it is accepted as an event that brings shame and shock (Beasung, et al., 2000).In the studies carried out on the woman traditional culture, it was found out that it may even result in experiences of negative feelings such as fear, worry, starting point of personal question marks for girls (Raboch and Raboch, 1996;Le Buler et al; 2001, and Espinoza-Hernandez, 2001).

The reaction which will be shown will vary according to the level of preparedness. While a group of girls perceived menarche as being grown up or mature, and become happy; another group felt themselves to be contaminated or bad, and the other group felt ashamed, and had the confused feelings that menstruation particularly in early age will cause some fright. Some young girls thought that they lose their hymen at menarche and worry about this (Yorukoglu 1998). In their study, Erdogan, et al (1991) found out that 44.3% of the students gave positive reaction and 46.22% of them gave negative reaction such as fear, worry, shame, crying and confusion. In another study carried out about the menarche Yorulmaz (2000) reported that the greatest reaction shown was fear.

Other studies have attempted to examine the impact of puberty on teenagers in Africa; such studies examined initial pubertal problems experienced by adolescents in Nigeria (Adegoke, 1992). His findings indicate that the menarcheal experience could be anxiety-provoking, and it could bring disappointment and depression to adolescents' girls from different socio-economic backgrounds.

The perception of the sexuality of the community a girl lives in and the knowledge she received, oriented to this situation before menarche affects her reactions against menarche (Rahman, 1997). It was also found out that 365 women had significant knowledge and 325 of them had wrong knowledge about menstruation when they

experienced their menarches. In this study knowledge oriented to the menarche before perception of this event is seen to be normal. The girls received inadequate and wrong knowledge about menstruation; they will reflect the same knowledge to the next generations.

According to Phinney et al, (1990) girls who started menarche earlier tend to begin dating and having sexual intercourse younger than their classmates, according to a national study of 1,800 girls between the ages of 15 and 19. Among white and Hispanic girls (but not African American girls), early menarche was associated with earlier marriage.

In a large-scale study between 1993 and 1995 among adolescent girls, Obisesan and Adejumo (1999) found that 5% of respondents admitted sexual intercourse between ages 6 and 10. The finding was not associated with gender or tribe (5.4% Yoruba, 4.9% Hausas, 3.7% Igbo, 3.3% other tribes). Also a finding by Oloko and Omoboye (1993) indicates that 3.6% of Yoruba adolescent school students had their first sexual intercourse around age 10. Oladipo, (2000) studied a randomly selected sample of 1, 527 male students in rural and urban high schools in Oyo State and found that the mean age at first sexual intercourse was 13.5 years among the 19.9% who had ever had sex. This indicates the urgent need for a health promotion and education intervention prior to menarche in order to prevent the high incidence of teenage unintended pregnancies and illegal abortions with its complications.

1.1: Statement of the problem

In the previous generations, the age of girl's first period was an average between 14-17 years, now the figure is between 11-13 years (Dashiff, 1988). The age at menarche for adolescent girls keeps declining as years goes by.

The explanations provided to girls as they are being prepared for menstruation have been documented to be inadequate or misdirected, and foster a subjective sense of being unprepared. For example, explanations fail to include important aspects of the

experience (e.g., what it feels like to menstruate); they fail to address the personal concerns of maturing girls (e.g., reactions to bodily changes), they were in a form that is difficult for girls to assimilate; or they were presented off-time-too early or late to be informative or reassuring (Koff and Rierdan, 1995). The adolescent girls' sisters passed on information about their experiences with menstruation and generally offered information which led to negative perception of pain, suffering and crankiness (Dickson and Wood, 1995).

Emergence of first menstruation in a teenage girl is supposed to be a day of celebration and happy moment for the teenager knowing that she is now entering into a full womanhood. She should have known all it takes to keep her hygienic and emotionally stable in order to avoid some societal lifestyles that are inimical to health. In Western Societies, girls are exposed to contradictory messages about menstruation: girls are congratulated on their entry into womanhood, while at the same time it is suggested that "it" should be kept secret (Beausung, 2000).

As a result, menarche is associated with a series of contradictory beliefs and feelings, and girls experience a mixture of positive and negative feelings at the same time such as; happiness and fear; excitement and anger; excitement and nervousness; anxiety and pleasure; acceptance and rejection; support and loneliness; self control and loss of controls (Morse et al, 1987 and Andrew, 1985).

However, it is filled with a sense of fear, depression, anxiety, shame, confusion, reduced self-esteem and unpreparedness. Unfortunately, the adolescent girls are fed grossly with inadequate information on their first menstruation mostly by their mothers. It has been observed that by the time they know all about their menstruation it must have been too late to adjust and they must have started living unhealthy lifestyles which may lead to unintended teenage pregnancies and subsequent illegal abortion with its complications.

Recent demographic and health survey data (2008) indicate that overall, 23% of Nigerian adolescents aged 15-19 years have begun childbearing. 18% have had a child

and that 5% are pregnant with their first child. Also, several reports, according to Megafu and Ozumba (1991), indicate that adolescents are more likely to resort to unsafe abortion and therefore likely to suffer abortion related morbidity and mortality.

1.2: Justification for the study

Young girls attain menarche unprepared, not because they do not know it will come but because they have no information about what it is and its importance in their reproductive life.

The study therefore has the potentials for yielding baseline information about the experiences of menarche among adolescent girls that would be useful in preparing them for that stage of their reproductive life.

1.3: Research questions

1. At what age do adolescent girls generally start menstruating?
2. What is the adolescent girl perception about menstruation?
3. From what source/s does the adolescent girl acquire her information on menstruation?
4. What are the adolescent girl experiences on emergence of first menstruation?

1.4: General objective

The main objective of this research is to find out the experiences of menarche among secondary school girls in Ibadan North local Government Area, Nigeria.

1.5: Specific objectives

The specific objectives were to:

1. Determine the age at which adolescent females generally menstruate
2. Explore the respondents perception about menarche
3. Identify the adolescent girl's source/s of information about menstruation
4. Investigate adolescent female's experiences on menarche

CHAPTER TWO

LITERATURE REVIEW

2.0: The Concept of Menarche

Menarche, according to the American Heritage Medical Dictionary (2009) is defined as the first menstrual function, especially the first menstrual period, usually during puberty. Also the Dictionary of Nursing (2008) defined menarche as the start of the menstrual periods and other physical and mental changes associated with puberty. The menarche occurs when the reproductive organs becomes functionally active and may take place at any time between 10- 19 years of age.

The word menarche is derived from the Greek word me –n, month, and arche-, beginning. It is the term used to refer to the first menstrual period (Martini, 1992). According to the Encarta World English Dictionary, Me-nar-che (mə náarkee) is derived from the word meno – Greek and arkhē – beginning. This first sign that menstruation has begun is govern by a complex set of biological processes, genetic information and psychosocial factors.

At about age eight, the pituitary gland secretes hormones until the ovaries begin their own productions of steroids (estrogen), the chemicals that are responsible for initiating puberty. These hormones known as the follicle stimulating hormone (FSH) and luteinizing hormone (LH) allow for an increase in the adipose tissue (fat), and inhibit the growth hormone. They stimulate the ovary to produce estrogen and progesterone, which results in breast development and pubic hair. At birth the human female has approximately 750,000 primordial follicles (eggs). By puberty, 400,000 remain. At or soon after menarche, the first mature egg is released. Menstruation will recur each month until menopause when few or no follicles remain (Guyton 1976).

Menarche is the first menstrual period, or first menstrual bleeding. From both social and medical perspectives it is often considered the central event of female puberty, as it signals the possibility of fertility. Menarche is the most commonly remembered milestone of puberty for most women. Menarche can occur within a wide range of ages, and the timing is influenced by both genetic and environmental factors. The average age of menarche in the United States is about 12 years and 8 months, which is few months earlier than fifty years ago.(Martini, 1992)

Menarche is another name for the beginning of menstruation. In the United States, the average age a girl starts menstruating is 12. However, this does not mean that all girls start at the same age. A girl can begin menstruating anytime between the ages of 8 and 16. Menstruation will not occur until all parts of a girl's reproductive system have matured and are working together. (Guyton, 1976)

Menarche usually occurs about two years after breasts develop (thelarche) and between 4 and 6 months after the growth of pubic and underarm hair. The age of menarche in most North American women is around 12 and 13, though first period can come anytime between 9 and 16, depending upon height, weight, and cultural background. Early menarche is occurring more and more – girls as young as 8 have been known to get their periods. This is referred to as premature menarche. Girls who haven't gotten their period by the age of 16 are described as experiencing primary amenorrhea. Sometimes external factors or complications may prevent your period from arriving when it should. (Guyton, 1976)

Menarche marks a young adolescent girl's advancement into womanhood. Menarche is a young woman's first menstrual period. Every woman has her own story of when and where this marker event occurred. In a healthy relationship, mothers and daughters both will anticipate a girl's menarche. It is generally the mother's role to prepare for her daughter's future menarche by educating her about her body. (Appel-Slingbaum, 2000)

Menarche often is acknowledged by family or community rituals, recognizing the adolescent's entrance into womanhood and sexual potential. Challenges of adolescence

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for a girl include incorporating the new status and potential into her self-concept and coping with reactions of family and peers. (Richards, 1956)

Menarche is celebrated in many cultures around the world as a time to recognize that a girl is moving into womanhood. It may be considered a rite of passage. Some traditions mark this event with gifts of red articles or a meal of special symbolic foods. When the Bemba (from Rhodesia) where studied, the *Chisungu* was held for each girl at menarche. The girl informed older women that she had started to bleed and they "brought her to the fire" to warm her. Seeds were cooked, and the girl was required to extract and eat them burning hot. Dances were performed to protect her against the magic dangers of her first intercourse. Pottery was painted and decorated at special symbols. Later the girl was isolated indoors and fed millet cooked in a new fire. (Richards 1956)

The Tiwi of Australia subjected menstruating girls to severe restrictions. The girl's mother and relatives chased her into the bush, where they built a menstrual hut for her. She could not dig up or touch food or eat without a stick. She could not touch or look at water. Someone had to give it to her. She could not scratch herself with her fingers. She could not make a fire or break any sticks. She had to whisper instead of talk. (Turner, 1968). Among certain Jewish people, the mother slaps her daughter's face with a congratulatory statement such as "today you are a woman," or "may the blood run back to your face." One source reported the slap as an admonition that the daughter should not disgrace the family by becoming pregnant before marriage. The tradition is less common than it was before the 1950s. Certain mothers who were slapped have decided not to carry on the ritual because of its pejorative connotation (Appel-Slingbaum 2000)

2.1: The Concept of Adolescence

According to World health Organization (WHO) adolescence covers the ages of 10 and 19 years (WHO, 1989) representing a transition between childhood and adulthood. One in Seventy five persons in the world is an adolescent (WHO, 1998). Over one and a half billion people are between the ages of 10-24, accounting for approximately 30% of the world's population. By the year 2025, the number of young people is projected

to reach nearly 2 billon (Population Reference Bureau, 1996). Twenty- one million persons or 25% of the Nigerian population are adolescents (UN, 1994).

Adolescence is a formation time for behavior patterns and activities relevant to health; they are often eager to learn and are open to positive influence that has long time impact (Ajuwon, 1995.). According to Crocket and Peterson (1993), there are three phases in adolescence; early adolescence (11-14), middle adolescence (14-17) and late adolescence (18-20). The three phases may occur at different chronological ages for different individuals but have distinct characteristics. Early adolescence is the transition from childhood to adolescence and is characterized primarily by puberty. Middle adolescence is the heart of adolescence, when there is a dominant peer orientation with all the stereotypical adolescence preoccupations; music, attire, appearances, language and behavior. Late adolescence includes the transition into adulthood and ends when the young person takes adult work roles, marry or become a parent.

Adolescence is traditionally a time of growth and development when young men and women experience great and rapid changes in their bodies and in their concerns, relationships and roles in the society (AIDS Action, 1994). It is also a period when young people seek to stretch beyond the protective shelter of the family and begin to create an independent vision of life. Physically, it includes the growth spurt, in which the size and shape of the body change markedly and accentuate the differences between boys and girls. These changes include increase in size of genital organs, growth of hair in the genital area, menstruation in girls, deep voice in boys, growth and development of breast in girls. It is also a time when the reproductive capacity is established. There are however great variations in the individual and the gender for the timing of these changes. In normal boys, for example, there is roughly a five-year range, from about 11-16, for them to reach puberty. In girls, on the other hand, puberty begins on the average, some two years earlier and extends over a slightly shorter period (WHO,1989).

2.2: Characteristics of Adolescence

Youth between the ages of 10-19 are characterized by their diversity as they move through the puberty growth cycle at varying times and rates. Yet as a group they

reflect important developmental characteristics that have major implications for those agencies that seek to serve them. Those developments can be grouped as follows as reported by Bishop, Smith and Downes, 1995.

1. Intellectual Development
2. Moral Development
3. Physical Development
4. Emotional/Psychological Development
5. Social Development

In the Area of **Intellectual Development**, young adolescents:

- Are in a transition period from concrete thinking to abstract thinking
- Are intensely curious and have a wide range of intellectual pursuits, few of which are sustained
- Prefer active over passive learning experiences
- Prefer interaction with peers during learning activities
- Respond positively to opportunities to participate in real life situations
- Are often preoccupied with self
- Have a strong need for approval and maybe easily discouraged
- Develop an increasingly better understanding of personal abilities
- Are inquisitive about adults, often challenges their authority and always observing them
- May show disinterest in conventional academic subjects but are intellectually curious about the world and themselves
- Are developing a capacity to understand higher levels of humor.

In the area of **Moral Development**, young adolescence:

- Are generally idealistic, desiring to make the world a better place and to become socially useful
- Are in transition from moral reasoning which focuses on "what's in it for me" to that which considers the feelings and rights of others

- Often show compassion for those who are downtrodden or suffering and have special concern for animals and environmental problems that our world faces
- Are moving from acceptance of adult moral judgments to development of their own personal values: nevertheless, they tend to embrace values consonant with those of their parents
- Rely on parents and significant adults for advice when facing major decisions
- Increasingly asses moral matters in shades of grey as opposed to viewing them in black and white terms characteristic of younger children
- At times are quick to see flaws in others but slow to acknowledge their own faults
- Owing to their lack of experience are often impatient with the pace of change, understanding the difficulties in making desired social changes
- Are capable of and value direct experience in participatory democracy
- Greatly need and are influenced by adult role models who will listen to
- them and affirm their moral consciousness and actions as being trustworthy role models
- Are increasingly aware of and concerned about inconsistencies between values exhibited by adults and the conditions they see in the society

In the area of **Physical development**, young adolescence:

- Experience rapid, irregular physical growth
- Undergo bodily changes that may cause awkward, uncoordinated movements
- Have varying maturity rates, with girls tending to mature one and one-half to two years earlier than boys.
- May be at a disadvantage because of varied rates of maturity that may require the understanding of caring adults.
- Experience restlessness and fatigue due to hormonal changes.

- Need daily physical activity because of increased energy.
- Develop sexual awareness that increases as secondary sex characteristics begin to appear.
- Are concerned with bodily changes that accompany sexual maturation and changes resulting in an increase in nose size, protruding ears, long arms, and awkward posture.
- Have preference for junk foods but need good nutrition.
- Often lack physical fitness, with poor levels of endurance, strength, and flexibility
- Are physical vulnerable because they may adopt poor health habits or engage in risky experimentation with drugs and sex.

In the area of **Emotional/Psychological Development,** young adolescent

- Experience mood swings often with peaks of intensity and unpredictability
- Need to release anger, often resulting in sudden, apparently meaningless outbursts of activity
- Seek to become increasingly independent, searching for adult identity and acceptance
- Are increasingly concerned about peer acceptance
- Tend to be self-conscious, lacking in self-esteem, and highly sensitive to personal criticism
- Exhibit intense concern about physical growth and maturity as profound physical changes occur
- Increasingly behave in ways associated with their sex as sex role identification
- Are concerned with many major societal issues as personal value systems develop
- Believe that problems, feelings, and experiences are unique to themselves

- Are psychological vulnerable, because at no other stage in development are they more likely to encounter so many differences between themselves

In the area of the **Social Development,** young adolescents:

- Have a strong need to belong to a group, with peer approval becoming more important as adult approval decreases in importance
- In their search for self, model behavior after older, esteemed students or non-parent adults
- May exhibit immature behavior because their social skills frequently lag behind their mental and physical maturity.
- Experiment with new slang and behaviors as they search for a social position within their group, often discarding these "new identities" at a later date
- Must adjust to the social acceptance of early maturing girls and the Atlantic successes of early maturing boys, especially if they themselves are maturing at a slower rate
- Are dependent on parental beliefs and values but seek to make their own decisions
- Are often intimidated and frightened by their first middle level school experience because of large numbers of students and teachers and the size of the building
- Desire recognition for their efforts and achievements
- Like fads, especially those shunned by adults
- Often overreact to ridicule, embarrassment and rejection
- Are socially vulnerable because, as they develop their beliefs, attitudes and values, the influence of media and negative experiences with adults and peers may compromise their deals and values.

2.3 Unmet Needs of Adolescents

Adolescents have specific reproductive health needs based on their age, sex, marital status and socioeconomic situation. Knowing about such factors can help providers

and various stakeholders of adolescent reproductive health to be more responsive to young people's reproductive health care needs (United Nations, 2000). Unfortunately, adolescents are missing out in the area of education about sexual and reproductive health. Some of the unmet needs of adolescents are the following:

1. Information on reproductive health issues

Lack of information is an important reason for unmet need. Enabling young people to make responsible choices, ensuring their safety and health, and overcoming discrimination are critical to our common future. Unfortunately, much progress has not been possible in this direction because some people still believe that sexuality education promotes sexual activity, and stemming from this belief, they oppose programmes that provide access to sexual and reproductive health and services. Fortunately, research evidence and experience both show the opposite: sexuality education courses do not lead to earlier or increased sexual intercourse. Evidence from researches commissioned by the World Health Organization and UNAIDS indicates that there is no support for the contention that sexuality education encourages sexual experimentation or increased activity. Rather, access to age – appropriate comprehensive sexuality education encourages higher levels of abstinence, later start of sexual activity, as well as higher use of contraception and fewer sexual partners for those who have initiated sexual activity (UNAIDS, 1998).

Sexuality education is the lifelong process of acquiring information and forming attitudes, beliefs, and values about identity, relationships, and intimacy. It encompasses sexual development, reproductive health, interpersonal relationships, affection, intimacy, body image and gender roles. (National Guidelines Task Force, 1996).

2. Support and skills to postpone starting sex for those who are yet sexually active. Some young people are not yet sexually active, they need support and skills to postpone starting sex. Some suffer from sexual abuse and they need protection and care, particularly at this critical time when there is a threat of death from AIDS. Some start sex before marriage and change sexual partners several times before they marry. They need help to either abstain from sex or use condoms to prevent pregnancy and STIs. Life skills programmes are one

way to offer the information and skills that young people need to deal with these issues. (UNICEF, 1999)

- Self- awareness (self esteem) and empathy
- Private communication and interpersonal relationships
- Decision making and problem solving
- Creative thinking and critical thinking
- Coping with emotions and coping with stress

According to WHO (1998), Life skills programmes aim to foster positive behaviors across this range of psycho-social skills, and to change unacceptable behavior learned early, which may translate into inappropriate and risky behavior at a later stage of life. Life skills programmes are one way of helping children and youth and their teachers to respond to situations requiring decisions, which may affect their lives. Such skills are best learned through experimental activities, which are learner centered and designed to help young people gain information, examine attitudes and practice skill. Therefore life skills education programmes promote positive health choices, taking informed decisions, practicing healthy behaviors and recognizing and avoiding risky situations and behaviors.

Life skills programmes provide a variety of exercises and activities in which children do something and then process the experience together, generalizing about what they learned and ideally, after much practice in the programme, attempt to apply it to future real life situation. Life skills therefore help young people to deal effectively with the demands and challenges of everyday life and to respond to the difficulties encountered in everyday life.

They help children become socially and psychologically competent and to function confidently and competently with themselves, with other people and with the community.

One of the most important skills young people need to acquire is the ability to analyze situations, the behavior of individuals, and the consequences of their own actions, prior to engaging in those actions. They also need to lean how to avoid certain situations.

They need to understand what risky behavior entails and how to manage or avoid risky situations.

In the area of psychosocial development, adolescence is a period when the young person acquires a sense of identity. It is exemplified by the fact that they draw apart from older member of the family and develop more intense relationship with peers and take major life decisions (Ajuwon, 1995).

2.4: Menstruation

Puberty begins with a growth spurt; this is followed by the development of the secondary sex characteristics, including breast development, a widening of the hips, appearance of pubic hair, and the development of the genitals. What menarche indicate when it does occur is that there is sufficient activity within the ovary to have secreted some estrogen to induce uterine development and to have caused bleeding.

Girls are born with ovaries, fallopian tubes, and uterus. The two ovaries are oval-shaped and sit on either side of the uterus in the lowest part of the abdomen called the pelvis. They contain thousands of eggs, or ova. The two fallopian tubes are long and thin-like hollow strands of spaghetti (only a little bit thicker). Each fallopian tube stretches from an ovary to the uterus, a pear-shaped organ that sits in the middle of the pelvis. The uterus, or womb, can enlarge quite a bit and it later becomes the home for a developing baby.

As a girl matures and begins to enter puberty, the pituitary gland produces chemicals that stimulate an egg in the ovary to "mature" and produce hormones called estrogen and progesterone. These hormones have wide effects on a girl's body, including physical maturation, growth, and emotions. The hormones also help prepare the girl's body to be ready for pregnancy.

About once a month, this tiny maturing egg leaves one of the ovaries-in a process called ovulation and travels down one of the fallopian tubes towards the uterus. In the days before ovulation, the uterus, stimulated by estrogen, begins to build up its lining

with extra blood and tissue, making the walls of the uterus thick and cushioned. If the egg reaches the uterus and is fertilized by a sperm cell, it attaches to the cushiony wall of the uterus, where it slowly develops into a baby.

During most of a female's monthly circles, the egg isn't fertilized by sperm and does not attach to the wall of the uterus. The uterus sheds the extra tissue lining. The blood, tissue, and unfertilized egg leave the uterus, going through the vagina on the way out of the body. This is a menstrual period. This circle will happen almost every month for several more decades, until a woman no longer releases eggs from her ovaries.

The menstrual cycle in adulthood takes an average of 28 days and involves the hypothalamus, the pituitary gland, the ovaries, the endometrium and the secondary sex organs. The periodicity is inherent in the hypothalamus, which controls the cycle. The hypothalamus produces hormones, or chemical messengers which act on the pituitary gland. This stimulation of the pituitary gland leads to the production of two gonad trophic hormones: follicle stimulating hormone (FSH) and luteinizing hormone (LH). FSH brings about the development of Graafian follicles within the ovary, each follicle consisting of an ovum and surrounding cells. Approximately fifty of these follicles start to mature fully while the other retrogresses. This dominant follicle enlarges under the influence of FSH and as a result of a sudden surge of LH, ruptures and releases an ovum; ovulation usually occurs around day 14 of the cycle. (See appendix 4)

As the dominant follicle matures and enlarges the cells surrounding the ovum produce the hormone oestrogen, and when ovulation occurs and the follicle collapses, becoming a corpus luteum or yellow body, the hormone progesterone is produced. These two hormones, oestrogen and progesterone, importantly affect the womb. Oestrogen first produces thickening or proliferation of the endometrium, then progesterone produces secretions to fill the glands of the endometrium in preparation for the implantation of the ovum, if fertilization takes place. If fertilization does not take place, then the corpus luteum degenerates into a hyaline body known as corpus albicans. The levels of oestrogen and progesterone fall and the endometruim is shed, appearing as blood- the process we know as menstruation. Menstruation has been

described as the outward sign of the end of an abortive cycle and the optimistic commencement of the next (Scambler and Scambler, 1993; Izenberg, 2002 and Beech, 2005).

2.4:1 Answers to questions which respondents asked about menstruation.

- All the responses were gotten from Delano and Olokode 2006, Balepe, 2007.

Why is it that some girls had delay in onset of their menarche?

Menstruation normally happens every month nowadays, it usually begins for a girl between the age of nine and the age of thirteen. Some start early while some start later. Whatever age you start does not rally matter. The most important thing is to start. Your friend may start at age ten while you are starting at age thirteen your bodies are different.

Another way is for the girl to ask her mother, if her mother started menstruating at an early age, there is a good chance that her daughter may start early, if the mother started late, there is also the chance that she too may start late. The girl should ask her mother or an older family member she is close to or a health worker about menstruation and this will help her get useful information that will put her mind at rest.

What can one do to avoid having pains during menstruation?

Oftentimes, majority of women experiences stomach cramps at the onset of their menstruation. In fact the cramp announces the coming of the menstruation. Some experience it only at the onset while others experience the stomach aches throughout the period of their menstruation. A simple pain reliever often does a lot of wonders. If the ache persists, you may need to see your doctor to prescribe a stronger pain reliever for you.

In order to reduce the different forms of pains in the stomach and on all other parts of the body, regular exercise is recommended for all girls. Also, if you exercise regularly you will never loose your figure whatever your age. Try as much as possible not to put on white skirts or white dresses, choose to wear darker color. This is because it will not be too obvious in case your skirts or dress get stained.

Menstrual pains or cramps can be prevented by:-

- Taking plenty of rest
- Taking balanced diet
- Taking exercise regularly
- Eating less salt most especially ten days to the period
- Eating less sugar e.g. chocolate, sweet, cakes, pies sugar, soft drinks etc

Menstrual cramps or pains can be relieved by:

Home made treatments:-

- Applying hot water bottle or heating pads on a lower abdomen (be more careful to avoid burning the skin)
- Taking hot or steam bath
- Carrying out vigorous physical exercises such as Running, Jumping, Jogging, Swimming, Playing Football, Hand ball or Net ball.
- Massaging the lower leg or calf
- Taking hot drinks such as tea and milk
- Taking simple pain relieving tablets e.g. Aspirin and Paracetamol
- If pain is severe or persistent throughout the period, see a doctor

Exercises to relieve menstrual pains

1. **Pelvic press**
   - Lie on the floor face down with palms on the floor beside the shoulder
   - Raise the head and shoulders off the floor until the arms are out stretched
   - Repeat several times
2. **Cramp**
   - Lie on the side, with knees drawn up to the chest and head tucked under the neck to touch the knees.
3. **Pelvic rock**
   - Lie on the floor face down

- Stretch arms behind the back to grasp the ankles.
- Bend the knees and bring the feet up to met the hand
- In this position, the legs, hands and shoulders will be off the floor
- Gently rock sideways in this position

4. **Stretching**

- Stand with the back against the wall with as much of the body as possible touching the wall.
- Try to feel as if the head is drawn upwards to increase the height.

What are the causes of irregularity in menses?

The first few months of your menstruation period may be irregular. You may experience it this month and not see it again next month or sometimes, you may experience it twice before the end of one month. Do not get alarmed, it will eventually get very stable and it will begin to flow more regularly. (Balepe, 2007). When a girl starts to menstruate, her period becomes irregular but as time goes on, it will correct itself. If worried, such a girl should see a doctor. (Delano et al, 2006).

Basic knowledge about menstruation

Menstruation is the normal monthly shedding of the lining of the uterus. This happens every month when the female ripe egg is not fused with the male seed or sperm. This lining which mixes with blood comes out as menstruation. The shedding of the lining takes place so as to allow the uterus to grow a new lining. (Delano et al, 2006)

Girls usually start to menstruate from age of 11 or 12 years. Some start as early as age 9 and others may start as late as age 15 or 17, as soon as a girl begins to menstruate, she can become pregnant if she has sexual intercourse. The start of menstruation does not mean that the girl's body is mature enough to carry pregnancy or take up the responsibility to mother a child or be a parent. Moreover pregnancy at this age is risky for the girl's health. However, if a period fails to start after age 15, it is advisable to consult a doctor for expert opinion. (Delano end Olokode, 2006)

Some myths about menstruation

1. Menstruation has nothing to do with ridding the body of poisonous products or bad blood. In fact, the menstrual blood is usually freshly made; it is almost the newest blood in the body. The blood does not harm you when it does not come out and neither does it weaken you.
2. Some people say menstruation must not be discussed openly. This is a misconception because it does not add or remove the fact that you are menstruating.
3. It is not true that blood tonic and drinks increase menstrual flow
4. Douching is the process of washing the vagina. It has nothing to do with menstruation.
5. it is not true that menstruation is dangerous and weakening
6. It is not true that washing your hair during menstruation is going to increase menstrual flow, or cause a cold or pneumonia
7. It is not true that it is dangerous to take a bath or do exercise during menstruation.
8. It is not true that when a woman is menstruating she is unclean. The knowledge that you now have about what menstruation is and how it occurs, should prove to you that this is not true.
9. A woman may stop menstruating when she is about 45 – 50 years old; her body starts to make fewer female hormones. As a result the ovaries stop releasing eggs, menstruation stops and she is no longer able to become pregnant when a woman stops menstruating, she is now in her menopause.

Other reasons why menstruation stops

- When a woman has problems with her female hormones
- When a woman is pregnant. However menstruation should resume some weeks after delivery of her baby.

(Delano et al, 2006 and Balepe, 2007)

2.5: Names attributed to menstruation

The language commonly used in seventeenth century England contained delicate terms such as "Sickness", Monthly disease, vapors, Monthly infirmity, while the medicos would suggest monthly evacuation, or natural purgation's. The language of menstruation was mainly negative. (Dickson and Wood, 1995).

Slang terms for the period reflect social usage and individual experience. Margaret Drabble has complained that the impoverishment of common words for the period impoverishes our thinking about it. In English, the two most frequent middle- class terms are 'menstruation', a clinical term, or 'the curse', a pejorative. "Curse" might originally have been "course'-"the courses" is still occasionally extant. Vieda Skultans has shown that in Awelsh mining community the keywords are "to lose", "to see" and "natural"." period" is frequent but it is neutral. You can have a "period" of anything. Many languages have more interesting and more friendly terms. One of the most frequent is "the moon" or "the moment of the moon"; also "the benefit"; "woman's friend". Menstruation is also called "wonderful" or even "god'.

Less frequent terms reflect various attitudes or avoidances. Occasionally it is sexual availability, as in saying she's "in season" or " really slick"- frequently terms used by the men express disgust: "blood and sand"; " dirt red"; "gal's at the stockyards"; "ketchup"; "the rat"; or sexual unavailability: "ice-box"; "Mickey mouse in kaput"; " manhole covers"; "she's covering the waterfront"; or sexual ambiguity: "her cheery is in sherry"; " she is out of this world'. A current Americanism is OTR, meaning " on the rag", and before tampons the sanitary towel made many colloquial appearances: " riding the red rag"; "riding the cotton bicycle"; " the hammock is swinging"; " the tailor"; "flying the mainsail".

For the women themselves, frequent euphemisms imply the visits of relatives or guests, sometimes senior ones: "Grand ma is here"; "Grandma has left, thank God"; and sometimes junior: "little sister is here". "My country cousin" may visit so may

"Aunt Jane/Susie", "my red- headed aunt from Red bank", "Aunt Emma from Reading" or "Grandma from Red crick. A woman may say " I'm bloody Mary today", or she may be entertaining distinguished male visitors, such as " Freidrich Barbarossa", " The Red Guard", " Little Willie", " Reggie" or even " lacrimae Christi". "The Friend". A woman may say that she is "Reading a book", "has come in", or that she has received her "package of troubles". She may merely be "losing blood", or she may be "Swinish" or "So wish". The period may be "The Red road", "The Woman's way", "The Witness" or "Las Reglas"; the rules. One puzzling usage is "falling off the roof", but this sometimes a dream-image for menstruation, roof-tiles are often red, and it could reflect the falling-off from a premenstrual high. There is often a burst of energy late in the cycle which may replace the tension. In Nigeria some of the slang's used for menstruation were "periods"; "I'm on"; "Time"; "I've killed a fowl"; or my "Flower" is on.

Although some of the language of menstruation remained negative, the biological processes and pubertal changes, although not fully understood, were at least now considered normal stages in a woman's life. Despite this Crawford (1981) states that women kept their menstruation private. Sudden onset was a potential source of embarrassment, but its occurrence was no longer cause for alarm.

2.6: Age at menarche

Over the past century and a half the average age at menarche has declined in modern western countries from 17 years to 13 years, the normal range being 10 to 16 years (Elder, 1998). Menarche, described as the onset of menstruation is accepted as a symptom of the transition to reproductive period of the girls. In the case of menarche, there is a changing material body to consider along with its figurative and ideological representations. For example, in 1780, the average age at menarche in the United States and Western Europe was probably about 17; by 1877, the average age had declined to almost 15; by 1901 it was 13.9; by 1948 it was 12.9. Today, menarche generally occurs at about twelve and a half years old, and this developmental material reality makes it a different experience from the time it occurred typically in the late

teens closer to the time of marriage. Menarche, therefore is commonly seen at the age of 12- 13 years old. Physical maturation for girls generally begins around 9.5 years and roughly two years later, at age 12.5, menarche should begin (Paikoff and Brooks-Gunn, 1991). Adult women and adolescent girls are accurate and relatively uninhibited in remembering their age of menarche. Scientific studies have shown that menarche comes neither at the beginning nor at the end of the period of the physical changes taking place at puberty (Greif and Utman, 1982). According to Beech (2005), most girls get their first period when they are 10 to 16 years old; the average age is 12.5 years. Women continue to have their period until they are 45 to 55 years old when menopause occurs. However these periods stop during pregnancy.

Between the ages of 10 and 14 years, most boys and girls begin to notice changes taking place on their bodies. These changes which take place, over a number of years also include emotional changes and are sometimes referred to as puberty. The changes take place in all boys and girls but they will start at different times. Generally the changes start later for boys than for girls; in some people they start before the age of 10. Other people will start to change after the age of 14. The changes also take place at a different rate in different people. In some people all the changes take place in 2 years, in other people they can take as long as 4 years, (Jimerson, 2005).

Generally girls enter puberty between ages 8 and 13 years and reach menarche several years later, while boys enter puberty between ages 9 and 14 years (McCauley and Saltier, 1995), thus lengthening adolescence (Population Reference Bureau, 1996). Most girls will have their first period between the ages of 11- 14. But some girls will start as early as 8, while others may be as late as 17. Once a girl has had her period a few times she may notice that her body or mood changes slightly beforehand. For example, her breast may feel sore, or become larger, or she may get spots on her face. But no one can tell if a girl has her period by looking at her.

Izenberg (2002), states that just as some girls begin puberty earlier than others, the same applies to periods. Some girls may begin to menstruate as early as age 9 or 10, but others may not get their first period until their mid to late teens. Some girls will

find that their menstrual cycle lasts 28 days, while others might have a 21-day cycle, a 30- day cycle, or even a 45 – day cycle. The amount of time that a girl has her period also can vary, some girls have their period just 2 or 3 days, while others may have it for up to 6 or 7 days or longer, in the entire periods the quantity of blood that comes out consists from a few spoonfuls to ½ cup of blood.

In previous generations the age of girls' first period was an average between 14- 17 years, now that figure is between 11- 13 years. Dashiff (1986), suggests that young girls should first be exposed to menarcheal education prior to onset, perhaps as early as fourth grade (9 to 10 years). Etuk, et al (2004), it was found that the average age at menarche is 12.86 years among junior secondary school adolescents in Calabar. Another study by Zuckerman (2001), suggested that at age 12, 62% of African-American girls and 35% of white girls had begun menstruating. For white girls in the US, the age of first menstruation has remained stable over the past 45 years. In African- American girls, age at menarche has declined by about 6 months in the past 20 to 30 years.

The pubertal timing and its rate in girls is highly variable and many factors contribute to its process; such as hereditary, health, nutrition, and body mass. The single best predictor for the onset of menarche is weight, which is approximately 106 pounds when menarche begins. (Moffitt, Caspi, Belsky and Silva, 1992). Belsky, Steinberg and Draper (1991), has found that the timing of puberty largely depends on complex interactions between genetic and environmental factors. Several studies have documented the importance of environmental factors in the timing of menarche in girls. A variety of other factors including family conflict, stress and nutrition have been found to influence the age of menarche. Steinberg (1987), have found family conflict to be an important stress factor affecting timing of puberty. Studies in the United States and New Zealand have found that adolescents who experience a high level of family conflict reach menarche earlier than those girls who live in more harmonious families. (Moffitt, 1992).

Zuckerman (2001) felt that the change in age at menarche in African- American girls may be due to their coming closer to achieving optimal nutritional and health status. It is well documented that girls start to menstruate earlier due to protein- rich diets and hormones in food. According to Elder (1998), this decline can almost certainly be attributed to a combination of a rise in material living standards and improved and more accessible health care, since body weight at menarche seems to have remained constant throughout this period, at 45-47kg. It has been suggested that a critical weight may need to be attained for menarche to occur.

. In the studies carried out in various countries, the distinction among menarche age averages were observed. In a study carried out in France, average age of menarche was 12.8. It was 13.06 in Germany, 12.3 in U.S.A and 13.5 in India (Raboch and Raboch 1986; George, et al, 2001). Also researches carried out in various regions in Turkey, average menarche age was determined between 12 and 13 years old (Ozsurekcigil, 1989). In North America, age at menarche decreased by three to four months each decade after 1950; in 1988 the median age at menarche was 12.5 years among American girls, in Kenya average age at menarche fell from 14.4 in late 1970s to 12.9 in the 1980s(McCauley and Saltier, 1995).

The average age at first marriage in Nigeria is 16. Child marriage is particularly common in the North, where the majority of girls are married between the ages of 12 and 15(International Reproductive Rights Research Action Group-Nigeria, 1995). The National Policy on Population discourages early marriage and states that parents should not arrange marriages for girls below the age of 18. Child marriage is practiced with the belief that it reduces promiscuity among young girls and because of the importance attached to virginity (Conference on Sharia and Women's Human Rights in Nigeria, 2002). The cultural practice of marrying girls at very tender ages sometimes at 12 years or younger to older men, for example among the Hausa- Fulani of Northern Nigeria and adherents of the Islamic religions, is also taught to be fraught with danger. Traditional requirements for premarital virginity vary across tribal communities. The demise of arranged marriage is evidenced by the present-day disregard for premarital virginity. This change is related to beliefs about the relationship between virginity and

fertility, which in turn reflect ideas about paternal control of women's bodies and marriage. In traditional Southern Nigeria, betrothal takes place at all ages, even from before conception in the womb-on the chance of the infant being a female- until the girl has reached marriageable age; it usually however, occurs when the child is a few years old. This is noted for the Edo, Sobo,Ijaw, Esthern Ika, at Akwa, Degema Division, Owerri Division and further at least among the Abadja, Amasiri, Iji, Ezza, Aro, Ihe, Ututu, Semi- Bantu, Ibibio, Orri, Yachi, Ukelle, Ekuri Akunakuna, Mbembe, Ekoi, Etung, Olulumaw, Nde, Afitopp, and Northern Nkumm. Later (childhood, pubescence) betrothals are noted for the Iyala, Atamm, and southern Nkumm (Etuk et al 2004). In 1950 the legalized age of marriage was 13, while menarche occurred past age 14. In Ibadan, Nigeria, a local myth would state that STDs are cured by intercourse with young virgins. (Sogbetun , 1977).

TABLE 2.1 MENARCHE AGE OF SOME COUNTRIES

S/N	Country	Menarche age (years)
1	Germany	13.6
2	India	13.5
3	Kenya	12.9
4	France	12.8
5	Nigeria	12.8
6	U.S.A	12.3
7	Turkey	12.3

The Table above was made from results on studies carried out by various researchers in various countries. (Raboch and Raboch, 1986, George et al, 2001, Ozsrekcigil, 1989 and McCauley and Saitier, 1995)

2.7: The significance of early age at menarche: -

According to Phinney et al, (1990) girls who started menarche earlier tend to begin dating and having sexual intercourse younger than their classmates, according to a national study of 1,800 girls between the ages of 15 and 19. Among white and

Hispanic girls (but not African American girls), early menarche was associated with earlier marriage.

Girls who mature early experienced more psychological stress, and were more vulnerable to deviant peer pressures and fathers' hostile feelings, in a study of 200 adolescents. (Ge et al, 1996). A study of 33 girls from 6-11 years of age who experienced precocious puberty (secondary sexual characteristics before age 9) found that they have more behavior problems than other girls. They were more likely to be depressed, aggressive, socially withdrawn, have sleeping problems, and report obsessive behavior. (Sonis et al, 1985)

In a study of 1,700 high school students from Oregun, those who report that they matured earlier than their classmates were more likely to drink and smoke, and twice as likely to have had substance abuse and disruptive behavior disorders. They also tend to have lower self-esteem, poorer coping skills, miss more days of school, and were more likely to attempt suicide (Graber et al, 1997). Erickson's thought on the mother-daughter conflict during puberty, according to Erickson, identity development demands that the individual pass through periods of commitment and crisis. Commitment is characterized by conscious decision making, and in contract, crisis is defined as personal exploration of and investment in a system of beliefs. The degree to which an individual engages in one or both of these two elements can explain other aspects of ones personality, including anxiety, self-esteem, moral reasoning and patterns of behavior.

In their search for a new sense of continuity and sameness, adolescents have to re-fight many of the battles of earlier years. During this process young people develop individual personality characteristics; likes and dislikes, talents and disabilities, strength and weakness that eventually become ingrained in their person. These individual characteristics emerge from societal environment and from the roots of family and school conditions. A good number of people develop adequate knowledge, positive behaviors, pro-social attitudes and other healthy characters. For children like

this the risk of future problems is low. However there are several other children that are not as fortunate. (Adegoke, 2003).

Teenage pregnancy, sexually transmitted diseases, and the emotional trauma of sexual abuse are also serious concerns. Maturing young girls will have to cope with their own confusing sexual feelings as well as the impact that their appearances has on boys and men. Whether a 10-year-old girl becomes sexually active because hormonal changes influence her sexual interest, or because her appearance attracts older boys and men, the result could be the same. Young girls will need help to prevent them from being sexually abuse or exploited, and from the risks of "Consensual" sexual activity (Zuckerman, 2001).

2.8: Environmental conditions for early menarche

Guillette et al (1994), Yamomoto et al (1997) and Howdeshell et al, (1999) believe that earlier Puberty is caused in part by the widespread exposure to Pesticides and other chemicals that have qualities like estrogen. There are a number of studies showing that chemicals that disrupt the endocrine system can affect pubertal development or sexual behavior in animals. In addition, according to Colon et al (2000), there are studies in people that show a correlation between exposure to endocrine- disrupting chemicals and changes in pubertal development. Ditmar, (2000); Beausang, et al, (2000), stated that the age of Menarche is associated with the genetic structure of the girl, geographic region she lives, her nutrition and socio- cultural structure. While menarche occurs earlier in the regions near to the Equator undergoing sunlight much more, it happens later in the Northern part of Europe.

In a correlation study of puberty and parent- child distance, Steinberg (1987), found that girls who reported having more strained relations with their mothers matured faster and attained menarche earlier than their counterparts. Research has demonstrated that pubertal timing can no longer be viewed as only a physiological and hormonal process but must be examined in association with social and psychobiological processes

One of the most provocative studies shows that Puerto-Rican girls, who have premature breast development have higher blood levels of a particular type of chemical called phthalates, used in many cosmetics, toys, and plastic food containers. A recent study by the centers for Disease Control and Prevention (CDC) showed that women of childbearing age have the highest levels of phthalates in their blood, perhaps putting their future children at risk of early puberty or other reproductive problems (Blount et al, 2000). Kaplowitz, (1999) believed that at least part of the explanation is overweight. Since a certain amount of body fat is required for normal reproductive function. Fat cells manufacture leptin, a hormone that might be involved in triggering puberty. If girls get to a higher level of body fat and secretes enough leptin a few years earlier than they did in the past, it is possible that the first signs of puberty could emerge earlier.

2.9: Adolescent girl perception of menstruation

By the mid-nineteenth century, evidence began to appear that American mothers were not adequately preparing their daughters for menarche. In 1852, a physician who pioneered in the field of obstetrics and gynecology, Edward John Tilt, found that of one thousand girls, 23% was totally unprepared for their first menstruation, Many, he said, were frightened and thought that they were wounded. Tilt lamented the fact that so many girls did not know what was happening to them when they started to menstruate because mothers failed to provide adequate information (Flashbulb, 1987). Many teens of either gender do not have a complete understanding of a woman's reproductive system or what actually happens during the menstrual cycle- making the process seem even more mysterious (Izenberg, 2002).Menarche may create inconvenience, ambivalence and confusion, particularly for early maturing and unprepared girls, but it may not be as traumatic as portrayed in previous articles.

In moving what has been an essentially anthropological concern into the realm of American social and cultural history, it is hope to dispel the notion that the treatment of menarche is culturally neutral because it is simply a matter of "hygiene". Although they do not isolate, segregate, or formally restrict their girls at menarche, they do have

a set of socially shared beliefs and practices about menstruation that are sufficiently consistent to resemble a "menstrual taboo" and these have consequences for girls at menarche. Part of this taboo is the idea that women should not talk about their monthly bleeding (although women and girls clearly do), and that , when menarche occurs, it should remain a private concern without public acknowledgement. But the trouble with a great deal of thinking on this subject is that it portrays their menstrual taboo and menarche itself as fixed and universal when in fact both are changeable, subject to reformation, and highly specific to time and place.(Berkeley, 1988).

In western societies, girls are exposed to contradictory messages about menstruation: girls are congratulated on their entry into womanhood, while at the same time it is suggested that "it" should be kept secret (Beausang, 2000). As a result, menarche is associated with a series of contradictory beliefs and feelings, and girls experience a mixture of positive and negative feelings at the same time such as: happiness and fear; excitement and anger; excitement and nervousness; anxiety and pleasure; acceptance and rejections; support and loneliness; self control and loss of control (Andrew, 1984; Golub and Catalano, 1983; Morse and Mekkinon, 1987; Peterson, 1983; Ruble and Brooks-Gun, 1982).

Apart from learning about reproductive roles, women were denied full knowledge of the physiological changes and hormonal responses required for menarche to commence. Social and cultural expectations revolved around a myriad of taboos and whispered secrets. Women were literally kept in the dark about their own body processes and were told to keep menstruation hidden (Dickson and Wood 1995). According to Shuttle (1981) there is a relationship between lack of preparation and a sense that menarche was traumatic. She also found a relationship between premenstrual tension and lack of adequate preparation at menarche. Mothers hide menstruation from their daughter believing that they are protecting her without knowing that what they are actually doing is shaming her by thinking that menstruation is something to hide.

Young girls received little, if any, preparation from onset and their menarche experience remained cloaked in secrecy. In an American study on menstruation found that one-third of those surveyed had not been prepared for menarche and two-fifths reported a negative experience. In a recent study by Uche and Osaghae, (2001) parent-child communication in sexual matters was non- existent or negative before maturity, which for girls is at age of menarche. The negative communication concentrated on the possibility of pregnancy and the dangers associated with it, including shame for the girl and the family. Though contemporary village society is more open and sex is being more freely discussed, communication in sexual matters between parent and child remains minimal.

According to Costa and Hosansky, (2001) it was detected that 14.6% of girl students received knowledge about menarche while 85.4% of them did not receive any knowledge. By, menarche, girls are likely to have been influenced not only by cultural stereotypes about menstruation, but also by information acquired through significant others. Their own expectations about menstruation are likely to influence their reports of menarcheal experience. Moreover, some suggest that these expectations may in turn, influence perceptions of menstrual symptoms through psycho-physiologic mechanisms (Woods, Dery and Most 1982).

It undoubtedly is difficult for fourth, fifth or sixth graders to find personal meaning in abstractions linking menstruation with femininity, womanhood, and reproductive potential. Also, it must seem paradoxical to be told that menstruation is normal and natural and something to be happy about while being instructed both to conceal its occurrence and to carry on as if nothing were happening. Characteristic of this approach to menstrual preparation is the emphasis on menstruation as normal and natural and the relative neglect or minimization of its bothersome aspects (Golub, 1993).

Public debate on the issue of menstruation as debilitating disease was brought to the forefront during the nineteenth century. Girls required frequent rest from school and physical exertion because they were constantly informed that menstruation was a

disability to be endured. Menstruation was viewed as normal yet incapacitating: 'the most active days of the period could be disagreeable, debilitating, and painful' (Gay, 1984).

2.10: Source of information on menstruation

According to Edward, (1851), mothers and other adult women were the primary and most regular source of information about the biological realities of womanhood. Adult women also served as accessible role models for young girls in a society where there was little discontinuity between the experience of mothers and of their daughters. Learning about being a woman was a kind of "integrated core curriculum" that happened organically as part of day-to-day life. In the absence of books and pamphlets on the subject of female biology, young women in the eighteenth century learned by word- of –mouth from older women about their menstrual "Flowers" (Hake, 1972) mothers were listed as the main informants in sexual matters. Older sister, aunts, house- mothers in boarding schools, female principals and grandmothers also helped some of the female subjects in this matter.

Anthropological studies provide a model of only limited usefulness in terms of describing the changing context of menstrual education in the United States. In most ethnographic studies, sexually maturing girls learn about cultural control of their bodies from older women; in these small, traditional societies, young women acquire the skills necessary to manage "women's mysteries" – that is, menstruation and childbirth- within intergenerational, single- sex groups in which mothers and other adult women play a primary role. Sitting at the feet of older women girls absorb practical information, cultural values, and a larger sense of their female identity. Although there were critics who worried about "decency" and feared that teachers were trying to usurp the maternal role, the experience of the war, combined with the report of urban social workers, confirmed that the lack of preparation had social costs. The model of maternal initiation remained a nostalgic ideal, but physicians and educators recognized a new reality. "No one can quite take the place of the mother in instructing her daughter in the simple and beautiful truths of the reproductive life and its various manifestations", wrote Emil Novak in 1921. However (When) such home

instruction is out of the question... there is a legitimate field for the activity of various agencies now interested in 'sexuality education' of young people.

Although there would be a debate among educators over where menstruation should be taught; in Biology, physiology, physical education or home economics classes; the teachers physicians, and social workers who made up the social hygiene movement generally agreed that as far as sex information is concerned, 'better a year too early, than an hour too late'. Consequently, menstrual preparedness was linked to the imperatives of the social hygiene movement, and it became a regular part of progressive Era curricula in the schools and in the programs of groups for girls, such as the Girl Scouts. The emergence of mass- produced sanitary products also had a potential effect on the experience of menarche. After World War 1, the sanitary products industry saw the vast commercial implications of the "inadequate mother" and adapted it to their own purposes. (Novak, 1921)

Girls today have access to a variety of source of information about menstruation (Abraham et al., 1985; B rooks- Gunn and Ruble, 1982a; Havens and Swenson, 1988, 1989). They learn about it from mothers, siblings and peers, teachers and health providers, booklets and films, resources and efforts to improve the content, mode of presentation and cognitive accessibility of educational materials (Havens and Swenson, 1989), much of the information remains impersonal and abstract, and difficult for girls (Abraham et al., 1985) and their mothers (Lei, Knight, Llewellyn-Jones, and Abraham, 1987) to assimilate.

There is still a tendency to focus on the immediate and obvious biological and hygienic aspects of menstruation such that knowledge is disconnected from girls' own body experience (Koff, 1981).It must be a challenge for girls who lack familiarity with the body parts involved in the menstrual cycle, and in particular with the internal reproductive organs, to relate the abstract information they receive about anatomy and physiology to themselves and their bodies. They also must reconcile directions to minimize or ignore internal bodily signals while simultaneously being cautioned to

monitor themselves for the possibility of accidents or odors that might be observable to others.

Demehin, (1983) observed that colonization has removed the traditional forms of sex education through initiation rites and pre-marital counseling by the elders so that young people nowadays rely mostly on peer information or erotic movies and publications. He said that the only avenue left open to teach sex education is through the school system.

Gray, (1990) confirmed the influence of mothers as educators noting that 455 of girls stated that their mothers were the most appropriate source of information. Most adolescent females had been informed about menstruation from their mothers but some had not received any information at all. The information passed on from mothers contained some details about biological processes, menstrual products and mother's/ sister's experiences. Sisters passed on information about their experiences with menstruation and generally offered information which led to the negative perceptions of pain, suffering and crankiness. When a girl has neither a mother nor a sister to talk to, she is most likely to confide in an aunt, grandmother or close female friend before turning to her father or brother (Dickson and Wood 1995). Many mothers find it much easier to talk with their daughters about conception, pregnancy and birth than about menstruation.

Mothers were expected to provide supplies, although most girls thought that peers were preferable sources of information about some of the personal details of menstrual hygiene. They believed that good friends should be the ones to teach a girl how to use tampons, which is encouraged as well in advertising of menstrual products, in which mothers are portrayed as well-meaning but old-fashioned for promoting the use of pads (Haven and Swanson, 1988).

Most girls felt that menstruation should not be discussed with fathers, although they wanted fathers to know that it has begun. They believed that fathers should silently communicate their support, but speak only if spoken to. Directions to fathers, in fact,

mirrored the paradoxical directions given to girls in commercially produced educational materials: be aware and concerned but act as if nothing is happening (Haven and Swenson, 1988). Data relevant to the role of fathers, and to a lesser extent other males are scarce and difficult to interpret. In one study, girls who did not discuss their menarche with their fathers reported higher levels of menstrual symptoms (Brooks-Gun and Ruble, 1979); in another, learning more about menstruation from male source was viewed as negative and also was related to higher levels of menstrual symptoms (Brooks-Gun and Ruble, 1982a)

Bech (2005) found that it is a good idea for a girl to talk to her mother about her periods, or if this seems difficult or is not possible, she might prefer to speak to a sister, a cousin or someone else she feels comfortable talking to. In a study conducted by Tortumluoglu et al, (2005), 24.8% of girls received this knowledge from their mother, 15% of them received from their elder sisters, and 22% of them from communication means. Izenberg, (2002) states that if girls have any questions about periods; don't be shy about asking a parent, health teacher, Doctor, or Nurse. And don't forget about older friends or sisters who have had their period for a while; they can also be helpful in piecing together the period puzzle.

More complex thought could cause the child to evaluate the quality of the mother-daughter relationship and its deficiencies (Paikoff and Brooks-Gunn 1991). During early adolescence, the assimilation of new ideas and information may be overwhelming, which results in exaggerated idealistic thoughts, and most likely do not measure up to the child's expectations.

Freedman-Doan et al (1992) chose to focus on the changing expectations of the parents as they prepared their oldest child to enter puberty. Their results indicate that mothers expected that the level of conflict would increase during pubertal maturation of their daughters. Additionally, they reported that mothers expected to feel less effective as parents and anticipated emotional distancing from their daughters.

2.11: Experiences on emergence of first menstruation

Studies of young girls indicate that those who develop early are more likely to be depressed, aggressive, socially withdrawn and moody, Sonis et al (1985). Adegoke, (2001) indicated that the pubertal experience could be anxiety- provoking and could bring disappointment and depression. The post menarchial girls reported being scared and upset at their first period, but could not explain why, since they thought it was "no big thing". One girl stated the following: "I was really scared – you know what was happening but it came as a surprise" (See appendix 3).

There is a link between school absenteeism and menstruation, strongest in the first year after menarche and caused as much by embarrassment, depression, and fear of blood showing on their clothing as by any physiological symptoms. A detailed study goes on to suggest that shame about menstruation creates an overall sense of body shame which affects not only a young woman's self- esteem but also her sexual behavior and ability to make wise sexual decisions. The white middle class western women usually recollect the experience of menarche as a time of fear, shame and ignorance (Dickson and Wood 1995). Some girls and women find that they feel depressed or easily irritated during the few days or weeks before their period. Others may say they get angry more quickly than normal, or that they cry more than usual, others may notice cravings for certain foods (Izenberg 2002).

Tortumluoglu et al, (2005), observed that 24.8% of girl students experienced menarche as normal, 10.9% with fear and worrying, 24.1% by surprising and 24.5% with fear and crying. (Woods, et al, (1982) found that adult women's recollections of menarche reflected a general ambivalence; 58% reported being happy, 65% proud, and 75% excited. However, most women also recalled negative feelings; 67% reported being upset, 82% embarrassed, 29% angry, and 74% scared, 80% also said they had been surprised at menarche.

Scambler and Scambler (1985) asked a sample of 79 women in London a number of questions relating to their attitudes towards menstruation. The women were

encouraged to give expression to any positive or negative feelings they may have had. An analysis of their responses 'acceptance', 'fatalism' and 'antipathy' is shown below.

2.11:1 Acceptance

This category contained those women who reported experiencing no menstrual symptoms or who were only marginally affected by them. They saw their periods as essentially 'normal' occurrences:

> It's a normal, healthy thing; everybody has one.
>
> I just accept it as part of the process of life
>
> I just don't take notice of it really.

Those who did experience symptoms either thought nothing of them or played them down. This was the category where women came nearest to displaying a positive attitude towards menstruation, some referring to it as "healthy" or "feminine". Even these women, however, often seemed to feel that attitudes were exceptional or deviant, that what was generally expected of women was an altogether more negative assessment. Some clearly derived some satisfaction from their non-conformity, while others were almost apologetic that they had escaped the distress that everyone else seemed to experience.

2.11:2 Fatalism

In this category were women who defined their periods as a "nuisance", although they always qualified their statements:

> Well I wouldn't want to be without it... it's something you just live with. Isn't it?
>
> They are nuisance but I'd rather have them than not.
>
> I'm indifferent: I know I've got them so I put up with them.
>
> Well, I suppose it's a necessary evil so a woman can have a baby.

These women were resigned to menstruation. It was perceived as an essential part of being female, if not of being feminine.

2.11.3 Antipathy

In this category were all those women who gave evidence of an unqualified or unconditional. This dislike of menstruation ranged from negative feelings of

inconvenience on the one hand, to strong feelings of disgust on the other. It was generally based on perception of menstruation as 'unhealthy', 'unclean', 'messy', and so on.

I don't like them. I'd rather not have them. It's messy and I don't like mess. It's not a thing I enjoy talking about!

I'd rather not have them at all ..... I just think it's messy: it's doesn't seem fair to the women.

I'd rather not have them. I suppose physically it doesn't affect me much, but mentally I don't like it at all.

I don't bloody like them. I think it's because I have so much trouble with the – all the backaches and the stomach aches and the heavy bleeding. I've had so many problems with it ever since I started.

I think it's a horrible mess!

Not surprisingly perhaps, a higher proportion of women showing antipathy toward menstruation were experiencing a high level of symptoms distress (76 per cent) than was the case with women showing either fatalism (45 per cent) or acceptance (40 per cent). This is of course consistent with the finding reported by wood and colleagues that current attitudes towards menstruation may be associated with current symptom experience (although no decisive statement can be made about the direction of causality).

The prevalence of symptoms was 45% moderate or severe pain, 22% moderate or severe headache, 32% moderate or severe irritability, 23% moderate or severe depression, anxiety, nervousness or tension.

The explanations provided to girls as they are being prepared for menstruation may be inadequate or misdirected, and may foster a subjective sense of being somewhat unprepared. For example, explanations may fail to include important aspects of the experience (e.g., what it feels like to menstruate); they may fail to address the personal concerns of maturing girls (e.g., reactions to bodily changes), they may be in a form that is difficult for girls to assimilate; or they may be presented off-time-too early or late to be informative or reassuring (Koff and Rierdan, 1995). Letting girls discover menarche their own inadvertently promotes feelings of inadequacy, shame, and

disgust, as well as a sense of somehow having been misled. Interestingly, although educational commercial materials generally downplay variations in menstrual experience and tend to discount distress associated with dysmenorrheal, along with the nuisance aspects, these are the very factors that are emphasized and pathologies in the menstrual myths and stereotypes of our culture (Delaney et al, 1988; Mckeever, 1984). Perhaps it is not surprising then that despite perceiving themselves as prepared for menstruation, many girls experienced it with some degree of ambivalence and continue to evaluate menstruation somewhat negatively (Brooks-Gun and Ruble, 1982a).

Educating females for menstrual life is complex and multidimensional (Dan and Lewis, 1992; Golub, 1993). College women asked how they would prepare a premenarcheal girl for menstruation (Rierdan, Koff, and Flaherty, 1983), they identify three distinct aspects of preparation- knowledge about the biology of menstruation and menstrual hygiene, emotional support and reassurance, and psychosocial meaning. Preparation has tended to focus on the first of these, knowledge, and indeed, college women stressed this dimension as well. Asking college women to reflect back on their own menarche and suggest ways to improve preparation has both advantages and disadvantages. While college students are mature enough cognitively to be able to analyze an abstract from a relatively recent experience, their data are retrospective, and thereby subject to distortion and a tendency to minimize negative affect (Yarrow, Campbell, and Burton, 1970).

According to a study by Tang et al, (2003) when adolescent girls were asked about their first menstruation, large proportions of female students at six high schools in Hong Kong China, reported having had negative emotional experience; 72-86% had felt annoyed, embarrassed, surprised, worried, scared or confused about their first menstruation, 34-37% had felt angry or sick. In contrast 74% had felt more grown up, 39% more feminine and 14-23% happy, proud or excited by their experience.

2.12: Some memories of first "Periods"

My period started about seven days before my twelfth birthday. I remember that I was just about to take a bath, and when I pulled down my underwear, there was this light

red spotting. I thought it was my period, but I wasn't sure, so I went to my mother and asked her what it was. She said yes, it's your period and that was that.

I got my period when I was 11. I was in the bathroom; it was a slow red trickle, no pain. It was no big deal, even though I thought it could be. I still felt much rolled up. I remember thinking now I'm a woman.

I was 11-in the summer of 1966, I felt disgusted. I had three elder sisters who had prepared me for this moment but I didn't feel prepared- only disgusted. I felt handicapped and trapped. This, along with my growing breasts, was just one more burden to carry.

I was in 8th grade, 13 years old, when I first got my period. My mother and I had just returned from my oldest cousin's wedding shower (the first wedding of my generation), I remember feeling particularly 'adult" because I could attend this adult female party. I was embarrassed and nervous when I realized that I had gotten my period- I didn't know how to tell my mum. We weren't very close and never talked about women's issues. So, I figured out for myself what I was supposed to do and I didn't tell her until the next day when I started getting nervous about school on Monday. She hugged me when I whispered it to her and said something about how I wasn't a baby any longer!

I was at School, I think. I didn't feel particularly moved by the experience (I think I got that out of my system when I previously read "Are you there God? It's me, Margaret," but when I got home I called my mom at work to tell her. She said, "You're a lady now", a phrase whose meaning I only vaguely grasped, never having had "the talk" with my parents.

It started when I was sleeping over at Sally Friedman's house. I was very nervous, I was eleven years old. I didn't tell anyone and just stuffed toilet paper in my underwear. I denied that I got it and I didn't get it again for eight months so it was fairly easy to forget about.

I never forget that moment when I pulled down my underwear and my vision was pulled to a brown stain in the middle of them then I was 13. At first I was scared, thinking, what the hell is that? Am I dying? It didn't look like blood .As I walked to class, my heart started pounding and I started getting this faint idea that this might be IT. To be sure, I asked my friend, Liz Handel, who was a grade below me, and soon I had told all my peers in the eight grades (before you think this is outrageous, it was only girls).

Hi! I come from India and my first periods were celebrated in a very grand fashion. In India, particularly the Southern India, a girl's first menstruation is a matter of great joy to the community. Initially for the first three days she is not allowed to touch anything in the household nor participate in any household chores. During these three days food is brought to her which is very rich in fat. After the three days all the women of the community are invited to a grand function exclusively for women. In the function the girl is dressed in a woman's attire for the first time and songs of a woman's life are sung. After a lunch for those women everyone gives her gifts usually jewelry, and leaves. From then on she is eligible to wear a woman's dress, which is the saree and should always put kumkum (the red spot) on her forehead, which basically signifies womanhood. The only time the kumkum is removed is after she becomes a widow.

2.13: Conceptual Framework

The Social Learning Theory (SLT) developed by the American Psychologist Albert Bandura, (1969) was used for this research. Bandura posits that people learn not only through their own experiences, but also by observing the actions of others and the results of those actions, each individual has a self-system and that human conduct is interplay between the self-system and the environment.

Bandura considered that human activity had four special characteristics; the ability to symbolize their experiences, to learn from others, to regulate their own behavior and to reflect on their own situations. The adolescent girl learns from her experiences on menstruation, there has to be an interplay of her learning experiences which includes her peers, teachers, in the school, parents (most especially her mother) who will tell her

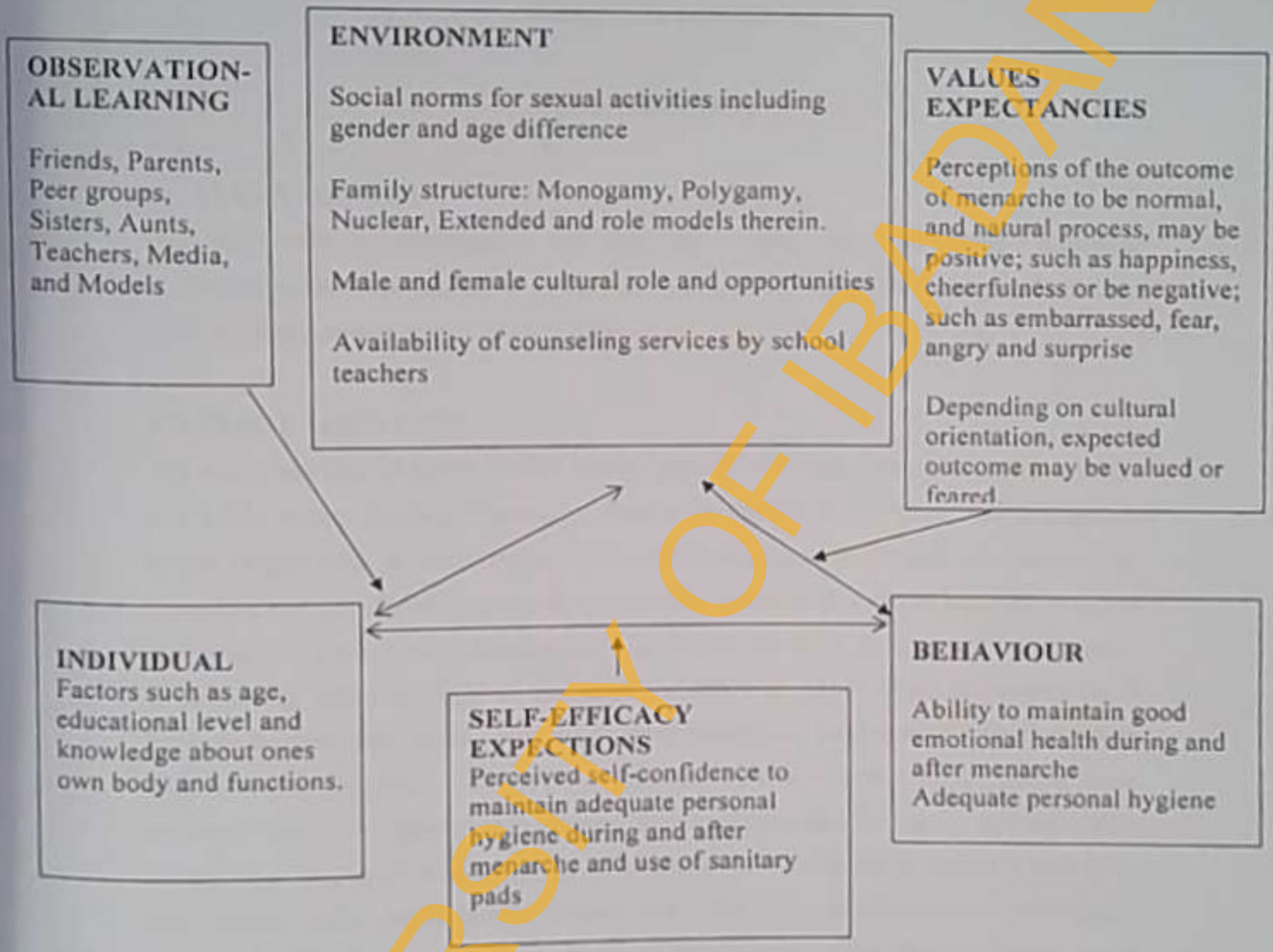
the things involved during menstruation so that the onset of menstruation will not come with negative emotions and feelings, so as to be able to equip herself with the changes that occur from adolescent to adulthood.

In this interaction between the individual and the environment Bandura argues that it is people's beliefs about the world around them that have the most influence on their actions.

At this age, the adolescent girl is into exploration; whatever she learns at this point may shape or mar her. That is why the mother, the school (Teachers), Elder Sisters and Friends has a lot to play at this stage of her life. Beliefs, according to Bandura, are "An individual's representation of reality that has enough personal validity and credibility to guide behavior and thought".

Beliefs affect human perception, interpretation and behavior and therefore are the source of motivation. According to the theory, an important influence on beliefs is through observing the actions of others, a process known as modeling. Self-efficacy was also introduced: belief in one's capabilities to organize and execute the sources of action required to manage prospective situations. With adequate information given to the adolescent girls on the onset of menstruation, most of the negative experiences will not be felt like being unhappy, embarrassed and even shocked.

SOCIAL LEARNING THEORY APPLIED TO THE EXPERIENCES OF MENARCHE



(Adopted from Bandura, 1969)

CHAPTER THREE

METHODOLOGY

3.1: STUDY DESIGN

The study was an exploratory and descriptive cross- sectional survey aimed at documenting the experiences of menarche among in-school adolescent girls in Ibadan north local government area of Oyo state.

3.2: STUDY LOCATION

The study was carried out in Ibadan North Local Government Area which is one of the five LGAs within Ibadan, Metropolis. Ibadan the capital city of Oyo state is regarded as the largest city in West Africa. The metropolis can be divided into inner core, transitory and peripheral community types. The headquarters of the local government is Bodija. As a result of accommodation problems the local government headquarters is temporary accommodated at quarter 87 at GRA at Agodi, were the secretariat is located .Ibadan north local government area consists of twelve administrative wards and forty-one localities. The Local Government Area is made up of people from different social, religious and cultural backgrounds; professionals, artisans, both unemployed and employed. Majority of dwellers are Yoruba while there are also Igbo, Edo, Fulani, Efik, Ibibio among others. The 2006 National Population Commission (NPC) Census figures for Oyo State is 5,591 589 while Ibadan North Local Government Area has a population figure of 306,795 which is made up of 153,039 males and 153,756 females. The Local Government Area is made up of Communities with varied socio-economic classes with some highbrow areas and also some very poor communities.

3.3: STUDY SITE

St Louise grammar school was established by the Catholic Diocese of Ibadan in 1961.Perched on the hillside of Mokola, it is a show piece of structural design, solid construction and human ingenuity."Rev fr. Builder", John Tryvers, S.M.A was the founder. There is an estimated intake of 450 students annually. The school has six academic departments, namely; Arts, Languages, Sciences, Technology, and Home Economics.

Abadina College was founded in 1977 and is situated north-east of the University of Ibadan, in the Ibadan North Local Government Area of Oyo state. It occupies an area of over 11/2 hectares of land and has an estimated population of 3884 students with an estimated annul intake of 450 students. The college has six academic departments, namely; Sciences, Mathematics, Arts, Social Sciences, Modern Languages, and Guidance and Counseling.

Anglican Commercial Grammar School was founded in 1978 and has four Departments namely; Sciences, Social Sciences, Commercial and Arts Departments. It has an estimated intake of 450 students annually.

3.4: SAMPLE SIZE

The formula for calculating the sample size for a simple random sample is given by:

$$N = \frac{Z^2 P.Q}{D^2}$$

Where N = Sample Size you need to collect.

Z = Z values from table of normal curve areas that correspond to the confidence coefficient you choose. The values from the Z table are also known as the reliability coefficient.

P = The proportion you estimate you would find in the target population.

Q = 1 - P

D = Half the width of the confidence interval you choose.

For the Z values, assuming 95% confidence level, this corresponds to a value of 1.96 on the Z table, we can also safely assume that P is 0.5 since the proportion of adolescent girls menstruating in JSS 2 and SS1 and SS2 in the target population is not known.

If P is 0.5, then Q = 1 - 0.5, thus Q = 0.5. For D, since we want a 95% probability that the target population proportion will be within ± 5% of the proportion in your sample. The calculation of N is then as follows:

$$N = \frac{(1.96)^2 \times 0.5 \times 0.5}{(0.05)^2}$$

$$= 3.8416 \times 0.25 / 0.0025$$

$$= 0.9604 / 0.025$$

N = 384.16. The sample size will be approximated to 400 to make room for attrition of the respondents.

(Adapted from Araoye, 2003).

3.5: SAMPLING TECHNIQUE

A two-stage random sampling technique was used for the study. In the Government Secondary School, one girls school only and two out of 23 co-educational schools were randomly selected. In each of the three schools selected, three classes JS 2 (Junior Secondary), SS1 and SS2 (Senior Secondary) were involved and systematic random sampling method was used to select students from each class for the study. The sample thus consists of 400 students. See Table 3:5:1 and Table 3:5:2 for the proportionate distribution of the respondents.

Also Purposive sampling technique otherwise known as Judgmental sampling technique was used to select the subjects of this study. This is because the JSS1 was considered to be too young for the study while JSS3 and SS3 were writing their Junior secondary school certificate examination (JSSCE) and Senior School certificate Examination (SSCE) respectively. Therefore JSS2, SS1 and SS2 were selected. Thus purposive sampling technique was used to select 400 students from the sampled secondary schools in Ibadan North LGA Oyo State.

Table 3:5:1 Proportionate distribution of respondents in JSS class among selected schools.

S/N	SELECTED SCHOOLS	POPULATION OF JSS CLASS SELECTED			STUDY SAMPLE
		BOYS	GIRLS	TOTAL	
1	ST Louise grammar school.	-	450	450	90
2	Anglican commercial grammar school.	250	200	450	40
	Total	250	650	900	130

- There were 7 arms in Junior Girls Schools only, 3 arms were randomly selected comprising of 450 students and from which 90 students were randomly selected.
- There were 6 arms in junior co-educational schools, 2 arms were randomly selected comprising of 250 students and from which 40 students were randomly selected.

Class register was used to randomly select the 130 participants in the junior schools.

Table 3:5:2 Proportionate distribution of respondents in SS class among selected schools.

	SELECTED SCHOOLS	POPULATION OF SS CLASS SELECTED			STUDY SAMPLE
		BOYS	GIRLS	TOTAL	
1	St Louise grammar school.	-	534	534	146
2	Anglican commercial grammar school.	388	250	638	74
3	Abadina college.	325	180	505	50
	Total	713	964	1777	270

* There were 6 arms each in the senior secondary schools, 2 arms were randomly selected in SS1 in each of the schools, 2 arms were also randomly selected in the SS2 in each of the schools.

Class register were used to randomly select the 270 participants in the senior classes.

3.6: ADMINISTRATION OF THE QUESTIONNAIRE

This was carried out within a period of two (2) weeks in the schools selected for the study. The respondents selected from the arms of each school were gathered together in the school hall and questionnaires were administered to them. Both oral and written Informed consent was sort from the respondents. Two research assistants (females) were employed for data collection. The research assistants were given adequate training. Before administration of the questionnaires, each questionnaire was serially numbered to ensure identification and correct coding during analysis of data. The investigator was involved to reinforce standards.

3.7: INSTRUMENT FOR DATA COLLECTION

This study employed quantitative method which involved the self administration of a semi-structured questionnaire for the target group. The questionnaire contains four (4) sections; the socio-demographic characteristics, perception about menstruation, source of information, and the experiences of the emergence of first menstruation among the adolescent girls.

3.8: VALIDITY AND RELIABILITY OF INSTRUMENT

Validity is described as the ability of an instrument to measure what it is expected to measure. It refers to the extent to which a study, answers the research questions and the findings are accurate or reflect the underlying purpose of the study while reliability describes the accuracy or precision of a research-measuring instrument. The objective opinion of fellow students, supervisors and experts in the department of health promotion and education was sought to find out the face and content validity of the instrument.

The instrument was pretested in a class of a different secondary school (Ibadan North West Local Government Area) to determine how effective the developed instrument

* There were 6 arms each in the senior secondary schools, 2 arms were randomly selected in SS1 in each of the schools, 2 arms were also randomly selected in the SS2 in each of the schools.

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3.8: VALIDITY AND RELIABILITY OF INSTRUMENT

Validity is described as the ability of an instrument to measure what it is expected to measure. It refers to the extent to which a study, answers the research questions and the findings are accurate or reflect the underlying purpose of the study while reliability describes the accuracy or precision of a research-measuring instrument. The objective opinion of fellow students, supervisors and experts in the department of health promotion and education was sought to find out the face and content validity of the instrument.

The instrument was pretested in a class of a different secondary school (Ibadan North West Local Government Area) to determine how effective the developed instrument

will be in collecting appropriate data relevant to the research objectives. After the pretest some corrections were effected on the questionnaire mainly on grammar for easy understanding of the questions. A correlation coefficient of 0.064 was gotten after the pretested instrument was analyzed which was interpreted as being reliable.

3.9: LIMITATION OF THE STUDY

It is pertinent to note that there were factors which limited these study, they were as follows;

3.9.1: SIZE OF THE TARGET; The study was conducted using three schools within Ibadan North Local Government Area. Therefore the findings apply to the entire students' population in Ibadan North local Government Area and cannot be generalized to students in Ibadan Metropolis.

3.9.2: SETTING; The environment used for the research work was an entire Yoruba dominated area (Ibadan, Oyo state) and within this Ibadan, only one local government area (Ibadan North) was used out of the entire number of local governments.

3.10: DATA ANALYSIS

The data obtained from questionnaires was sorted out, edited and coded manually by the researcher. Analyses were carried out using SPSS version 11.0. The results were cross tabulated using the chi-square test to determine the relationship between some of the variables. The data were organized into tables to give a clearer pictorial view of the relationship between the variables and charts for illustrations.

3.11: ETHICAL CONSIDERATIONS

Permission was sought from the authorities: the Ministry of Education via the local inspector of education of the local government area of the selected schools of study. This permission was given by making first entry into the selected schools of study with letters of introduction and assistance from the administrative heads of the schools informing them of the intension to use the schools as study site for the research. Verbal informed consent was also sought from each adolescent. Participants involved in the study accepted to participate voluntary and confidentiality of the information collected from participants was assured. (See appendix 2 for consent form).

CHAPTER FOUR

RESULTS

4.1: Socio- demographic features of the respondents

A total of four hundred students in the study site were interviewed. Out of this number 62 (15.5%) of the respondents were between the ages of 9-12 years old, (56.0%) were 13-15 years old, (27.0%) were 16-18 years old, and (1.5%) were 19-21 years old. (32.3%) of the respondents were in JSS 2 class, (30.0%) were in SS1 class, and (37.7%) were in SS2 class. Three hundred and eleven (77.8%) were Christians and (22.3%) were Moslems. The distribution of the respondents by ethnic group showed that majority of the respondents 325(81.3%) belonged to the Yoruba tribe, (12.3%) belonged to the Igbo tribe, (2.3%) belonged to the Hausa tribe while (4.3%) belonged to Delta, Edo and Cross River State.

TABLE 4.1: SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

N=400

		FREQUENCY(n)	PERCENTAGE (%)
AGE:	9 -12	62	15.5
	13 -15	224	56.0
	16-18	108	27.0
	19-21	6	1.5
RELIGION: Christianity		311	77.8
Islam		89	22.3
EHTNIC GROUP: Yoruba		325	81.3
Igbo		49	12.3
Hausa		9	2.3
Others specify		17	4.3
RESPONDENT CLASS:	JSS 2	130	32.3
	SS 1	120	30.0
	SS 2	150	37.7

Mean age = 13.9_+ 2.0 years.

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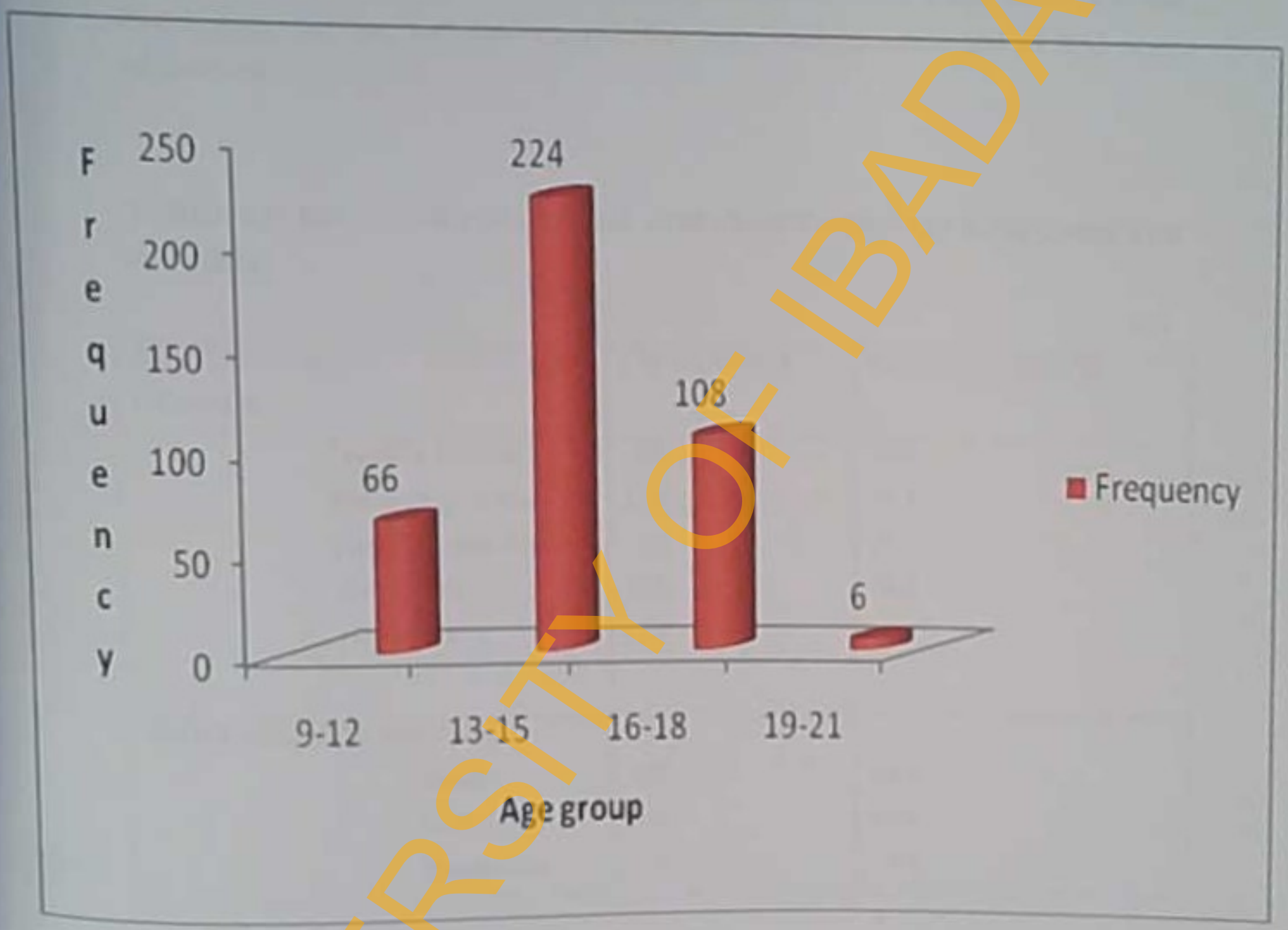
	SS 1	120	30.0
	SS 2	150	37.7

Mean age = 13.9_+ 2.0 years.

Fig 1: **Age Distribution of Respondents**



Among the 400 respondents their mothers' educational background where as follows: (6.3%) of their mothers had primary school education, (39.5%) had secondary education, (19.0%) had tertiary education, (28.0%) had university education and (7.3%) did not attend any education. Two hundred and twenty seven (56.8%) of the respondents' mother was traders, (35.5%) were civil servants and (7.8%) were housewives.

TABLE 4.2: EDUCATIONAL LEVEL AND PROFESSION OF RESPONDENTS MOTHER

N= 400

EDUCATIONAL LEVEL OF MOTHER:	FREQUENCY	PERCENTAGE (%)
Primary School	25	6.3
Secondary School	158	39.5
Tertiary institution	76	19.0
University	112	28.0
Not at all	29	7.3
PROFESSION OF MOTHER:		
Trader	227	56.8
Civil servant	142	35.5
Housewife	31	7.8

4.2: Sources of information about menstruation

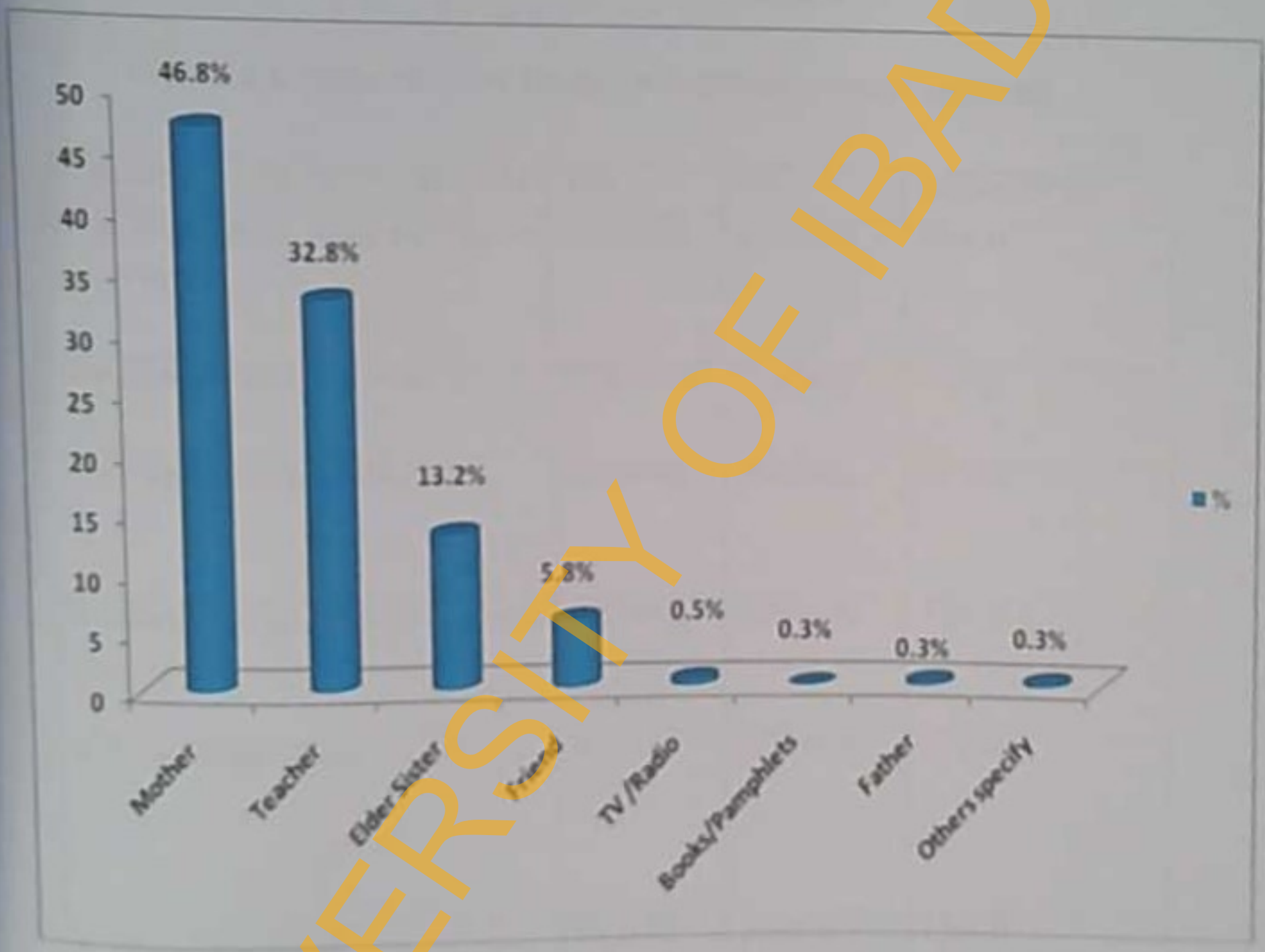
In table four, out of the Three hundred and seventy eight (94.5%) that were aware about menstruation (0.3%) of the respondents received their information on menstruation from their father, (46.8%) from their mother, (13.2%) from their elder sister, (5.8%) from their friend, (32.8%) from their teacher, (0.3%) from book/pamphlets, (0.5%) from TV/Radio, and (0.3%) others which includes grandmother

TABLE 4.3: RESPONDENTS SOURCES OF INFORMATION ABOUT MENSTRUATION

N=378

SOURCES OF INFORMATION	FREQUENCY(N)	PERCENTAGE (%)
Mother	177	46.8
Teacher	124	32.8
Elder Sister	50	13.2
Friend	22	5.8
TV /Radio	2	0.5
Books/Pamphlets	1	0 .3
Father	1	0.3
Others specify	1	0.3
Total	378	100.0

Fig 2: **Respondents' Sources of information about Menstruation**



4.3: Perception of respondents about menses

Table five illustrates multiple responses by respondents to question on perception about menses in which 36.8% perceived menstruation as a sign of womanhood, 26.3% as a possibility of being pregnant if they had sex, 13.3% as being normal, 55.5% as blood flow from their vagina every month, 5.3% do not really know, 17.8% as a sign of grown up and 39.5% as a natural process in every girl.

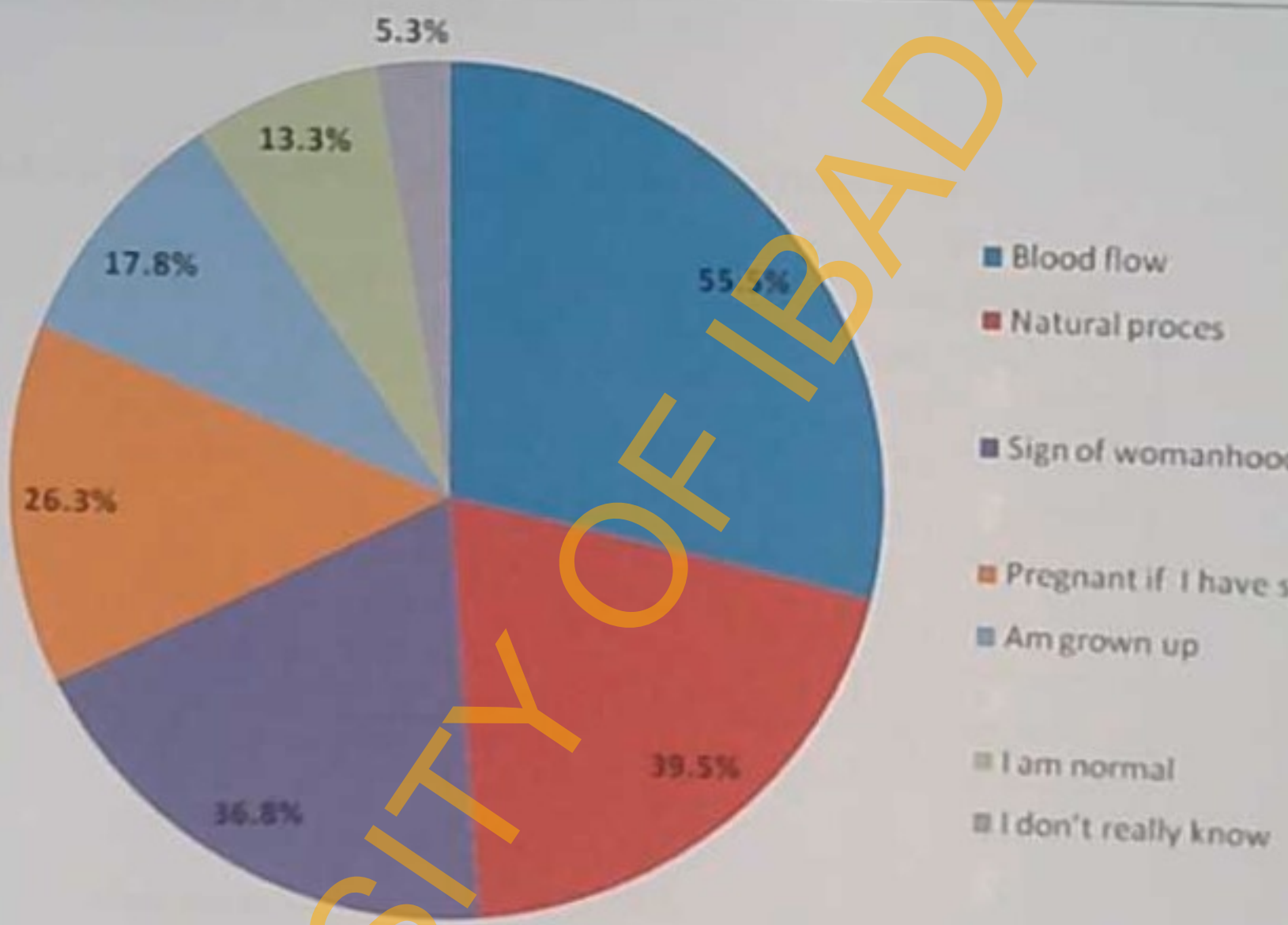
TABLE 4.4: PERCEPTION OF RESPONDENTS ABOUT MENSES

N=400

PERCEPTION OF RESPONDENTS	YES	NO	NO ANSWER
It is blood flow from my vagina Every month:	222(55.5)	161(40.3)	17(4.3)
It is a natural process in every girl:	158(39.5)	225(56.3)	17(4.3)
It is a sign of womanhood;	147(36.8)	236(59.0)	17(4.3)
It shows I can be pregnant if I have sex;	105(26.3)	278(69.5)	17(4.3)
It shows am grown up:	71(17.8)	312(78.0)	17 (4.3)
It shows I am normal;	53(13.3)	330(82.5)	17(4.3)
I don't really know;	21(5.3)	362(90.5)	17(4.3)

*MULTIPLE RESPONSES

Fig 3: **Perception of Respondents about Menstruation**



4.4: Age at first menstruation

Out of the three hundred and ten (77.5%) of the respondents that had started menstruating (9.6%) started menstruating at age <10, (19%) at 11 years old, (28.1%) at 12 years old, (23.9%) at 13 years old, (13.5%) at 14 years old and (5.8%) at >15 years old with the mean age of 12.3 years old.

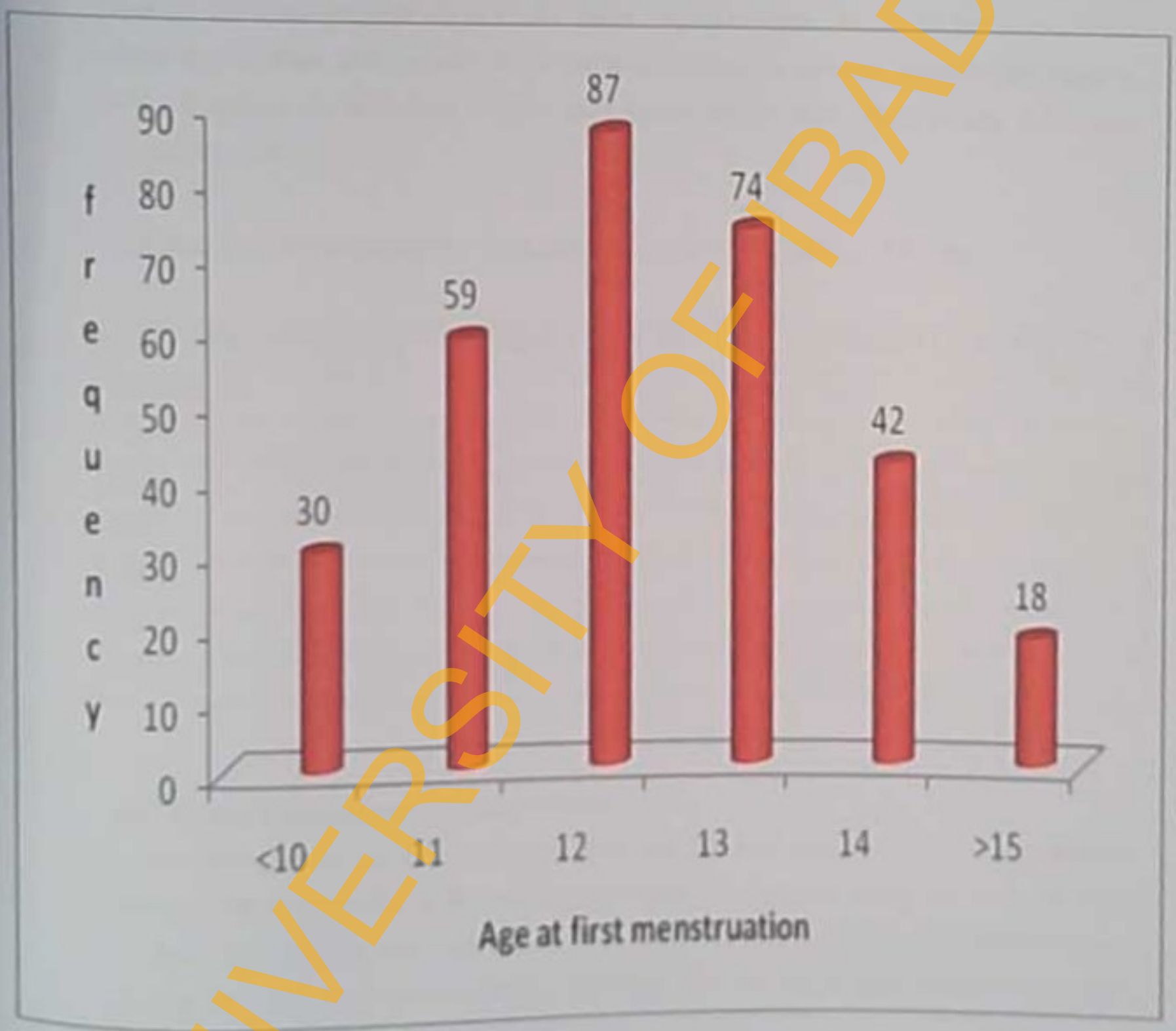
TABLE 4.5: RESPONDENTS' AGE AT FIRST MENSTRUATION

N=310

AGE OF RESPONDENT	FREQUENCY(N)	PERCENTAGE (%)
≤10	30	9.6
11	59	19.0
12	87	28.1
13	74	23.9
14	42	13.5
≥15	18	5.8
Total	310	100

Mean age at menarche= 12.3 +_1.4 years.

Fig 4: **Respondents Age at first menstruation**



4.5: Respondents class at menarche

From the table below, the result indicates that at primary six 5(1.25%) of the respondents had their menarche, at JSS1 (13%) also had their menarche, at JSS2 (25%), at JSS3 (21.7%), at SS1 (13%) and then at SS2 (3.5%) had their menarche. The highest occurrence of menarche took place at JSS 2 class followed by JSS 3. This signifies that at the age of between 12 and 13 years the respondents should have had enough information that should take them into menarche. Some of the respondents experienced their first menstruation while they were in primary school. This implies that education on menarche should start much earlier than when young girls enter secondary school.

TABLE 4.6: RESPONDENTS CLASS AT MENARCHE (N=310)

RESPONDENTS CLASS	FREQUENCY (N)	PERCENTAGE (%)
Primary Six	5	1.25
JSS 1	52	13
JSS2	100	25
JSS3	87	21.75
SS 1	52	13
SS 2	14	3.5
TOTAL	310	100

4.6: Living arrangement of respondents

In the table below, the study showed that two hundred and forty of the respondents (60%) were living with both parents, (2.0%) live with father only, (10.3%) live with mother only, (2.3%) live with senior brother/sister, (1.5%) live in the school hostel, (1.5%) live with their grand parents while (22.5%) did not answer because they have not experienced menarche.

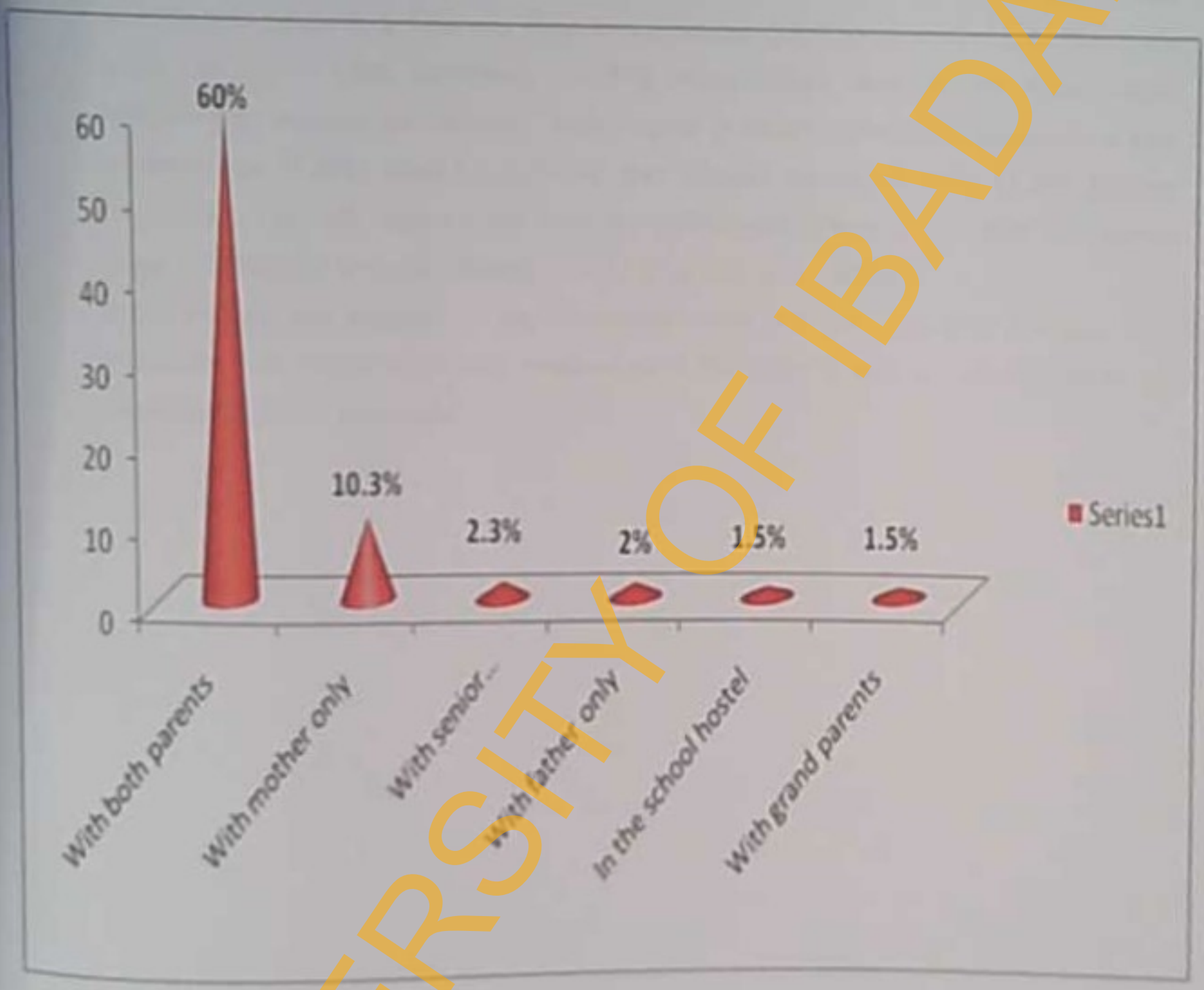
TABLE 4.7: LIVING ARRANGEMENT OF RESPONDENTS

N=400

LIVING ARRANGEMENT	FREQUENCY(N)	PERCENTAGE (%)
With both parents	240	60.0
With mother only	41	10.3
With senior brother/sister	9	2.3
With father only	8	2.0
In the school hostel	6	1.5
With grand parents	6	1.5
*No answer	90	22.5
Total	400	100

*Those that have not started menstruating

Figure 5: **Living arrangement of respondents**



4.7: Respondents experiences about their first menstruation

In table nine, (61.5%) were at home when they first saw their menstruation, (11.3%) was at school, (3.5%) in the church, and (1.3%) were at the market. With respect to the feelings of the respondents at first menstruation (3.3%) of the respondents were embarrassed when they first saw their menstruation, (22.5%) were afraid, (3.3%) were angry, (33.5%) were surprised, (14.5%) were happy and (0.5%) were either indifference, shocked and amazed. With respect to actions taken by respondents at first menstruation (3.3%) cried immediately they noticed the blood stain, (3.5%) hid the blood stain, (20.0%) rushed to the toilet to confirm what it was, (6.3%) told their senior sister, (2.0%) told their best friend and (35.8%) told their mother.

It can be seen that majority of the respondents were at home when they first saw their menarche and results show that mothers were the major source of information to the adolescent girl on menarche.

TABLE 4.8: RESPONDENTS EXPERIENCES ABOUT THEIR FIRST MENSTRUATION

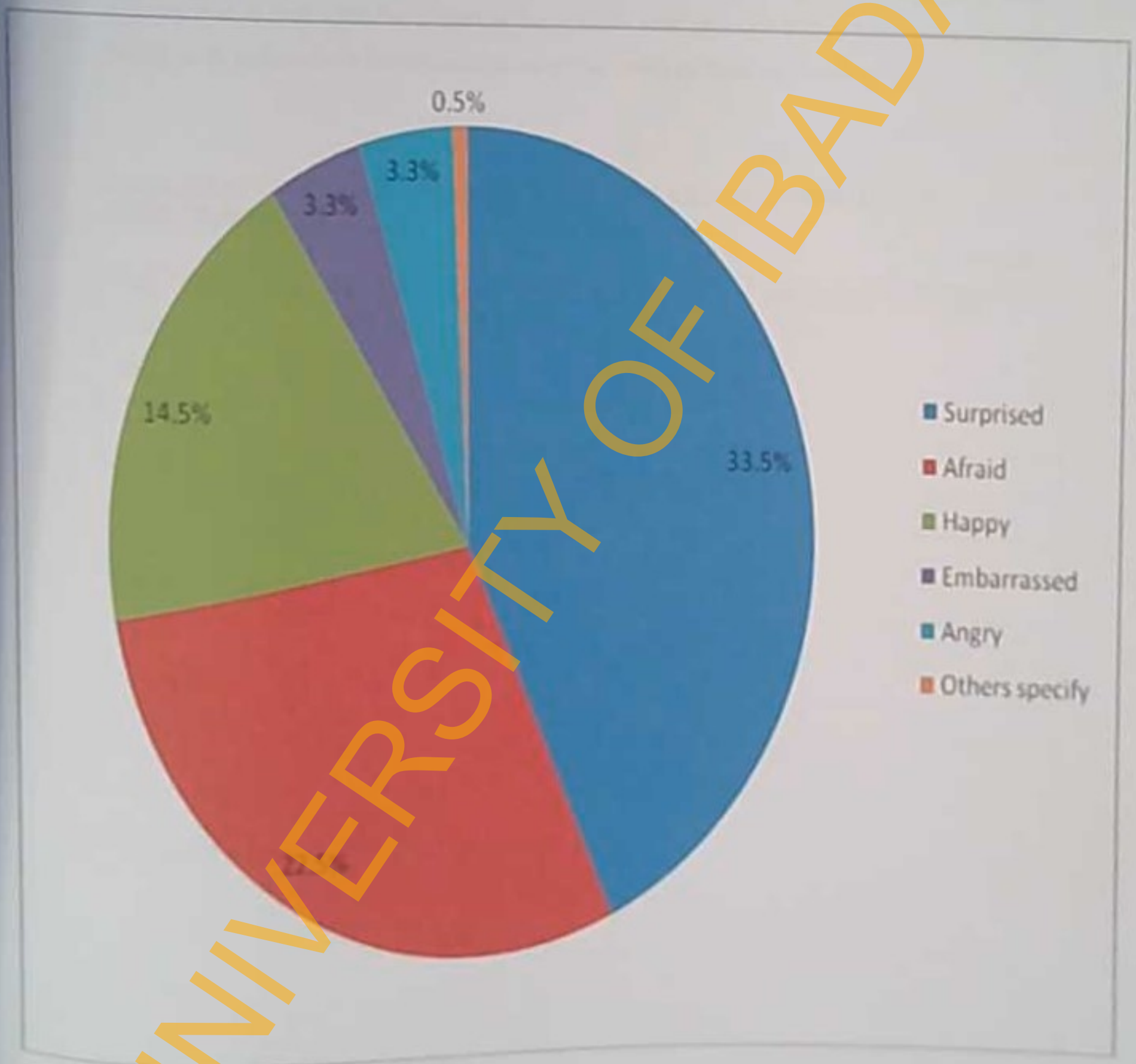
N=400

RESPONDENTS PLACE OF FIRST MENSTRUATION	FREQUENCY(N)	PERCENTAGE %
Home	246	61.5
School	45	11.3
Church	14	3.5
Market	5	1.3
• No answer	90	22.5
RESPONDENTS FEELINGS AT FIRST MENSTRUATION		
Surprised	134	33.5
Afraid	90	22.5
Happy	58	14.5
Embarrassed	13	3.3
Angry	13	3.3
Others specify	2	0.5
• No answer	90	22.5
RESPONDENTS ACTION AT FIRST MENSTRUATION		
Tell your mother	143	35.8
Rush to the toilet to confirm	80	20.0
Tell your senior sister	25	6.3
Hide the blood stain	14	3.5
Crying	13	3.3
Tell your friend	8	2.0
• No answer	90	28.8

*Those that have not really started menstruating

Fig 6:

Respondents Feelings at first Menstruation



4.8: The first person to know about their first menstruation

The first person respondents told about their first menstruation were (0.5%) father, (60.0%) mother, (10.0%) elder sister, (4.3%) friend, (1.3%) teacher, (0.5%) brother, (1.3%) others which includes those that kept it to themselves, they did not tell anybody about it, when they observed their menstruation, they manage it in their own way. Among those that told their father/ brother, it was identified that they were actually living with either their father or brother at the onset of their menarche.

TABLE4.9: THE FIRST PERSON TO KNOW ABOUT THEIR FIRST MENSTRUATION.

N 400

THE FIRST PERSON TO KNOW ABOUT THEIR MENSTRUATION	FREQUENCY(N)	PERCENTAGE (%)
Mother	240	60.0
Elder sister	40	10.0
Friend	17	4.3
Teacher	5	1.3
Others specify	5	1.3
Father	2	0.5
Brother	2	0.5
*No answer	90	22.6
Total	400	100

*Those that have not started menstruating

4.9: Types of information received by the respondents concerning menstruation before experiencing it

The information received by the adolescent girl concerning menstruation were as follows; (9.4%) it is a secret that should not be made known to anybody, (37.1%) Pregnancy could occur following the onset of menstruation if one indulges in sex, (32.6%) one had become a woman, (19.7%) one had grown up and (1.3%) it is normal.

TABLE4.10: TYPES OF INFORMATION RECEIVED BY THE RESPONDENTS CONCERNING MENSTRUATION BEFORE EXPERIENCING IT.

N= 310

TYPES OF INFORMATION RECEIVED	FREQUENCY(N)	PERCENTAGE (%)
Pregnancy could occur following the onset of menstruation if one indulges in sex.	115	37.1
One had become a woman.	101	32.6
One had grown up.	61	19.7
An experience that one should always keep secret.	29	9.4
A normal development in women.	4	1.3
Total	310	100.0

4.10: The first person the adolescent girl would like to tell about menarche

The first person the adolescent girl will like to tell about her menstruation were as follows; (82.5%) mother, (7.3%) elder sister, (0.5%) teacher, (0.8%) father, (0.5%) brother and (0.5%) others. The respondents chose the following persons because of the following reasons; (54.8%) very close to me, (18.0%) trust the person, (18.5%) the person that gave birth to me, (8.0%) no answer and (0.8%) others specify which includes some one that will give them enough information on the issue so that they will not be ashamed.

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TABLE 4.11: THE FIRST PERSON THE ADOLESCENT GIRL WOULD LIKE TO TELL ABOUT HER MENARCHE.

N=400

THE FIRST PERSON THE ADOLESCENT GIRL WOULD TELL	FREQUENCY(N)	PERCENTAGE (%)
Mother	330	82.5
Elder sister	29	7.3
Father	3	0.8
Teacher	2	0.5
Brother	2	0.5
Others specify	2	0.5
No answer	27	6.8
The reason for choosing the person		
Very close to me	219	54.8
The person that gave birth to me	74	18.5
Trust the person	72	18.0
Others specify	3	0.8
No answer	32	8.0
Total	400	100

4.11: Knowledge about what to use for menstruation

Out of the 400 respondents, (91.5%) knew what to use for their menses while (8.5%) did not know what to use. (20.6%) used toilet tissue, (11.8%) used pieces of cloth, (61.8%) used sanitary pad, (0.8%) used tampon and (5.3%) no answer.

The respondents used the materials above because of the following reasons; (13.3%) cheap, (54.3%) given to them by their mother, (10.5%) saw it on the advertisement, (6.3%) read it on books/pamphlets, (4.5%) advised to use it by their best friends and (11.3%) others which include their own personal opinion to use it considering the fact it might be good.

TABLE 4.12: RESPONDENTS KNOWLEDGE ABOUT WHAT TO USE FOR THEIR MENSTRUATION.

N=400

Did you know what to use for your menstruation?	FREQUENCY(N)	PERCENTAGE (%)
Yes	366	91.5
No	34	8.5
<u>What the respondent use to absorb the blood</u>		
Sanitary pad	247	61.8
Toilet tissue	82	20.6
Pieces of cloth	47	11.8
Tampon	3	0 .8
No answer	21	5.3
<u>The reason for using the material:</u>		
My mother gave it to me	217	54.3
It is cheap	53	13.3
my own personal decision to use it	45	11.3
I saw it on the advertisement	42	10.5
I read in books/pamphlets	25	6.3
My friends advised me to use it	18	4.5

4.12: The physical experiences respondents encountered during their first menstruation

In table fourteen, out of the three hundred and ten of the respondents that have experienced menarche thirty seven (9.8%) experienced headache during their first menstruation, (7.7%) experienced cramps, (1%) experienced vomiting, (53.5%) experienced Waist pain while (5.5%) others, which include tiredness, dizziness and weakness. Two hundred and sixteen (54%) took some drugs to overcome the physical challenges, (8.8%) partake in little indoor exercises, (10.8%) did not do anything and (4%) took hot tea.

TABLE 4.13: THE PHYSICAL EXPERIENCES RESPONDENTS ENCOUNTERED DURING THEIR FIRST MENSTRUATION AND HOW THEY OVERCOMED IT.

N=310

Physical experiences encountered during their first menstruation.	FREQUENCY(N)	PERCENTAGE (%)
Waist Pain	214	53.5
Headache	37	9.8
Cramps	31	7.7
Others specify	22	5.5
Vomiting	4	1.0
How the physical challenges was overcome		
Took some drugs	216	54.0
Didn't do anything	43	10.8
Partake in little indoor exercises	35	8.8
Drinking hot tea without sugar	16	4.0

Fig 7: **Physical experiences encountered during menarche**

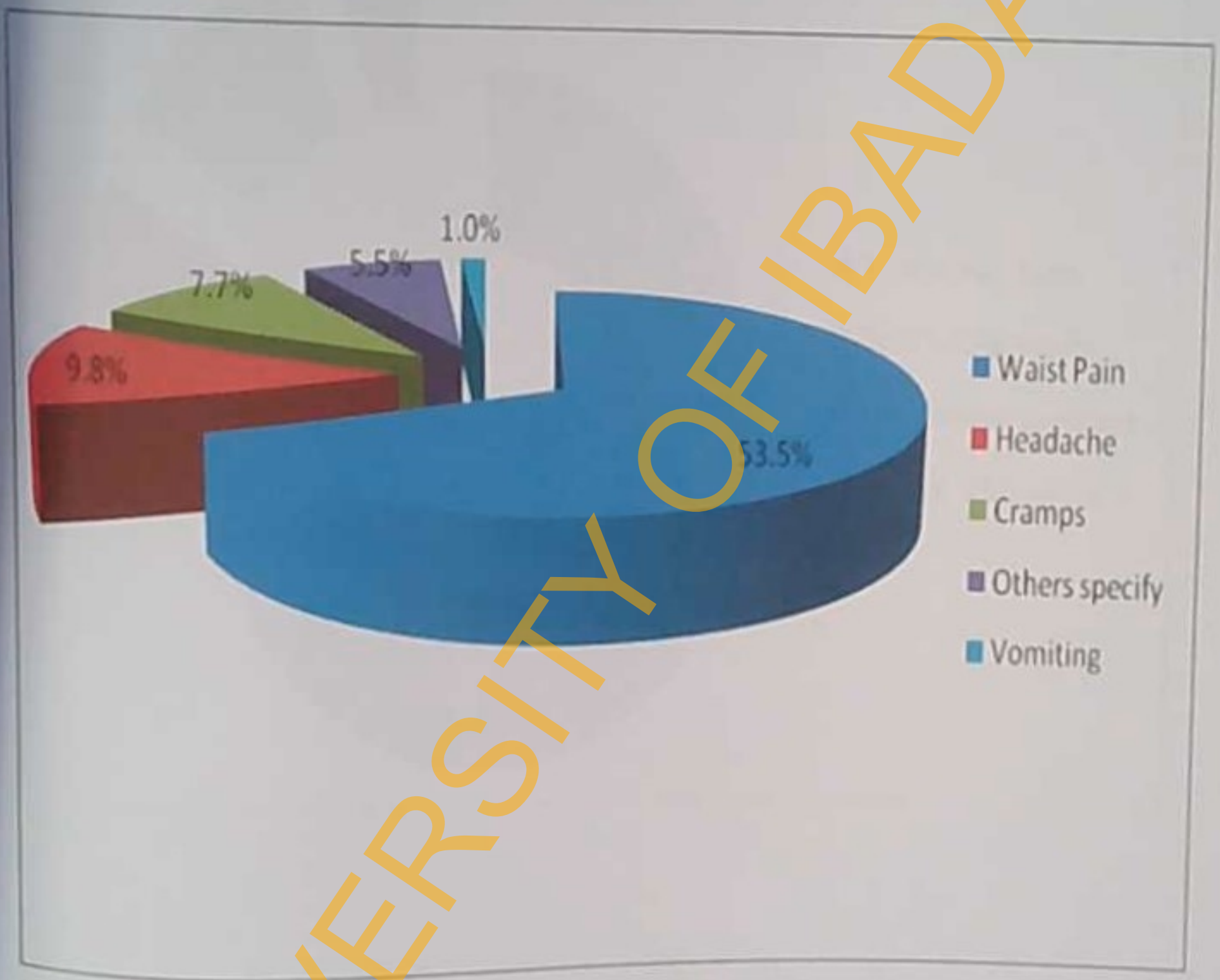
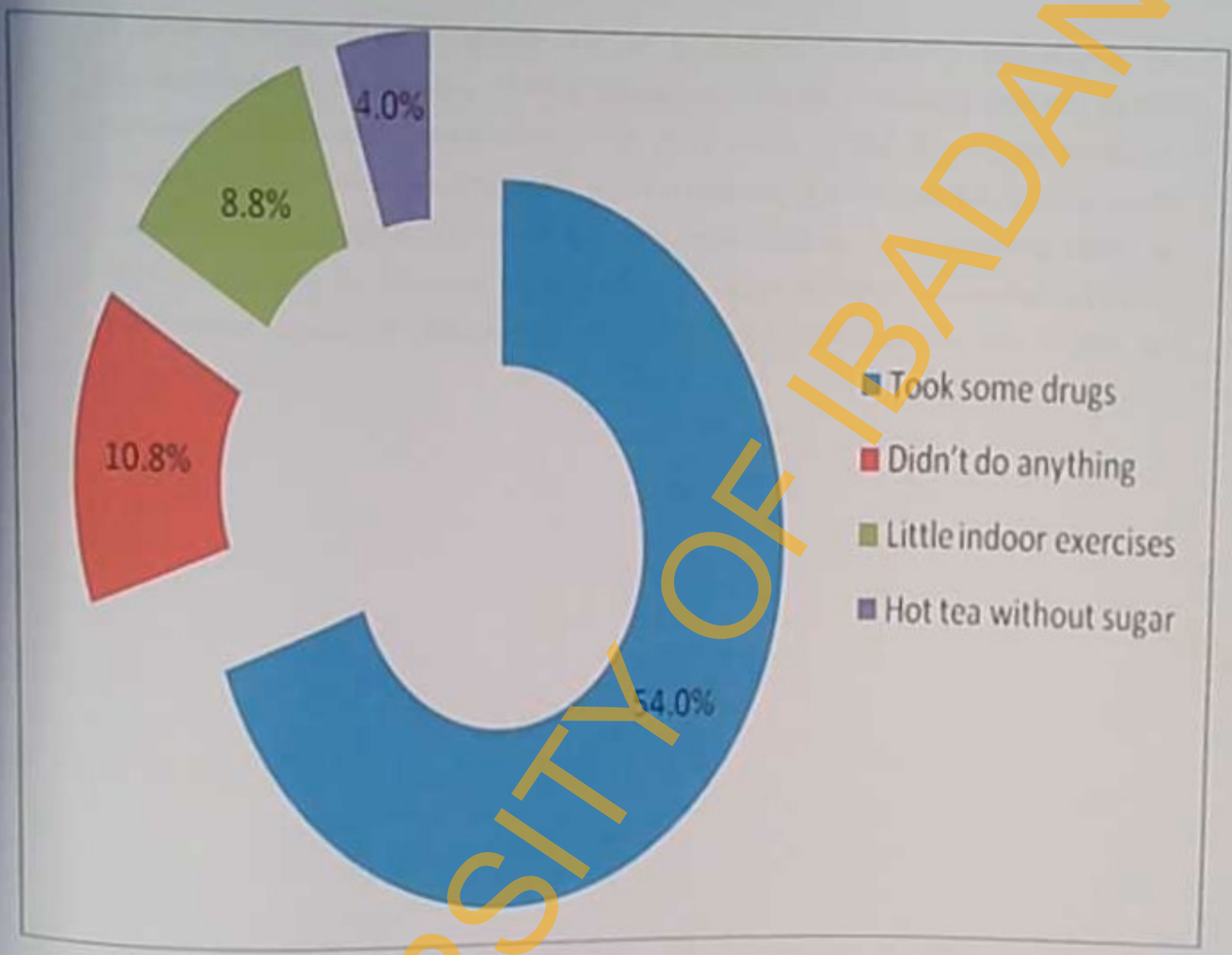


Fig 8: **How the Physical challenges were overcome.**



4.13: Place preferred by respondents to discuss/receive information on menstruation

In table fifteen, (20.8%) prefer TV as a medium to receive information on menstruation, (1.3%) radio, (2.8%) newspaper, (28.8%) books/pamphlets, (44%) personal contacts and (2.6%) others. The place prefer by the respondents to discus menstruation includes; (51.8%) home, (37.3%) school, (1.0%) churches, (8.0%) youth clubs and (2.1%) others. The reasons for the preference by the respondents where as follows; (52.3%) for personal contact, (8.3%) Source Public enlightenment, (17.8%) experienced source of information, (28%) privacy/ confidentiality and (0.8%) no answer.

TABLE 4.14: PLACE PREFERRED BY RESPONDENTS TO DISCUSS/RECEIVE INFORMATION ON MENSTRUATION

N=400

The preferred medium to receive information on menstruation.	FREQUENCY(N)	PERCENTAGE (%)
Personal contacts with mothers/teachers	176	44.0
Books/pamphlets	115	28.8
TV	83	20.8
Newspaper	11	2.8
Radio	5	1.3
Others specify	10	2.6
Place preferred to discuss menstruation		
Home	207	51.8
School	149	37.3
Youth clubs	32	8.0
Church	4	1.0
Others specify	8	2.1
Reason for the preference		
For personal contact with mothers/teachers	209	52.3
Privacy/ Confidentiality	112	28.0
Experiences source of information	43	17.8
Source public enlightenment	33	8.3
No answer	3	.8

4.14: Level of openness of respondents about menarche

Out of the four hundred respondents, (25.5%) of the respondents said they will tell everybody about their menses while majority (75.5%) said they can not tell everybody about their menses. The reasons for such responses were (9.5%) to prevent being embarrassed by the boys, (39.5%) it is personal, (8.0%) to avoid being raped and (18.0%) I am a shy person.

TABLE 4.15: LEVEL OF OPENESS OF RESPONDENTS ABOUT MENARCHE

N=400

Could you tell everybody about your first menses (menarche)?	FREQUENCY (N)	PERCENTAGE (%)
Yes	100	25.5
No	300	75.5
Total	400	100.0
Reason respondents gave for not being open		N=300
It is personal	158	39.5
I am a shy person	72	18.0
To prevent being embarrassed by the boys	38	9.5
To avoid being raped	32	8.0
Total	300	100

4.15: What the respondents wish to know about menstruation

In table seventeen, (8.3%) of the adolescent girls will like to know what causes delay in some girls seeing their menarche, (38.8%) avoidance of pains during menstruation, (39.5%) basic knowledge about menstruation, (4.8%) what are the causes of irregularity in menses and (8.8%) why delay of menses during the month.

TABLE4.16: WHAT THE RESPONDENTS WISH TO KNOW ABOUT MENSTRUATION.

N=400

WHAT RESPONDENTS WISH TO KNOW ABOUT MENSTRUATION	FREQUENCY(N)	PERCENTAGE (%)
Basic knowledge about menstruation	158	39.5
What can one do to avoid having pains during menstruation?	155	38.8
Why delay of menses during the month	35	8.8
Why is it that some girls had delay in seeing their menarche?	33	8.3
What are the causes of irregularity in menses	19	4.8
Total	400	100

4.16: The distribution of respondents experiences with their age group

The result below shows that within the age group 9-12 years (57.1%) had negative/unpleasant feelings at menarche. These unpleasant feelings include surprised, embarrassed, angry and afraid. Within the age group of 13- 17 years (42.9%) also had negative/unpleasant feelings at menarche. The number that had pleasant feelings is so insignificant in both the age groups. Ordinarily this is not how it is suppose to be, onset of menstruation should call for celebration, cheerfulness and happiness but because of lack of information and inadequate preparedness for its arrival, the adolescent girls are faces with so many unpleasant experiences. There was no significant difference in the proportion of participants within the 9 -12-years (57.1%) and 13 – 17 years (42.9%) age groups that had unpleasant experiences at menarche.

TABLE 4.17: THE DISTRIBUTION OF RESPONDENTS EXPERIENCES WITH THEIR AGE GROUP.

AGE GROUP (Years)	EXPERIENCES		TOTAL	PERCENTAGE
	Pleasant	Unpleasant		
9 – 12	33	144	177	57.1
13 - 17	25	108	133	42.9
TOTAL	58	252	310	100.0

CHAPTER FIVE

DISCUSSION

5.0: Discussion

Findings from the study were discussed in this chapter. It is organized into the following sub-sections. Socio – demographic information, age at first menstruation, sources of information about menstruation, perception of the respondents about first menstruation, experience about first menstruation and implication for health promotion and education and social policy.

5.1 Socio – Demographic Characteristics of the respondents

The mean age of the participants was 13.9 years. This indicates that it is really a young population which is made up of age range of 9 – 21 years. This is the range at which, adolescent girls can experience menarche. The mean age of the respondents' first menstruation was 12.3 years.

Majority of the respondents experienced their menarche at 12 and 13 years old. This finding is within the same range with reports of Bech, (2005) 12.5years old, Etuk,et al(2004) 12.86 years old, Zuckerman, (2001) 12 years old and Paikoff et al, (1991) 12.5 years old. Out of the four hundred respondents interviewed, none of them experienced menarche as early as 8 years old as opined by Golub et al (1983).

This disparity at the age of menarche may be as a result of the cultural background, environmental factors and health status which include nutrition, hereditary, body mass of the adolescent girl. Family conflict and stress was also an indicator for early menarche (Steinberg, 1987). At this time when stress is found in every household that means that the age of menarche will continue to be on the decline, maybe by the year 2020 the age of menarche will decline to 9 years old.

Majority (81.3%) of the respondents were of Yoruba origin. This might be because the study was conducted in Oyo State which is a Yoruba dominated state in Nigeria.
It was observed that about (1.25%) of the respondents had started their menstruation in primary six, this indicates that menarche can start at age earlier than 12 years, hence adequate measures should be taken to safeguard the emotional stability of the youngsters a little earlier than 12 years old.

5.2 Sources of Information about menstruation

Mothers were the major sources of information on menstruation. This conform with the position of Novak (1921) that no one can quite take the place of the mother in instructing her daughter in the simple and beautiful truths of the reproductive life and its various manifestations. Also Hake (1972) in a study conducted among 6th grade students reported that mothers were listed as the main source of information in sexual matters. Furthermore, Bech (2005), Tortumluoglu, et al (2005) and Gray (1990) confirmed the influence of mothers as educators in sexual issues. However mothers find it much easier to talk with their daughters about conception, pregnancy and birth.

This finding is contrary to the findings of Demehin (1993) that young people nowadays rely mostly on peer information or erotic movies and publications. While he opined that the only avenue left open to teach sexuality education is through the school system. Some respondents preferred their teachers and felt that it is a personal issue that can only be discussed with someone they trust outside their family members. Probably they believe that teachers have information about menstruation and because she trusts the teacher will not reveal such information to anybody, they will want to talk to a female teacher because she must have passed through similar experience. This is in line with Bandura, (1969) in which he stated that friends, sisters, mothers and teachers play a role to educate the adolescent girl on the emergence of menarche.

Majority said their source of information about menarche is their mother. Out of the four hundred respondents 2% reported that their source of information was their father, this implies that fathers equally have some role to play in their girl child experience of

menarche. This is in line with the finding of Brooks-Gun and Ruble (1982) that learning about menstruation from male source was viewed as negative.

It should be noted that at this era of globalization, fathers should come into the limelight of girl-child education. There are some fathers that are educated who should be integrated into the biological and psychosocial aspect of their daughters menarcheal wellbeing.

Majority (61.8%) of the respondents used sanitary pad for their menstruation and 54.3% of the respondents reported that their mother gave it to them. This finding is in line with Zuckerman, 2001 who opined that the mass media has made it publicly through advertisement, the need for the use of sanitary pads during menstruation, its hygienic effects and easy to use. This implies a measure of sanitary hygiene among the adolescent girls, but it is still disheartening to know that 11.8% of the respondent is still using pieces of cloth for their menstruation even at this era of global modernization.

5.3 Perception of the respondent about menarche

The way an adolescent girl will perceive menarche will depend on the information she received concerning menstruation. In the study majority of the respondents perceived menstruation simply as blood flow from their vagina every month, which they considered as a natural process and the information the adolescent girl received at menarche implies that she should be very careful else pregnancy occurs. Menstruation was perceived as a taboo in which it should not be made known to anybody. This is in agreement with Bandura, (1969) on value expectancies that the adolescent girls perceived menstruation as a natural process and that which must be kept secret. These are the reasons why the respondents preferred menstruation to be discussed at home and for personal contact. This is in conformity with Beausang, (2000), in a study conducted in the Western societies in which girls upon the onset of menstruation were advised to keep it secret.

In some western societies girls are really congratulated on their entrance into woman hood for example in India it is elaborated in a very grand fashion, particularly in Southern India, a girl's first menstruation is a matter of great joy to the community.

5.4 Experiences about first menstruation

The emotions of the respondents at the onset of menarche were negative. Their feelings show that majority were surprised, probably because they where not expecting it at the place and time it happened and besides it was their first experience. Noticing their first menstruation in a public place for example in the church, market and school may bring about surprise, embarrassment and anger. Hiding the blood stain could mean that they where in a public place when they noticed their first menstruation.

Majority of the respondents saw their first menstruation at home, which gave them the opportunity to tell their mother and elder sister. Probably that was the reason they rushed to the toilet to confirm what they felt. Some adolescent girls may be embarrassed, afraid, angry and surprised while some were happy and cheerful at the onset of their first menstruation. This agrees with Tang et al (2003) in a study conducted in Hong Kong, China. He reported that 72%-86% felt annoyed, embarrassed, surprised, worried, scared or confused about their first menstruation, 34%-37% felt angry or sick while only a small percentage 14%-23% felt happy, proud or excited by their experiences. These feelings may be as a result of cultural differences. According to Bandura, (1969) in which the adolescent girls where filled with negative emotional experiences, they will be able to exhibit the ability to maintain good emotional health during and after menarche. It should be noted that all these feelings are normal experiences. This agrees with Adegoke, (2001) in a study conducted in Ilorin, Nigeria which indicated that the pubertal experience could be anxiety provoking and could bring disappointment, depression, embarrassment and fear of blood showing on their clothing.

Majority of the respondents experienced waist pain during their first menstruation and headache, all this feelings are normal which where however overcome by taking some drugs. This is in agreement with Bandura, (1969) that the value expected may be

negative or positive, which implies surprised, embarrassed, afraid or angry and positive as in happiness and cheerfulness.

5.5: living Arrangement of the respondent

Environment plays vital role in the experiences of menarche among adolescent girls. The person she lives with at the onset of menstruation will determine the type of information she get at menarche. The study shows that majority of the respondents (60%) lives with both parents, for the fact they lives with their parents should be a determinant that all the information required for the adolescent girl on her menarche should be adequately and promptly given.

Data shows that the information the respondents got where inadequate. This is in line with Uche and Osaghae, (2001) who opined that parent- child communication in sexual matters was non-existent or negative before maturity and at the onset of menstruation.

5.6: Implications for Health Education and Social Policy

Health Education focuses on the modifications of people's behavioral antecedents (WHO, 1998, Green and Kreuter, 1991) It is concerned with helping people develop practices that ensure their best possible well -being (WHO, 1998). Health Education principles and strategies can be used to address some of the challenges identified in this study.

It was identified that the mean age at which adolescent girls start to menstruate was 12.3 years. This signifies that before the age of 12.5 years maybe as from 9years old the adolescent girl should be adequately informed about the onset of menstruation by their mothers/elder sisters and through the school system. The mean age also indicates that mothers will be able to know at what age they will be expecting their adolescent girls to start menstruating in order to prepare them.

The study identified mothers as the major source of information to their growing girls on onset of menstruation. There is therefore an urgent need to sensitize mothers on the

importance of educating and enlightening their daughters to the issue of menarche, these sensitization could be in form of organizing health talks by Health practitioners' for mothers probably during clinic visits also during PTA meetings and NGO outlets.

5.7 Conclusion

The findings of this study have revealed the following:

1. Adolescent girls reach their menarche at an early age.
2. The emotional feelings were both negative and positive; actions taken will depend on where menarche occurred.
3. The source of information is usually their mothers and those that were very close to them whom they trust.
4. Majority of the adolescent girls used sanitary pads during their menses.

5.8 Recommendations

1. Adolescent girls should be exposed to menarcheal education prior to onset, probably during their senior class in primary school.
2. Participation, contribution and education (Public enlightenment) of the adolescent girl's mother and Teachers should be encouraged as it cannot be assumed that all mothers/teachers hold positive attitudes towards menstruation.
3. Life skills education should be promoted right from the primary schools also School Health education should be enhanced/ strengthened in the secondary schools.
4. Mothers should be educated during the School Parent- Teacher Association's meetings (PTA) on the need for proper and adequate information on menarche.
5. Non-Governmental Organizations should be encouraged to develop IEC materials which will focus on the issue of menarche and menstruation in order to address the fears and misconceptions of the adolescent girls.

5.9. Suggestions for further studies

1. A comparative study on the experiences of menarche on the public and private secondary schools.
2. A comparative study on the experiences of menarche between in- school adolescent and out-of school adolescents.
3. How does hereditary, health, nutrition and body mass affects the age at menarche?

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APPENDIX 1

QUESTIONNAIRE

EXPERIENCES OF MENARCHE AMONG SECONDARY SCHOOL GIRLS IN IBADAN NORTH LOCAL GOVERNMENT AREA, NIGERIA

INTRODUCTION: Compliment of the season. My name is **Ezioma P. Onu**, a research student from the above named institution. The purpose of the present research primarily is to fulfill partial conditions for the award of the Degree of Master of Public Health in Health Promotion and Education of the University of Ibadan. I am carrying out a study among adolescent girls and i will very much appreciate your participation. This study is designed to identify the experiences of menarche among secondary school girls while taking cognizance of the implication to reproductive health and lifestyles. Participation in this study is voluntary and absolute confidentiality shall be maintained for any information collected in this study. Thank you.

GENERAL INFORMATION

1. Date of interview.....
2. Place of interview.....
3. Serial Number.....

SECTION A - SOCIO-DEMOGRAPHIC INFORMATION

Please circle any option of your choice.

1. Religion of the respondent:
   (1) Christianity (2) Islam (3) Traditional (4) Others specify..... ☐
2. Ethnic group you belong to:
   (1)Yoruba (2) Igbo (3) Hausa (4) others specify..... ☐
3. Education level of mother:
   (1)Primary school (2) Secondary school (3) Tertiary Institution (4)University
   (5) Not at all. ☐
4. Profession of mother:
   (1) Trader (2) Civil servant (3) Housewife ☐
5. How old are you? ..... Date of birth..... ☐
6. What class are you?
   (1) JSS2 (2) SS1 (3) SS2 ☐

SECTION B: PERCEPTION OF MENSTRUATION

7. Have you heard about menstruation before you started menstruating?

(1) Yes (2) No

8. If yes to question 7 above from what source did you hear about menstruation?

(1)Father (2) Mother (3) Elder Sister (4) Best Friend (5) Teacher (6) Books/Pamphlets (7)TV/Radio (8) Newspapers (9) Others Specify.....

9. Do you know what menses is?

(1) Yes (2) No (3) Not sure

10. If yes, to 9 above tick as many of the options (a)-(g) what menses means.

(a)It is an indication that one had become a woman

(b)Pregnancy could occur if one indulges in sex.

(c)It is a normal development in every woman

(d)It is blood flow from the vagina every month

(e)I don't really know

(f)It shows one had grown up

(g)It is a natural process in every girl/woman

SECTION C: EXPERIENCES ON MENSTRUATION

11. Have you started menstruating?

(1) Yes (2) No

12. If yes to question 11 when did you first see your menstruation?

(1) 3 years ago (2)2 years ago (3)A year ago (4)Six months ago (5)others specify.....

13. Who are you living with when you first started menstruating (please tick one)

(1) With both parents

(2) With father only

(3) With mother only

(4) With a friend

(5) With Senior brother/sister

(6) In the school hostel

(7) With grand parents

(8) Others specify.....

14. At what age did you first see your menstruation?

Please indicate..... ☐

15Where were you when you noticed your first menstruation?

(1)Home (2) School (3)Church (4)Market (5)Party (6)Others ☐

specify.....

16. How did you feel when you first saw your menstruation?

(1) Embarrassed (2) Afraid (3) Angry (4) Surprised (5)Happy (6) Others specify..... ☐

17. What did you do when you first saw your menses?

(1)Crying (2)Hide the Blood stain (3)Rush to the toilet to confirm (4)Tell your senior sister (5)Tell your friend (6) Tell your mother (7)Others specify..... ☐

18. Who was the first person you told about your menstruation?

(1)Father (2) Mother (3) Elder Sister (4) Best Friend (5) Teacher (6) Brother (7) Others specify..... ☐

19. Why did you first tell the person about your first menstruation?

(1)Very close to me (2) Trust the person (3)I don't really know (4)Others specify..... ☐

20. What was the person's feeling when you informed him/her about your menstruation?

(1)Cool (2) Frightened (3) Happy (4) Surprised (5) others specify..... ☐

21. What did the person you told about your menstruation do?

(1) Offered to take me home ☐

(2) Gave me something to dress up ☐

(3) Handed me over to the school prefect ☐

(4) Advised me on what to do immediately ☐

(5) Advised me to go home ☐

(6) Others specify..... ☐

22. What did the person tell you concerning menstruation?

(1) It is a secret that should not be made known to anyone. ☐

(2) Pregnancy could occur if one indulges in sex. ☐

(3) It is an indication that one had become a woman ☐

(4) It signifies one is grown up.

(5) Others specify..... ☐

23. Who will be the first person you will like to tell during your first menstruation?

(1)Mother (2) Elder Sister (3)Teacher (4)Friend (5)Father (6)Brother (7) Others specify..... ☐

24. Why did you choose the person..... ☐

.....

.....

.....

25. Did you know what to use for your menstruation?

(1) Yes (2) No ☐

26. If yes, what did you use when you first saw your menses to absorb the blood?

(1)Toilet Tissue (2) Pieces of Cloth (3) Sanitary pad (4)Tampon (5) Others specify..... ☐

27. Why did you use the material at question 26 above?

(1)It is cheap (2) My mother gave it to me (3)I saw it on the advertisement (4)I read on books/pamphlets (5)My friends advised me to use it (6) Others specify..... ☐

28. Where did you dispose it after using no 26 above?

(1) Toilet (2) Refuse bin (3) Dug ground (4) Bush (5) Others specify..... ☐

29 .Which medium will you prefer to receive information about menstruation from?

(1)TV (2) Radio (3) Newspaper (4)Books/pamphlets (5)Personal Contacts (6) Others specify..... ☐

30. Were will you prefer menstruation to be discussed?

(1)Home (2) School (3) Church (4) Youth Clubs (5) Others specify. ☐

31. Why will you prefer the place chosen at 30 above?

.....

.....

.....

32. Could you tell everybody about it?

(1)Yes (2) No

33. If no to question 32 above why?

1. .....

2.....

3.....

34. Is there any subject so far that you have been taught anything on menstruation?

(1) Yes (2) No

35. If yes to question 34 above which of the subjects?

.....

36. What physical experiences did you have during your first menstruation?

(1)Headache (2) Cramps (3) vomiting (4) Waist Pains (5) others specify.....

37. How long did this last?

(1)A day (2) 2 days (3) 3 days (4) Others specify.....

38. State how you overcome the physical challenges?

1.....

2.....

3.....

39. Briefly describe your experiences since you started menstruating.

.....

.....

.....

40. What do you wish to know about menstruation?

1.....

2.....

3.....

APPENDIX 2

INFORMED CONSENT

Dear Respondent,

My name is Ezioma Onu, a postgraduate student of the University of Ibadan. I am carrying out a research work to find out the experiences of menarche among adolescent girls. The research will be carried out in Ibadan North Local Government Area, Oyo state.

It is intended that the findings will help in developing better ways to prepare adolescent girls adequately before the onset of menarche.

I would like to explain the following to you so that if you understand them, you can participate in the study if you wish to.

- The study is purely for research purposes
- Your participation is completely voluntary
- You will not be required to say/write your name, address or any other identifier
- There will not be any penalty if you refuse to participate
- You can ask any question if you do not understand
- All the information you will supply will be held in strict confidence

If you understand the above and wish to be a participant, kindly let me know.

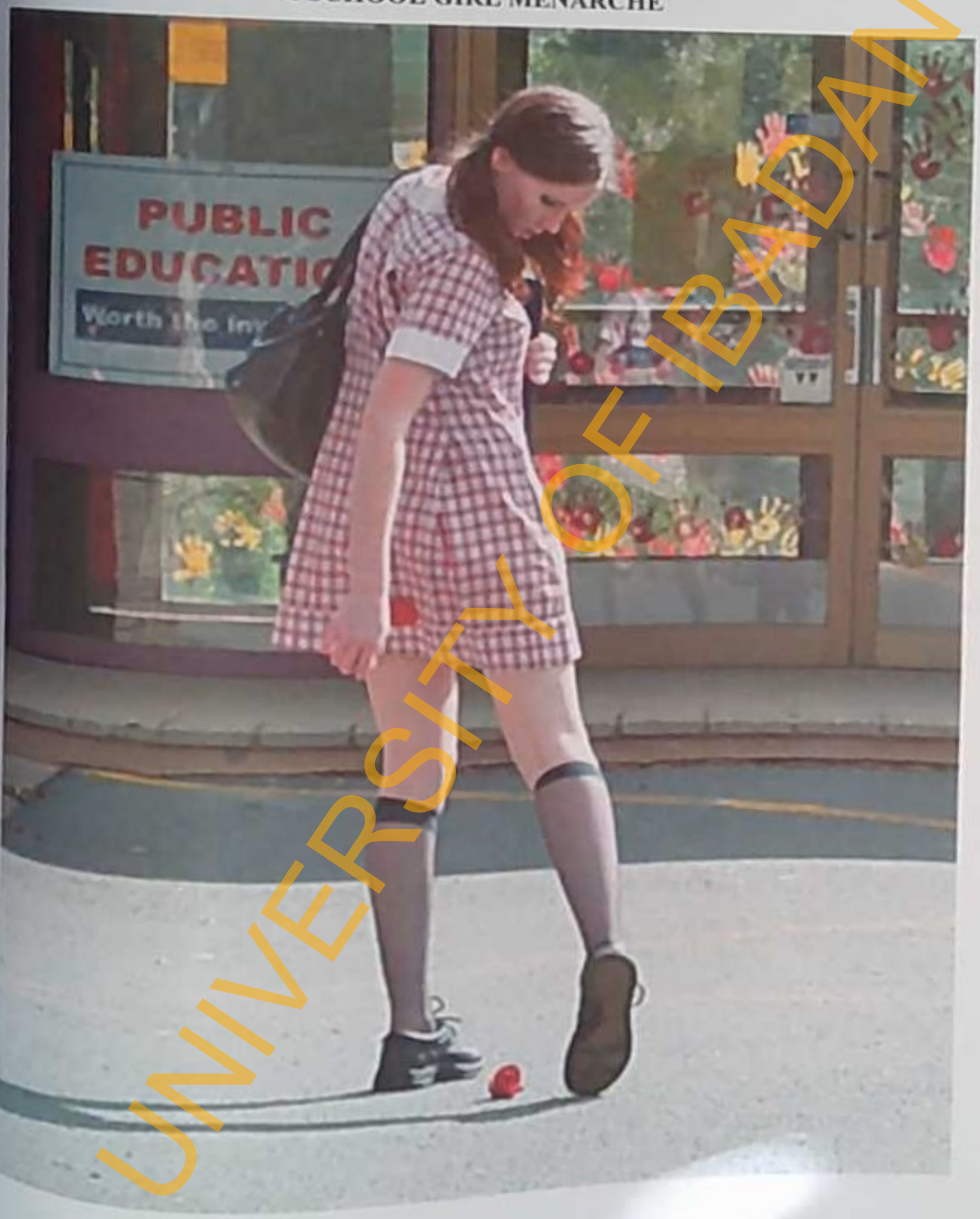
Thank you.

I agree and would want to participate.

Participant's Signature/ Verbal Consent.

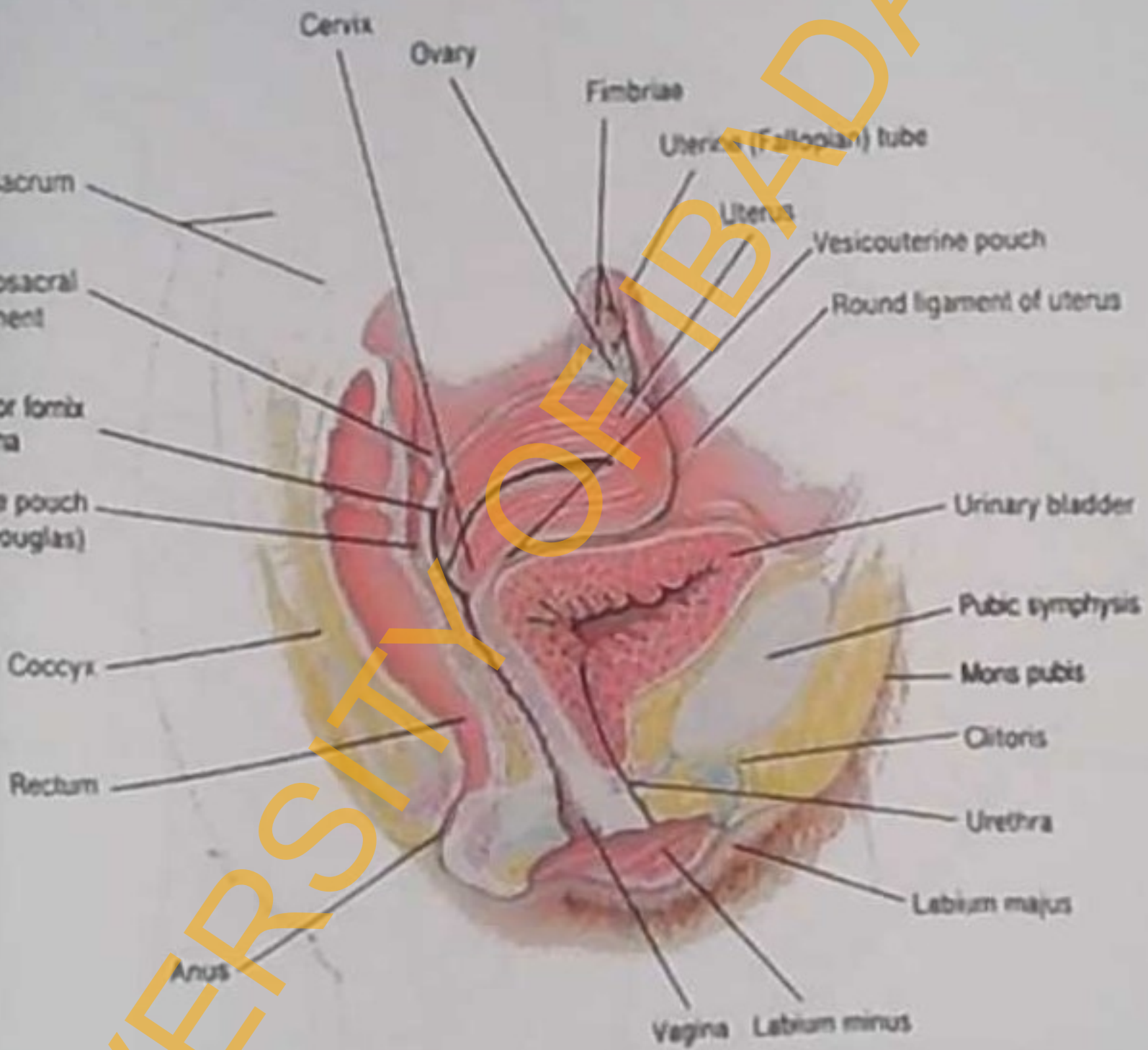
APPENDIX 3

A SCHOOL GIRL MENARCHE



APPENDIX 4

FEMALE REPRODUCTIVE SYSTEM



AP SHOWING IBADAN NORTH LOCALGOVT.