NATIONAL OPEN UNIVERSITY OF NIGERIA
Plot 91, Cadastral Zone, Nnamdi Azikiwe Express Way, Jabi Abuja

B.Sc (Ed) Health Education

COURSE HED 213: FAMILY LIFE AND SEX EDUCATION

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COURSE GUIDE

Introduction

The family is a very important unit of society which contributes to development of society and for the wellbeing of members of the family. The family is started through a contract between consenting adults who agree to live as husband and wife. In society, there are some variations in the marital contract. The primary aim of the family is to help propagate the species through the matrimonial functions of the couples. To perform this function effectively there is the need to understand the facilities one is equipped with to perform these functions and how they work. This is most time learnt from the family but it is mostly advocated to be taught to school aged children to equip them early to become responsible adults who make responsible choices in sexual matter which will safeguard their health and that of the children through formal teaching of sex

education in schools. The result of sexual relationships is for the good of the spouses and to achieve pregnancy when and as often as desired. There are defined stages of pregnancy and factors that may affect the outcome. In order to control fertility the family planning methods are also considered highlighting there benefits and negative effect. All these are components of sex education that is important for families and adolescents to help avoid unwanted pregnancy and its consequences.

Course Competencies

The aim of the course is to equip you with knowledge, attitude and skills required to be an active member of the school health team and also to understand the administration of the school health programme, so that in your capacity as an administrator you will have all it take to coordinate the activities for the optimal health of the school population. Specifically this will involve:

- To understand the foundation of families and its relationship with propagation of the species and all that is needed to make this process safe for the families.
- Appreciate the need for proper sex education as a means of equipping families especially adolescents with required knowledge, attitudes and skills required for effective boy/girl and marital relationship.
- To acquire skills needed to teach and inculcate in families and students the benefits and dangers inherent in sexuality and to equip them with information to make informed choices to reduce consequence of sexuality especially on the adolescents.

Course Objectives

By the end of this course you should be able to:

1. Explain marriage, types and factors that enhance success of marriage.
2. List the functions and types of the family
3. Explain the components of maternal and child health.
4. Explain sexuality its common terminologies and its components
5. Identify the male and female reproductive system and explain sexual function of the sexes.
6. Explain pregnancy and its stages
7. Identify pregnancy related conditions
8. Define sex education
9. Explain approaches to sex education
10. Discuss sexual consequences in adolescence
11. Identify methods of family planning
12. List the benefit and consequence of use of contraception

Working through this course:

To successfully complete this course, read the study units, listen to the audios and videos, do all assessments, open the links and read, participate in discussion forums, read the recommended books and other materials provided, prepare your portfolios, and participate in either face to face facilitation in your centre or the online facilitation.

Each study unit has introduction, intended learning outcomes, the main content, and conclusion, summary and references/further readings. The introduction will tell you the expectations in the study unit. Read and note the intended learning outcomes (ILOs). The intended learning outcomes tell you what you should be able to do at the completion of each study unit. So, you can evaluate your learning at the end of each unit to ensure you have achieved the intended learning outcomes. To meet the intended learning outcomes, knowledge is presented in texts, video and links arranged into modules and units. Click on the links as may be directed but where you are reading the text off line, you will have to copy and paste the link address into a browser. You can download the audios and videos to view off line. You can also print or download the texts and save in your computer or external drive. The conclusion gives you the theme of the knowledge you are taking away from the unit.

There are two main forms of assessments – the formative and the summative. The formative assessments will help you monitor your learning. This is presented as in-text questions, discussion forums and Self-Assessment Exercises.

The summative assessments would be used by the university to evaluate your academic performance. This will be given as Computer Based Test (CBT) which serves as continuous assessment and final examinations. A minimum of three computer based tests will be given with only one final examination at the end of the semester. You are required to take all the computer-based tests and the final examination.

Take notes when reading and listening to the video clips. You may use your note pad and pen, or Microsoft Word document in your computer or use Google drive while studying. This will help you create and organise your portfolio. Should you encounter any technical challenge while studying, contact the technical support in the direction or links provided.

Study Units

There are Nine (9) study units in this course divided into three modules. The modules and units are presented as follows:

Module 1: Marriage, Family Structure and Family Health

Unit 1 Structure of the family
Unit 2 Family Health
Unit 3 Marriage

Module 2: Human Sexuality and Reproductive Systems

Unit 1 Human Sexuality
Unit 2 Female Reproductive System
Unit 3 Male Reproductive System

Module 3: Pregnancy, Adolescence Sexuality and Sex Education
Unit 1 Pregnancy and Pregnancy–related Conditions
Unit 2 Adolescence Sexuality and Sex Education
Unit 3 Family Planning

References and Further Reading

The following references and links are provided for further readings.

1. Abara, C.J. *Child marriage/betrothal in Nigeria*. Paper presented for circulation at the Federation of Human Right Museums. https://www.fihrm.org/wp-content/uploads/2017/07/JulieChinweAbara-Child-Marriage.pdf. Retrieved 25/10/2019

2. Achalu, E.I. (2018). *Family life and sex education*. (2nd ed.). PortHarcourt, Simarch Nigeria Limited and Splendid Research and Development Int'l Ltd.

3. Denham, S.A. (1999). The definition and practice of family health. *Journal of Family Nursing*, https://doi.org/10.1177/107484079900500203

4. Guma, J. (Eds.), *A demographic perspective on gender, family and health in Europe*. Bonn, German Centre for Neurogenerative Diseases. Pgs. 23-40

5. Hank, A. & Steinbach, A. (2018). Family and health: A review, Doblhammer, G. & Guma, J. (eds.), *A Demographic Perspective on Gender, Family and Health in Europe*, https://doi.org/10.1007/978-3-319-72356-3_3

6. Jones, R.E. & Lopez K.H. (2014). *Human reproductive biology* (4th ed.). Elsevier Inc.

7. Levine, R., Langer, A., Birdsall, N., Mathemy, G., Wright, M., and Bayer A. (2006). *Contraception*. In Jamison DT, Breman JG, Measham AR, et al., (Eds).Washington (DC): The International Bank for Reconstruction and Development /The World Bank; New York: Oxford University Press.

8. Parkinson, L. (1987). *Separation, divorce and family*. England, Maximillian Education.

9. Symons, D. (1979). **Evolution of Human Sexuality**. NY, Oxford University Press.

10. WHO (2018). *Family planning- A global handbook for providers*. Geneva, WHO

11. WHO (2018). WHO recommendations on adolescent's sexual and reproductive health. Geneva, WHO.

Links

1. https://www.academia.edu/4874184/Family_and_relationship_Case_Study_What_are_the_lessons_learnt_from_various_case_studies_in_Ireland
2. https://www.youtube.com/watch?v=h82ltr84_Yg
3. https://apps.who.int/iris/bitstream/handle/10665/275374/9789241514606-eng.pdf?ua=1

Presentation Schedule

The presentation schedule gives you the important dates for the completion of your computer-based tests, participation in forum discussions and participation at facilitation. Remember, you are to submit all your assignments at the appropriate time. You should guide against delays and plagiarisms in your work. Plagiarism is a criminal offence in academics and is highly penalised.

Assessment

There are two main forms of assessments in this course that will be scored: the Continuous Assessments and the final examination. The continuous assessment shall be in three fold. **There will be two Computer Based Assessments. The computer-based assessments will be given in accordance to university academic calendar. The timing must be strictly adhered to**. The Computer Based Assessments shall be scored a maximum of 10% each, while your participation in discussion forums and your portfolio presentation shall be scored maximum of 10% if you meet 75% participation. Therefore, the maximum score for continuous assessment shall be 30% which shall form part of the final grade.

The final examination for HED 106 will be maximum of two hours and it takes 70 per cent of the total course grade. The examination will consist of 70 multiple choice questions that reflect cognitive reasoning.

Tutor-Marked Assignment (TMA)

There are five Tutor-Marked Assignments in this course. You need to submit the five assignments for grading. Three best scores shall be selected from the five TMAs for use as your continuous assessment score. The maximum score for the three TMAs shall be 30%.

Should you have challenge starting the assignments or submitting at the due dates, you may request for extension from your facilitator.

Final Examination and Grading

The final examination for HED106 will be for three hours and it takes 70 per cent of the total course grade. The examination will consist of questions that reflect the types of self-assessment and Tutor-Marked exercises you have previously encountered. All areas of the course will be assessed. Deploy the time between finishing the last unit and sitting for the examination to revise the entire course. You may find it useful to review your self-assessment exercises and comments by your tutorial facilitators before the examination. The final examination covers information from all parts of the course.

How to Get the Most from the Course

To get the most in this course, you need to have a personal laptop and internet facility. This will give you adequate opportunity to learn anywhere you are in the world. Use the Intended Learning Outcomes (ILOs) to guide your self-study in the course. At the end of every unit, examine yourself with the ILOs and see if you have achieved what you need to achieve.

Carefully work through each unit and make your notes. Join the online real time facilitation as scheduled. Where you missed the scheduled online real time facilitation, go through the recorded facilitation session at your own free time. Each real time facilitation session will be video recorded and posted on the platform.

In addition to the real time facilitation, watch the video and audio recorded summary in each unit. The video/audio summaries are directed to salient part in each unit. You can assess the audio and videos by clicking on the links in the text or through the course page.

Work through all self-assessment exercises. Finally, obey the rules in the class.

Study Guide

Module	Unit	Week	Activity	Time
	Study Guide		Read the Study Guide	
Module 1	1	1	Structures of Family	2 hours
	2	2	Family Health	2 hours

Module	Unit	Week	Activity	Time
	3	3	Marriage	2 hours
			TMA 1	
Module 2	1	4	Human Sexuality	2 hours
	2	5	Female Reproductive System	2 hour
	3	5	Male Reproductive System	2 hour
Module 3	1	6	Pregnancy, Childbirth and Pregnancy-related Conditions	2 hours
	2	7	Adolescence Sexuality and Sex Education	2 hours
	3	8	Family Planning	2 hours
			TMA 2	
			TMA 3	
		15	Revision	2 hours
		16 & 17	Exam	
Required Total Hours of Study				**20 hours**

Facilitation

You will receive online facilitation. The facilitation is learner centred. The mode of facilitation shall be asynchronous and synchronous. For the asynchronous facilitation, your facilitator will:

- Present the theme for the week;
- Direct and summarise forum discussions;
- Coordinate activities in the platform;

- Score and grade activities when need be;
- Upload scores into the university recommended platform;
- Support you to learn. In this regard personal mails may be sent;
- Send you videos and audio lectures; and podcast.

For the synchronous:

- There will be eight hours of online real time contact in the course. This will be through video conferencing in the Learning Management System. The eight hours shall be of one-hour contact for eight times.
- At the end of each one-hour video conferencing, the video will be uploaded for view at your pace.
- The facilitator will concentrate on main themes that students must learn in the course.
- The facilitator is to present the online real time video facilitation time table at the beginning of the course.
- The facilitator will take you through the course guide in the first lecture at the start date of facilitation

Do not hesitate to contact your facilitator. Contact your facilitator if you:

- do not understand any part of the study units or the assignment.
- have difficulty with the self-assessment exercises
- have a question or problem with an assignment or with your tutor's comments on an assignment.

Also, use the contact provided for technical support.

Read all the comments and notes of your facilitator especially on your assignments; participate in the forums and discussions. This gives you opportunity to socialise with others in the programme. You can raise any problem encountered during your study. To gain the maximum benefit from course facilitation, prepare a list of questions before the discussion session. You will learn a lot from participating actively in the discussions.

Finally, respond to the questionnaire. This will help the university to know your areas of challenges and how to improve on them for the review of the course materials and lectures.

MODULE 1 MARRIAGE, FAMILY STRUCTURES AND FAMILY HEALTH

The human family plays a very important role in the social, economic and wellbeing of society. It also plays is also the vehicle for the transmission of cultural values and moral norms from one generation to another. The foundation of a family is usually laid though marriage which is a contract between a man and a woman to unite to form a family. There are different variations of marriage or of union between couples and there are factors that affect the success or failure of the marriage contracts which are some of the issues that will learn in this module. One of the functions of the family is also to take care of the health of its members, especially the weaker and most vulnerable members of the family. In this module you will be exposed to maternal and child health and specific programmes designed for the wellbeing of mother and child and what works and factors that may affect this.

Unit 1: Structures of the Family
Unit 2: Family Health
Unit 3: Marriage

UNIT 1: STRUCTURES OF THE FAMILY

Contents

1.0 INTRODUCTION

This unit is designed to get you acquainted with the family and its structures in society. The family has been seen as the bedrock of a strong society. Therefore, we are going to explore the importance of family and the roles it plays in building a sustainable and stable society/nation. There are also factors which help to strengthen the society and others which weaken the society and these we will study in this unit.

2.0. INTENDED LEARNING OUTCOMES (ILOS)

By the end of this unit, you will be able to:

a) define the family.
b) identify types of families.
c) list family members and their role in the family
d) explain factors that weaken and factors that strengthen the family

3.0. MAIN CONTENT

3.1. Definition of Family

A family is a basic unit of the society that is responsible for supporting, caring for and preparing children for adulthood. It is made up of people related by blood, marriage or law. There are several characteristics that defines a group of people as a family. Firstly for a family to be formed there must be a marriage between a woman and a man (traditional, religious or court marriage), Children might be brought into the relationship either by mating between the couples or by adoption, the family must have a common habitation together. Some examples of families are:

a) Blood-related family: Parents and their children.
b) Family-related by marriage- Husband and wife plus their relatives.
c) Family-related by law-Husband and wife plus adopted child or foster children.

3.2. Types of family

While families may vary in their constitution, one thing stands out and that is that families are a collection of members who make a commitment to support, provide, comfort and secure each other. The following are some common types of families:

3.2.1. **The Nuclear family or conjugal or immediate:** This kind is based on individual mate selection. Nuclear can be biological or social. Biological Nuclear Family consists of two parents and a child or more than a child. Parents may not live together, but the child's biological nuclear family is defined by the union of the parents. The social nuclear family is created when two people establish a relationship either by marriage or cohabitation. In this type, they may produce children or decide not to produce children. It is a loose type.

3.2.2. **Extended family:** The extended family may be big or small, it could consist of a grandparent and a grandchild living together and having frequent, intimate interaction. We have three subdivisions in this type of family:

a) **Three generation family:** A common form of it involves grandparents, parent and children living together. This type is found in a culture like ours where we value respect and care for the family. We also found that it is common in rural areas.
b) **Kinship family:** This may consist of larger units than the three-generation family. In addition to three or more generations, other relatives also belong to the same household and are referred to members of the family.
c) **Tribal family:** This is usually built on a social than a biological base. The responsibility for the care of children may be taking up several people e.g. maternal and paternal uncles as well as maternal and paternal aunts who are regarded as fathers and mothers, while cousins are brothers and sisters. The uncles and aunts have the responsibility of meting out discipline. In this type one rarely get through orphans.

3.2.3. **Monogamous family:** This is a family in which a man has just one wife.

3.2.4. **Polygamous family:** In this type of family one man is married to two to or more wives. All the women may or may not live their spouse. Children may or may not live with their biological parents.

3.2.5. **Reorganized family:** Reorganization of the nuclear or extended family can occur through marriage or remarriage, or cohabitation of persons who have children by their former means.

3.2.6. **Consanguine:** A family that emphases blood relationship or relatives. When couples marry, their allegiance are to their original families. They may live near the husbands or the wife's family, this depends on whether descent is patrilineal or matrilineal. In such families, children are integrated into the extended family. A family could be seen as a household or as kindred.

3.3. Functions of the family:

a) The establishment of emotional social and economic bonds between spouses.
b) Procreation and social relationship between spouses.
c) Giving names and status to family members especially the children.
d) Basic care of the children, and in many cultures of the elderly and relatives with disabilities.
e) Socialization and education of the children and parents.
f) Protection of family members.
g) Emotional care and recreation of family members.
h) Exchange of goods and services.

3.3.1. Traditional Roles of Individual members of the Family:

a) Father: Responsible for providing food, shelter and money for the family; Making important decisions.
b) Mother: Preparing food and keeping the house in order; nurturing and raising the children, teaching them morals and values.
c) Children: Obeying their parents; Girls help in the household and particularly in the kitchen; Boys help on the farm or with father's occupation.

3.3.2. Observations about Families:

a) Families are psychological as well as social-economic units. It is the basic unit of the social class. Your family determines the social class to which you belong. Every individual belongs to a family and so must live in a family context for life.
b) The family as an economic unit is the foundation of the world's economy. The family serves as an income-generating enterprise to the society in general.
c) The families are today undergoing dramatic changes, the birth rate in families is decreased worldwide and so the divorce rate entry of young married women with children into the workforce has increased all over the world. Percentage of a household headed by women with dependent children is increasing; the increase may result from separated family or loss of one's spouse.

d) Families are constantly involving. The changes occur through internal or external factors. New members are added, children grow up and move away, family members die etc.
e) The relative strength of a nation and society depends largely on the strength of its families. In other words whatever happen in the family affect the country and vice visa. E.g. urbanization, industrialization etc. alters the pattern of family life. Also, the ecological disaster affects the family pattern. E.g. oil spillage could pollute the soil with a consequent effect on the family. Also political and economic changes affect the family. Injuries, wars and social factors are not left behind.
f) Families can serve as an agent of or obstacles to change and development especially concerning social values.

3.3.3. Some Weakness in the Family:

a) The rising divorce rate is a weakening force in the family. Divorce can impoverish a man.
b) Mothers in the workforce is also a weakening force in the family, when the women and the men go to work, nobody meaningful care for the children, children are left to be cared for by inexperienced guides**.**

3.3.4. Strengthening Factors

a) Better education, especially of women is a strengthening factor in the family
b) Proper teaching and exercise of faith helps to improve morality in the family and strengthens the family.

Discussion

In order to firm up the understanding of the concepts discussed in this unit you are expected to consider the question "Who is the most important person in the family?" Present your position on the matter giving reasons why you think the identified member of the family is the most important.

Case Studies

Download Steven Evans write-up "Family and relationship case study: What are the lessons learnt from case studies in Ireland". This will explain the relationships and experiences among family members which will help you appreciate the things that make or mare family relationships.

Source:
https://www.academia.edu/4874184/Family_and_relationship_Case_Study_What_are_the_lessons_learnt_from_various_case_studies_in_Ireland

4.0 SELF-ASSESSMENT EXERCISE(S)

1. What is a family? Identify the common types of families in Nigeria?

2. Mention at least three categories of members of a family and their roles as members of a family?
3. List any five functions of the family in society?

5.0 CONCLUSION

In conclusion families are important for the wellbeing of members of society and it achieves this by the role each member of the family play in that environment. The strength or weakness of this unit of society is dependent on the members performing their individual roles, adopting measures that strengthen families and avoiding factors that weaken it.

6.0 SUMMARY

In this unit we have been exposed to the meaning of family and what the family represents in the wider society. We identified types of family and the roles of members of the family. The unit also highlighted factor that strengthen and factors that weaken the family.

7.0 REFERENCES/FURTHER READINGS

Parkinson, L. (1987). *Separation, divorce and family*. England, Maximillian Education.

Achalu, E.I. (2018). *Family life and sex education*. (2nd ed). Portharcourt, Simarch Nigeria Limited and Splendid Research and Development Int'l Ltd.

UNIT 2: FAMILY HEALTH

Contents

1.0. INTRODUCTION

Family as a unit of society held together by some family bond as discussed in the preceding unit, the health needs of each category of members of the family unit differ one from the other. This unit focus on some health needs of the family most especially the most vulnerable members of the family (mother and child) maternal and child health.

2.0. INTENDED LEARNING OUTCOMES (ILOS)

By the end of this unit, you will be able to:

1. define family health.
2. identify the family's responsibilities in the area of health.
3. distinguish the health needs of categories of family members one from another.
4. explain components of maternal and child health care.
5. identify common health problems of under-fives.
6. discuss some common sexual health problems.

3.0. MAIN CONTENT

3.1. Definition

Family health comprises the wellbeing of the members of the family, including the father, mother, children and others in the family. Health tasks of the Family include:

a) The family recognizes the interruption to healthy development. E.g. the failure of a child to thrive, illness in the family.
b) The family monitors the concept of illness and health.
c) Deciding how to seek health care for the family.

d) Dealing effectively with health and non-health crisis. Health crisis includes incapacitating illness, death in the family, childbearing, and hospitalization. Non-health crises include- unexpected unemployment or retirement, going on transfer, divorce, marital disagreement.
e) Providing nursing care to sick, disable or dependent member of the family. This includes care of minor health problems, personal care of the very young or the old, care of people before or after hospitalization. It also includes care of those parents who are ambulatory and require special treatments that can be provided at home.
f) Maintaining a home environment that is conducive to health maintenance and personal development. (Which includes physical, psycho-social and emotional). It includes providing a good safe environment. The environment in terms of physical, social, involves establishing love, recreation, and games for the family.
g) Maintaining a reciprocal relationship in a community and with community health institutions, this is because the family health care requires the intervention of a variety of a community-based individual, groups and institutions e.g. immunization, antenatal. The family should be involved in community health-based activities.

Most times, the emphasis in family health is on maternal and child health and family planning. Thus, components of family health include:
a) Maternal health: emphases is on pregnant and lactating mothers.
b) Child health- encompasses the health and supervision of children below school age.
c) School health
d) Care for the handicapped

3.2. Aims of Maternal and Child Health (MCH)

Five aims of maternal and child health services ensure that:
a) Every expectant mother maintains good health and is prepared physically and psychologically to look after her child and that the expectant mother goes through the experience of normal delivery and bears a healthy child.
b) Every child grows up in health surrounding and receives proper nourishment and adequate protection from disease.
c) That sickness is detected and treated early before it becomes chronic or serious.
d) To ensure that communicable diseases are controlled in the vulnerable age by taking adequate preventive measures and by health education.
e) To ensure that simple statistical data on morbidity and mortality are maintained at local, federal and state government.

MCH programmes cover the promotional, preventive, curative and rehabilitative services for mothers and their children. These programmes are required by families so that mothers (during and between maternity circles) and their children may be kept well or if actively or chronically ill or handicapped, or crippled by

social, emotional or mental conditions may be restored to the greatest possible degree or the extent to good health. The organization of such services is may be available under public or voluntary or NGOs or through private practitioners health services. Services provided by MCH include: Antenatal care, postnatal care, curative services for mother and children, home nursing services, home visit services, infant welfare clinics, oral rehydration therapy, nutrition clinics and Family planning services.

3.3. Activities carried out during Antenatal

a) Health assessment of the woman: This includes taking blood pressure, weight measurement, urine test, STD test, palpation, and foetal heart rate. Blood pressure could lead to toxaemia and pre-eclempsia.
b) Immunization: Tetanus injection is given to the woman the first time she comes for antenatal because infantile tetanus is a big problem during delivery in an unhygienic environment.
c) Maternal prophylaxis: women are often given drugs such as folic acid, ferrous tablets, calcium tablets, multivitamin tabs, treatment does of chloroquine, daraprine, (ferrous tablet helps to prevent anaemia)
d) Health education
e) Prenatal classes: these are also important as part of antenatal services organized by doctors and nurses. They educate the women about labour and management of labour. Exercise like breathing exercises, relaxation exercise is also taught, which will help them during different stages of labour.
f) Postnatal clinics for women and children: after a woman has delivered, she is asked after six weeks for post-natal assessment (with her baby). The baby is weighed to know if he is growing well, how the baby is fed. Examination of the uterus, virginal and healing of episiotomy is also done. They are also encouraged to bring their baby for immunization.
g) Infant welfare clinics: Activities carried out include: immunization, health education on how to care for the baby, and weight monitoring (should be conducted for the first five years of the life of the baby to help detect abnormality in growth). In some hospitals it is advised to have a comprehensive infant welfare clinic (curative and welfare service).
h) Nutrition clinic: Nutrition education or demonstrations are conducted, it provides an opportunity for health workers to see how mothers feed their babies.

3.4. How to promote Maternal and Child Health Services

a) We must have facilities and they should be accessible to mothers and their children.
b) A lot of health promotions could be achieved through health education; we can encourage mothers to begin to take responsibility for their health and the health of their children. Educate them on the available services. So that they can make proper use of them.
c) Encourage early and regular attendance at antenatal clinics, so that problems can be detected early.

d) Help mothers to understand that childbearing before the age of 18 and after the age of 35 is a risk to both the mother and the child.
e) Encourage proper child timing and spacing.
f) Discourage early marriage- girl marrying before they are fully developed.
g) Female education- it helps both the family members

3.5. Sexual Problems and Disorders

Sexuality is one of the important factors in family life and the health of marriages. Any persistent, recurrent problems with sexual response, desire, orgasm or pain which causes distress or strain on relationship with a partner can be classified medically as sexual dysfunction. There are some underlying factors that contribute to these situations. These factors include:

1) Psychological factors
2) Structural or physiological malfunctioning of the sex organs.
3) Problems related to other disease conditions e.g. diabetes mellitus.

Some Sexual problems include:

1. **Impotence:** Impotence also known as erectile dysfunction is a physical or psychological condition that affects relationships and self-confidence in marriage. It is the inability of a man to have an erection or failure to maintain a strong erection of the penis.

   The main symptom is a man's inability to get or keep an erection firm enough for sexual intercourse. Several causes has been advanced for this situation and they include vascular disease which limits the amount of blood flow to the penis, nerve damage which can be as a result of some underlying diseases which result in the inability to get the penis erect, psychological issues like depression, anxiety, guilt or fear and the use of some medications which might affect erection. We have primary and secondary impotence, it is primary when the affected has never achieved erection and secondary when the sufferer has achieve coitus in the past and can no longer achieve one.
2. **Premature ejaculation:** Ejaculation is premature when it happens sooner than a man or his partner would like during sex. It might happen occasionally and sometime rapid or very early. It make sexual intercourse less enjoyable and might have impact on relationships. Ejaculation is controlled by the central nervous system and happens men reach a certain level of excitement and comes in two stages, emission which is the movement of sperm mixes with the seminal fluid and moves to the base of the penis and expulsion when the muscles at the base of contract and forces the semen out of the penis which happens at the same time with orgasm. The penis losses turgidity and erection goes away. The major problem with premature ejaculation is that it reduces the length of time one is engaged in sexual intercourse to ones partners' dissatisfaction.
3. **Frigidity:** Failure of a female to respond to sexual stimulus; aversion on the part of a woman to sexual intercourse; failure of a female to achieve an orgasm (Anorgasmia) during sexual intercourse. The main foundation of frigidity is fear of penetration which may have been felt of perceived. This fear might be developed from personal experience or from the experience of others. This poor participation

and enjoyment of sex might have a negative effect on marriages and relationships including infidelity, STDs etc.

4. **Dyspareunia (Painful Intercourse):** Many women have painful intercourse at some point in their lives that may be caused by structural or psychological factors. Dyspareunia is defined as persistent or recurrent genital pain that occurs just before, during or after intercourse. Physical causes of painful intercourse differ, depending on whether the pain occurs at entry or with deep thrusting. Emotional factors might be associated with many types of painful intercourse. The common causes include poor lubrication due to drop in oestrogen level during postmenopausal periods or during breastfeeding, side effect of use of some medications, injury or trauma through child birth or other accident to the pelvic region, infection in the genital area, vaginismus (involuntary spasms of the muscles of the virginal wall, congenital abnormalities e.g. imperforate hymen and emotional factors of sexual origin.

4.0 SELF-ASSESSMENT EXERCISE(S)

1. Mention five roles of the family in ensuring the wellbeing of every member of the family?
2. List five aims of maternal and child health care?
3. As a health educator, what steps will you take to improve the uptake of MCH among mother of childbearing age?

Answers

5.0 CONCLUSION

It is one of the important functions of the family to care for the different dimensions of wellbeing of family members. The variation in the composition of family membership indicates that each category require specific approach to their wellbeing in order to protect their health. The most vulnerable mothers and under-fives deserve special care through maternal and child health care with components which ensure better health outcome for mothers and their babies. Some other problem in families include sexual problems which can affect relationships between the spouses.

6.0 SUMMARY

In this unit we have look at the different health need of members of the family. We have also underscored the need to pay attention to the most vulnerable family members especially mother and their babies and the attention they get through maternal and child health services. Some sexual problems that might disrupt smooth flow among the spouses were also highlighted.

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UNIT 3: MARRIAGE

Contents

1.0 INTRODUCTION

This unit is focused on marriage a bond between husband and wife and the foundation of the family which was the focus of unit 1 and 2. This unit introduces us to marriage and the different variations of marriage. It highlights theories explaining the process of choosing a partner and the consequences and benefits of different forms of marriage.

2.0 INTENDED LEARNING OUTCOMES (ILOS)

By the end of this unit, you will be able to:

1. define marriage.
2. identify different types of marriages.
3. explain some theories in mate selection.
4. distinguish between one form marriage and the other.
5. list the consequence and benefit of any type of marriage.

3.0 MAIN CONTENT

1.1. Definition of Marriage

This referred to the legal procedure by which a woman and a man become husband and wife. There are several modifications of male/female relationships that needs to be highlighted here. These include:

1. **Free sex or (promiscuity):** This is a situation where a person is not married and they engage in unrestricted sexual relation. Effect: unwanted pregnancy, STD.
2. **Group marriage:** Where several women are married to several men. People in the community are allowed to have free sex with many others in the community. Effect: Jealousy and STDs.
3. **Polygamous marriage:** A marriage of one man to several women. Effect: STD, jealousy, multiple sex partners.
4. **Polyandry**: a woman married to several men. Effect: multiple sex partners**.**

5. **Sororate polygamy:** A man makes a contract agreement to take all his wives from the same kin groups**.**
6. **Surrogate polygamy**: A situation where a dead or barren wife is replaced by one of her sisters.
7. **Levirate polygamy**: it is a cultural practice where a man is obligated to marry the widow of his brother.
8. **Monogamous marriage**
    1) Serial monogamy: This is a situation where people remarry after divorce or dissolution of the marriage.
    2) Strict monogamy: a marriage of one man to one woman until widowhood. They do not marry after the death of the husband**.**
9. **Celibacy:** No marriage, no sexual relation.

1.2. Mate selection

In deciding marriage partners, several considerations are made and these considerations have effect on the possible outcome and nature of marriages. These include:

a. **Endogamous:** Marriage between people of similar social background.
b. **Exogamous:** Marriage outside one's social background.
c. **Homogamous:** A statistical tendency for likes to marry likes. Homogamy is a marriage between bride and groom that share personal traits e.g. personality appearance, trait.
d. **Heterogamous:** Marriage in which there are differences in personality traits between the partners.

3.3. The Exchange Theory

1. **Ethnocentrism:** It is the feeling that one's ethnic group, family background and way of life are better than others. This is learnt as we grow up. Through ethnocentrism and other patterns of socialization, children learn to attach value to personal and social characteristics as if these were a commodity of personal resources. Based on this fact the exchange enduring love and attraction are most likely to occur or emerge when each person in a relation perceive an advantageous exchange between contributed and received resources. Because the core of the theory is comprised of resources we need to define some specific resources that may influence people romantic relation.
2. **The person:** The person per se could be considered the resources. And the value of a person depends on the scarcity of the desired sex.
3. **Age:** It has been found that women prefer older men and men prefer younger women. Age is associated with the appearance in youth and with higher socio-economic status at the older age levels.
4. **Appearance:** It includes physical, physiognomy, gestures, mannerism, demeanour and complexion. There is also an overall effect that cannot be defined. That is why people say that beauty is in the eyes of the beholder. Generally, appearance is valued when compared with what it contributes to the success of the marriage.

5. **Status:** Is a combination of prestige, ranking, economic wellbeing, education, recognition through honours, accomplishment, occupation and family background. Inmate selection, a suggestive evaluation of these various components of status is relevant to the formation and continuation of romantic feelings.
6. **Personality:** Refers to a person's perception of another person's ability to understanding, emotional, expressive, accepting, co-operative, etc. but here in assessing personality people make mistake because perception may be tempted by expectations and also the way a person presents himself before marriage, may not convey the same personality he exhibits in everyday marriage life.
7. **Companionship:** This is an important character in a mate. It is very desirable. But this tends to reflect Middle Western class value and it is important for those people who expect a quality between sexes during selection and the marriage. It is the ability to share leisure, social and intellectual activities at all levels. Communication is important in good companionship. Also important is the ability to share, and the willingness to accept each other as equal partners in relation.
8. **Believes**: Political believes are exchange resources. People will assess each other as potential partners on the bases of shared beliefs. But beliefs can be changed.
9. **Theory of Complementary Needs**: This theory is based on the exchange theory of complementary need which says that the opposite sometimes attracts. And this theory according to the proponent, says that an individual chooses a mate who provides him or her with maximum need gratification. However maximum need gratification occurs when the specific need patterns of the man and the woman are complementary rather than similar. E.g. hostility and abasement, dominance and submissiveness, nurturance and succouring, achievement and vicariousness. The human need for love and affiliation is what makes someone to look for a mate and to marry. Marriage provides companionship and emotional should not think it is the ultimate, because there may be a few people who are meant to marry.

3.4. Factors that Affect the Choice of Partner and Marriage

These include health, Age, heredity (certain inherited character can be a positive or negative effect), education, and Social background. Others are temperament, parental approval, manners, morals, attitudes, religion, culture, race, finances, common interest, similar or dissimilar work

1) Actual choosing of whom to marry: In traditional societies and among affluent people marriage is arranged. However, the trend today is that young people make their own choices of marriage partner. In our society, marriage establishes a social relationship between partners and their families.
   Steps involved in Mate Selection
   a. There is always an initial attraction.
   b. Contact is made
   c. People get into the process of knowing each other better which involves

joint participation in all kinds of activities (dating).

2) The intimacy which involves being at ease with each other begins. In a society of our couples try to know each other's family and relations between the two families are cultivated. They try to gain parental approval.
3) The next step is a thorough medical examination including a blood test, genetic examination and HIV test. Based on the result of the genetic test, people should go for marriage counselling.
4) Marriage for young girls below the age of 18 is not encouraged. Apart from the fact that happiness level changes with the age of couple at the point of marriage, having babies around the age of 18 is not safe, because at that age the girl is still developing (VVF can develop). Young girls should have basic education before marriage because it serves as a form of security in the future. Secondly, it boosts the health of the family.

Factors that Affect Marriage Adjustment:

1. Sexual gratification: Studies have shown that lack of sexual gratification affects sexual relationship especially on the part of the woman.
2. Finances: How does a couple spend the money that comes into the family? Should they share a joint account or separate account? A joint account is encouraging.
3. Relationship with In-laws (parents): Couples must get themselves familiarized with both parents, old and new friends.
4. Communication is very important in a marriage. Without communication minor irritation could lead to a very big problem.

Discussion

How best can we prevent early marriage and its consequence in Nigeria? (Your position will include identifying the root cause of the problem and suggesting health education interventions that can ensure that the health of these young girls are protected and promptly managed if their health is compromised).

4.0 SELF-ASSESSMENT EXERCISE(S)

1. Define marriage? Explain any five modification of male/female relationships?
2. Mention any five steps in choosing a spouse?
3. Discuss four factors that can affect sound marital adjustment?

5.0 CONCLUSION

In conclusion, marriage is the foundation of families and therefore, whatever form it takes is based on the type of marriage contracted and these variation have benefits and consequence which must weighed before choosing a partner in order to improve the outcome of marriages which obviously have implications for family health.

6.0 SUMMARY

This unit has exposed us to marriage and its different form and the likely health consequences of each form. It has also shown us that different factors affect the choice

of partner in marriage and that these determine the outcome and the strength of individual marriages.

7.0 REFERENCES/FURTHER READINGS

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MODULE 2: HUMAN SEXUALITY AND REPRODUCTIVE SYSTEMS.

In module 1, you learnt about the family, its foundation and functions. One of the most important function of the family is the propagation of the human species. This module will teach you about human sexuality, which is the expression of maleness and femaleness of the human species. It will take you through a tour of common sexuality terms. One high point of this module is to expose you to human sexual responses in the sexes. Taking you through the various stages of the sexual responses in humans. These responses are function of the reproductive system of the sexes which vary between males and female. In this module, you will get to learn about the organs of the human reproductive system and how they contribute the generation of new off-springs by explaining to you the male and female sexual functions.

Unit 1: Human Sexuality
Unit 2: Female Reproductive System
Unit 3: Male Reproductive System

UNIT 1: HUMAN SEXUALITY

Contents

1.0 INTRODUCTION

Human sexuality is a very important factor in the propagation of the human species and the enjoyment of marital relationship between the spouses. This unit presents an understanding of the differences in the sexes. Exposes what make us male or female and how our structures and sexual relationship bring about reproduction and the specific organs that make up our reproductive system and the functions they perform.

2.0 INTENDED LEARNING OUTCOMES (ILOS)

By the end of this unit, you will be able to:

1. explain the concept of sexuality.
2. define common sexuality concepts.
3. identify stages of human sexual response
4. explain human genetic inheritance

3.0 MAIN CONTENT

3.1. Introduction to Sexuality

Sex is a function of either being a male or female. The human population can be clearly subdivided into males and females biologically. This two categories are difference to a large extent biologically, psychologically and sociologically. It is the occurrence of these differentiations that accounts for the maleness or femaleness of any human being and this is origin of the term sexuality. In other words sexuality is the sum total of the characteristics that differentiate a male from a female. Sexuality means the total behaviour of who we are human beings. Sexuality affects the whole personality from childhood to old age. Sexuality involves our sexual development, culture, values, genders identity and roles, our emotions, attitudes and health. It goes beyond the biological aspect which has to do with the genitals and reproductive processes such as intercourse and childbearing.

Sexuality includes:

a) How you feel about yourself as a person.
b) How you feel about being a woman or a man.
c) How you get along with members of the same sex and members of the opposite sex.

3.2. Common sexuality terms

Masculinity: Expressions traditionally observed in males.
Feminity: Expressions traditionally observed in females.
Biological sexuality: Male and female aspects of sexuality
Gonads: Male or female sex glands, tests produce sperm and ovaries
Puberty: Achievement of reproductive ability
Menarche: First menstrual flow or starts of a female's menstrual cycle.
Anovulatory: Not ovulating
Nocturnal emission: Ejaculation that occurs during sleep, "wet dream"
Menopause: Decline and eventual cessation of hormone production by the reproductive system
Cohabitation: Sharing of a residence by two unrelated, unmarried people living together
Paraphilia: preference for unusual sexual practices
Incest: Marriage or sexual contact with a close relative
Paedophilia: Sexual attraction felt towards children
Zoophiles: Sexual excitement through contact with animals, also called bestiality
Platonic: Close association between two people that does not include a sexual relationship

Multiorgasmic capacity: Potential to have several orgasms in a single period of sexual arousal
Spermatogenesis: Process of sperm production
Psychosocial sexuality: Masculine and feminine aspects of sexuality
Gender: General term reflecting the biological basis of sexuality; the male gender or the female gender
Gender identity: Recognition of one's gender
Gender preference: Emotional and intellectual acceptance of one's gender.
Gender adoption: Lengthy process of learning the blur that is traditional for one's gender
Gender identification: Achievement of a personality satisfying interpretation of one's masculinity or femininity
Organism: Climax of sexual excitement
Ovulation: The release of a mature egg from the ovary
Erection: The engorgement of erection tissue with blood, characteristic of penis, clitoris, nipple, labia minora, and scrotum
Anorgasmic: Never experience an orgasm
Masturbation: Self-stimulation of the genitals
Erotic dream: Dreams whose contact elicits a sexual response
Transsexualism: Transsexualism is a sexual variance of the most profound nature. It represents a complete rejection by an individual of his or her biological sexuality

3.3. Human Sexual Response

A. Events occurring during sexual response according to Masters and Johnson

a) **Vasocongestion:** occurs when blood fills the sexual organs such as the penis or vulva.
b) **Myotonia:** a condition where the muscles become tight or rigid.

B. Phases of the human sexual response

a) The excitement phase which involves initial erection and expansion of reproductive organs.
b) The plateau phase during which the organs continue to swell
    (a) In the female, the clitoris withdraws into its hood and the organism platform causes the vaginal opening to narrow
    (b) In the male, the penis increases in size and a small amount of seminal fluid may appear.
    (c) The orgasmic phase involves rhythmic muscular contractions and a sudden release of sexual tension resulting in orgasm.
    (d) The resolution phase involves a gradual return to the pre-excited state.

C. Factors that influence sexual performance

a) Culture
b) Education
c) Psychological factor.
d) Disease and drugs.
e) Sexual dysfunctions

D. The common sexual dysfunctions:

a) **Anorgasmia:** Inability to reach orgasm.
b) **Erectile dysfunction**: male's inability to have an erection of sufficient strength and duration to perform intercourse.
c) **Premature ejaculation:** This involves the expulsion of sperm before the sexual satisfaction of one or both partners.
d) **Dyspareunia:** This refers to painful intercourse which may occur during any of the four phases and may be experienced by both males and females. It can be caused by antihistamines or vaginal infections in females.
e) Sexually transmitted diseases can cause some of these conditions in both males and females and in most cases may require medical advice/attention.

4.4. Genetic Inheritance

a) **Heredity:** It is concerned with the capacity of offspring to resemble their parent and ancestors. The study of heredity explains how offspring come to resemble their ancestors in some way and to differ from the other ways.

There are two main ways in which differences occur:

(a) **Mutation:** It is defined as a sudden change that occurs in a gene that is to be inherited, such mutations occur in the sperm or ovum.
(b) **The direct result of sex:** Because two sets of genes, maternal and paternal are pulled in the fertilized ovum which then develops to form offspring. As a result of the pulling of genes, the genetic endowment of the offspring may differ from either of the parents.
(c) **Genes:** It is a segment of the chromosome. It is a unit of biochemical action which provides the specific biochemical instruction that causes a cell to perform specific functions in the body.
(d) **Traits:** It is the outward expression of the effects or the interaction between a gene and his environment. People inherit genes and not a trait. However, the inherited gene may become expressed as traits. The development and expression of a trait are as a result of the interaction of genes and the environment. The environment affects the expression of the gene.
(e) **Genome:** The totality of all the genes that are found in a person.
(f) **Genotype:** It refers to the gene content of a cell.
(g) **Phenotype:** It is the outward expression as a result of the genotype.
(h) **Alleles/allelic genes:** They control the same trait but produce different expressions of the trait e.g. AA
(i) **Dominant:** A gene is dominant when it exerts its full effect by masking the effect of its alleles even when it is not present in full quantity.
(j) **Homozygous-**Homozygous is when the gene is the same. But when they differ they are called heterozygous.
(k) **Genetic uniqueness:** Sibling is unique in their genetic inheritance for the following reasons:

a. The chromosome may carry one of many variations of a particular genetic instruction. When chromosome pairs divide during the maturing of the

sperm and the ovum, it is a matter of chance which of the pairs will go into the gamete. E.g. it has been estimated that there are possible 8 million combinations that can be gotten from two parents.

b. The corresponding segment of a chromosome pair are sometimes exchanges during the first stages of genetic production. This is called crossing over or reshuffling of genes and can create new placement of genes.
c. When the genes of the sperm and ovum combine they interact to produce combinations that are not found in the parents. A given mother and father can form over 64 trillion genetically different offspring.
d. Abnormal genes and chromosomes: Each cell in the human body (except for the egg cell in the woman and sperm in the man) contains forty-six chromosomes, two sex chromosomes, and forty-four autosomes. Each of the millions of cells which make up a woman's body has 44 autosomes and two X chromosomes. Similarly, man's body cell has 44 autosomes and an X and Y chromosome. Half or more zygotes are abnormal. Almost all abnormal zygotes are aborted spontaneously so early in pregnancy that the woman may not even know that she was pregnant. And those that are not aborted die in the later stages of the pregnancy.

Reasons for Chromosomes Abnormalities

a) **Mosaics:** This is a situation where either of the parents has an extra or a missing chromosome. In some cells, this condition is called mosaicism. The parent has a high chance of contributing an abnormal sperm or ovum to the formation of the zygote.
b) **Age of parent:** It has been found that as the woman ages, her probability of having an abnormal baby increases. This may be due to the ageing of the ova. The age of the father may also be a factor especially the pair of a middle-aged or an older woman and an older man trying to have a baby.
c) **Harmful genes:** Such genes are responsible for cystic fibrosis, spinal defect, etc. Many genetic problems are recessive and are no problem, but they become a problem when a person inherits recessive genes from two parents, an example of a recessive gene problem is phenylketonuria. It is a problem in which there is a defect in phenylalanine metabolism.

4.0 SELF-ASSESSMENT EXERCISE(S)

1. How would you explain human sexuality?
2. Explain the two main phases of sexual response between the sexes?
3. Discuss three common sexual dysfunction?

5.0 CONCLUSION

In conclusion therefore, sexuality highlights the different expression of being male of female and determines both the physical, social and emotional reaction to issues of sexuality among the sexes. It also explained the stages of human response to sexual arousal and factors that may affect negatively the expression of these emotions and its physiology.

6.0 SUMMARY

You have been exposed to issues of sexuality and its expressions. Being male or female is an important fact that these had explained especially in the area of male and female reaction to sexual arousal. The unit has also exposed you the common concepts in sexuality.

7.0 REFERENCES/FURTHER READINGS

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UNIT 2: FEMALE REPRODUCTIVE SYSTEM

Contents

1.0 INTRODUCTION

In the last unit you saw how human sexuality is an important factor in the propagation of the human species and the enjoyment of marital relationship between the spouses. In this unit you are going to learn in details the components of the female reproductive system and the functions of each organ that make up the female reproductive system.

2.0 INTENDED LEARNING OUTCOMES (ILOS)

By the end of this unit, you will be able to:

1. draw and label the female reproductive system.
2. explain the function of the female reproductive organs.
3. explain the female sexual functions.

3.0 MAIN CONTENT

1.1. The female Reproductive System

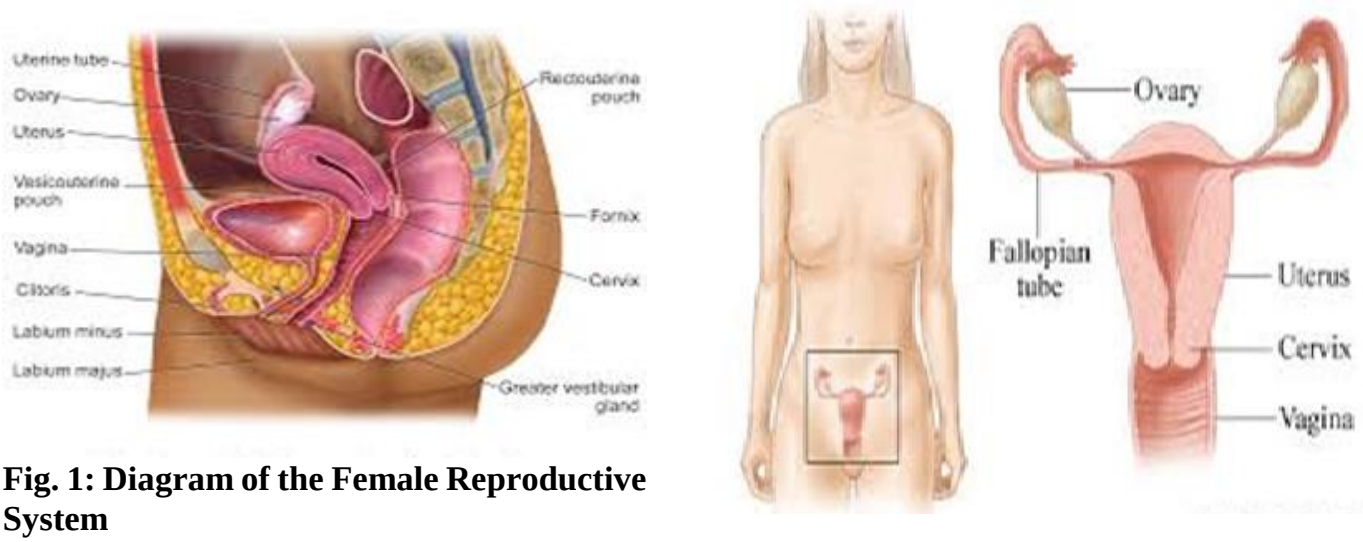

Fig. 1: Diagram of the Female Reproductive System

The female reproductive system comprises the primary sex organs (two ovaries) and the Secondary sex organs (two fallopian tubes, 1 uterus, vagina and the breast). An ovary forms an ovum which is transported through the fallopian tube into the uterus. If sperm is available it fertilizes ovum which beings to develop into a human child. After nine months the child is expelled from the uterus through the vagina. And breast milk from the breast is used to nurture the child.

1.2. **Ovaries:** They are glands and they resemble large almost in shape and in size. They are found at either side of the uterus. Like the testes, they contain germinal epithelium and this epithelium form a single layer of cells on the surface of the ovary. In the early stages of the development of the ovaries, some of the genetic EP Cells migrate into the mass of ovaries. After several divisions, they form large cells which become the ova. There are about 400,000 ova formed by two ovaries. These are present at birth or puberty. Each ovum in the ovary is surrounded by a layer of EP cells call granulosal cells. The ovum with the surrounded granulosal cells is called the primary follicle.

Functions:

Ovaries develop and mature the ova and discharge them into the pelvic cavity or they erupt them into the pelvic cavity. This discharge of ova is called the ovulation. They also secrete the female hormone oestrogen and progesterone.

Transport of the ovum:

The fallopian tube is attached to the uterus at its upper outer end. The tubes like uterus consist of two coats, the mucous coats (smooth muscles) and the serious layer. The most inner lining which is called the mucous coat or the mucosa is ciliated. At the distal end, the tube widens into what looks like a funnel called the infundibulum and this open outer and end has finger-like projections called timbral. The mucous lining of the tubes is continuous with the peritoneum. This is significant because the mucous of the tube is continues with the mucosa of the vaginal. The epithelium of the tubes has depression along the whole length and slow down the passage of the ovum. And the length of the tube is around 15m. the finger life projection hang over the ovary and the cilia on the mucosa of the tubes are always moving the fluid towards the uterus when the ovum is expelled into the pelvic cavity, it is carried into a fallopian tube through the wave-like action of the cilia and because of the cavity or depression in the EP of the tube movement of the ovum along the fallopian tube is slowed down. Take 3-7 days for the ovum to reach the uterus. Ovum must be fertilized between 8-24 hours on the average. Fertilization will usually occur at the upper portion of the tube.

Female Sterility:

About one out of every 15 female is sterile. Most cases of sterility are caused as a result of the previous infection. The infection results in the blockage of the tube because of the formation of scar tissues or ovaries because scar tissues such that they don’t produce any ova.

1.3. **Uterus:** The uterus is shaped like a pear. It is about 3 inches and two inches at its widest portion and about an inch thick. It has two parts, the body and a narrow

lower part called the cervix or neck. The body rounds into a bridge called the fundus.

The wall has three coats. An inner lining of mucous membrane called the endometrium. A compact surface layer of columnar epithelium, a spongy middle layer of loose connective tissue, a basal layer of dense connective tissue which attaches the endometrium to the myometrium. During menses and after delivery, the first two layers slough off. The second layer of the uterus is the myometrium- three layers of smooth muscle fibres that extend in all directions, some are longitudinal, transverse and oblique and because of this, it makes the uterus very strong and tightly woven. The myometrium is thickest at the funds and thinnest at the cervix which is important during labour. The transverse and longitudinal layer contract during labour. The external coat is made up of serous coat part of the peritoneum.

Functions: menstruation, pregnancy and labour.

1.4. **Vagina:** It lies between the bladder and the rectum. It is a tube and it is collapsible. It is capable of great distention. It is made up of mainly of smooth muscles and is lined with mucous membrane. The anterior wall is about two and half to three inches in length while the posterior is about three and half to four inches in length. In a virgin, a flood of mucous membrane called the hymen forms a border on the opening of the vagina.

Functions:

Vaginal is the organ of copulation and through it, the germinal fluid enters the female reproductive organ. It is the lower portion of the birth canal. It is the excreting duct for uterus secretion and menstrual flow.

1.5. **External genital (vulva):** Mons veneris or mons pubis: It is the pad of fat covered skin and lies over the symphysis pubis. When a person reaches puberty, it is covered by pubic hair. At adult, pubic hairs cover the mons pubis.

1.5.1. **Labia Majora**: it is found inside the labia majora closer to the vagina opening. It is also covered with skin and the two lips meet interiorly.

1.5.2. **Clitoris:** It is a small organ made up of erectile tissue. It is the female equivalent of the male penis. It is located behind the junction of the labia minora and Majora. There is a foreskin that covers the clitoris called prepuce or foreskin. In female circumcision, it is the clitoris and the labia that are removed. And the damage is done to the vaginal opening leading to obstructed labour.

1.5.3. **Bartholin's glands:** There are two of them- they are shaped like a bean. They are found on either side of the vaginal opening. These glands are the female equivalent of the male bulbourethral glands. They secrete a mucous lubricating fluid.

1.5.4. **Perineum:** It is a skin covered muscular region between the vaginal orifice and the anus. It is important clinically especially during labour. It can tear during labour, and if the tear is deep and extensive it can lead to damage of the anal sphincter. If the tear is rough, it is difficult to repair. If there is a

problem during labour episiotomy is conducted from the orifice for easy delivery. Episiotomy prevents jagged of the perineum.

1.6. **Breast:** It is important after delivery; they lie over the pectoral muscles. They are connected to these muscles by a large connective tissue. Their development during puberty is controlled by oestrogen and progesterone. The oestrogen-stimulated development of the ducts while progesterone stimulates the development of the secretory cells of the breast called the alveoli.

Functions:

Lactation is the main function of the breast. This is controlled in the following ways. Oestrogen and progesterone make the breast structurally ready for lactation. When the infant suckles the breast, the sucking action initiates the secretion of prolactin (lactogenic hormone by the pituitary gland) which stimulates the alveoli to secrete milk.

1.7. **Ovarian Hormones:**

1.7.1. **Oestrogen and progesterone** are responsible for the sexual development of the female and also for the female menstrual circle.

Functions of Oestrogen

They cause many types of cells in many parts of the body to proliferate (increase in number):

a) It causes the proliferation of the smooth muscles of the uterus so that the uterus of the post-pubertal female is two or three times larger than that of a child.
b) Because of the proliferation of the cells, the vagina gets lager.
c) Development of the labia-in the post-pubertal, it is more prominent.
d) Growth of the pubic hair.
e) Widening of the hips.
f) Conversion of the pelvic outlet into an avoid shape rather than funnel shape found in the male.
g) The growth of the breasts and proliferation of the gland-like components of the breast aid the deposition of fatty tissue in such female areas as hips, tights, etc.
h) Oestrogen also increases the growth rate of bones immediately after puberty. They also cause the growing portion of the bone to “burn out” within a few years so that growth stops. As a result, females grow very rapidly a few years after puberty and they stop growing. They have a very important effect on the endometrium of the uterus.

Functions of Progesterone

a) Its effect is mostly on the uterus and also on the breast; its function is to prepare the uterus for the implantation of the fertilized ovum.
b) It also inhibits the contraction of the uterus and prevents the uterus from expelling an ovum that is been implanted or a foetus that is developing.
c) Its effect on the breast is that it increases the secretive activity of the glands of the breast (alveoli).

3.8. Female sexual functions

1. **Menstruation:** Every menstrual cycle the internal walls of the uterus is prepared to receive and implant a fertilized egg. When this fails to happen the prepared linings of the uterus are sloughed off. This process of shedding the endometrium is known as menstruation and this happens to every mature woman approximately every 28 day. This period of time comes with some sort of discomfort to every woman but is more pronounced in some.
2. **Menarche:** Menarche is the onset or the first menstrual flow of a girl which usually occur between the ages 11 and 15, although some girls begin earlier or later. This variability in the onset of menarche is related to heredity, general health, and altitude and occurs during a time of other changes in body size and development. Menarche is the start of the menstrual cycle which ends at menopause which normally occurs in women between the ages of 45 to 55.
3. **Menstrual Circle:** During the first half of the circle, from about day one to day 14, oestrogens are only the ovarian hormones secreted in any appreciable quantity. But during the second half both, oestrogen and progesterone are secreted. The oestrogen helps the endometrium to grow in thickness. The epithelial cells on the surface and the second layer proliferate about the three folds. The endometrial gland increases greatly in depth and becomes more tortuous, because of this, the early phase is called the endometrial circle or proliferative phase. About the 14 days, the corpus luteum of the ovaries begins to secrete progesterone and it has the following effect on the endometrium:

a) The endometrial glands begin to secrete nutrients that can be used by a fertilized ovum before it becomes implanted.
b) Large quantities of fatty substances and glycogen are deposited in the deeper cells of the endometrium for the nutrition of the ovum if implanted.
c) Blood circulation, to the endometrium, is increased.
d) If however, towards the end of the circle implantation takes place, then the process of pregnancy and its development starts.

Process of Fertilization

When the egg is released, there must be intercourse with a man and the deposition of the sperm cells before fertilization. The number of chromosomes in the ovum and the sperm must be reduced to 23 by a process called **meiosis**.

There has to be the introduction of sperm into the woman through **copulation**. Once sperm is introduced, they begin upward motion into the uterus and they move at about the rate of 1-4mml per minute. Each ejaculation is about 3mls and may contain up to 120 million sperm and they all move to fertilize one ovum. The race and the first one that gets first penetrates the ovum. It is believed that some enzymes are involved in dissolving or digesting the protein that holds the cells of the ovum together. Ones one penetrates, ovum closes against other sperm.

Shortly after penetration, the tail of the sperm breaks off. The head of the sperm begin to swell to form a male pronucleus; the original nucleus of the ovum begins to form a female pronucleus. These two pronuclei combine to form 46 chromosomes. A few hours after the fusion of the pronuclei, the chromosomes reproduce and become paired off

and the production of daughter cells begin. The first cell division or cleavage occurs about 30 hours after the cell penetrates the ovum and successive divisions occur after 10-25 hours by the time the ovum reaches the uterus, it may continue about 11-32 cells, and about this time the cells begin to differentiate. By the time is one $1^{1/2}$ weeks old it has reached a stage called the blastocyst stage. A blastocyst is a hollow bulk of cells. It consists of an out layer of cells and an inner mass of cell. And the outer cells are called trophoblasts which secrete large quantities of enzymes that act on the protein (proteolysis) which digest the endometrium, and the trophoblastic engulfs it.

Physiological Obstacles and aids to fertilization

Some obstacles may reduce a couple's chance of pregnancy and they are:

a) The sperm's travel is relatively "upstream". The anatomical positioning of the female reproductive structures necessitates an "Uphill" Movement by the sperm.
b) The acidic level of the vagina is destructive to sperm. The low PH of the vagina will kill sperm that fail to enter the uterus quickly.
c) The cervical mucus is thick during most of the menstrual cycle. Sperm, penetration is more difficult, except during the few days surrounding ovulation.
d) The contoured folds of the tubal walls trap much sperm. These folds make it difficult for sperm to locate the egg. Many sperm are trapped in this maze.
e) The sperm must locate the cervical opening. The cervical opening is small in comparison to the rest of the surface are where sperm is deposited.
f) The distance sperm must travel is relatively long compared to the tiny size of the sperm cells. Microscopic sperm must travel about 18-20cm once they are inside the female.
g) Half of the sperm travel through the wrong fallopian tube. Most commonly, only one ovum is released at the time of ovulation. The two ovaries generally "take turns" each month. The sperm have no way of knowing which tube they should enter. Thus it is probably half will travel through the wrong tube.

There are also a variety of aids that tend to help sperm and egg cells to join and some of these are listed below:

a) An astounding number of sperm cells are deposited during ejaculation. Each ejaculation contains about a teaspoon of semen. Within this quantity are between 200-500 million sperm cells. Even with large numbers of sperm killed in the vagina, millions can move to the deeper structures.
b) Sperm are deposited near the cervical opening. Penetration into the vagina by the penis allows for the sperm to be placed near the cervical os.
c) The male accessory glands help to reduce the acidity of the semen. This environment helps the sperm be better protected in the vagina until they can manage to move into the deeper, more alkaline uterus and fallopian tubes.
d) Uterine contractions aid sperm movement. The rhythmic muscular contractions of the uterus tend to cause the sperm to move in the direction of the fallopian tubes.
e) Sperm cells move rather quickly. Despite their microscopic size, sperm cells can move relatively quickly just under $2_{1/2}$ cm an hour. Powered by sugar pollutions

from the male accessory glands and the whip-like movements of their tails, sperm can reach the distant 3rd of the fallopian tubes in less than 8 hours.

f) Once inside the fallopian tubes, sperm can live for days.
g) The cervical mucus is thin and watery at the time of ovulation. This mucus allows for better passage of sperm through the cervical opening when the ovum is released from the ovary.
h) The cervical mucus is thin and watery at the time of ovulation. This mucus allows for better passage of sperm through the cervical opening when the ovum is most capable of being fertilized.
i) Oestrogen levels are at their highest point just before ovulation and so may increase sex drive in the female at this point.

4.0 SELF-ASSESSMENT EXERCISE(S)

1. List five organs of the female reproductive systems?
2. Explain the following sexual functions in females: menstruation, menarche and fertilization?
3. Describe any three conditions that can obstruct fertilization?

5.0 CONCLUSION

The female reproductive system include all the organs that help in the reproductive function of the female. These organs perform functions that help in the sexual act that leads to the release of the ova and the deposition of the sperm cells which fuss with the ovum through fertilization and provide for the implantation and progression of pregnancy. There are some factor that also aid or obstruct this process.

6.0 SUMMARY

This unit has explained to you the many organs that make up the female reproductive system and the functions of each of the organs. The unit also identified some sexual functions of the female reproductive system and explained the process of fertilization and factors that aid or obstruct this process.

7.0 REFERENCES/FURTHER READINGS

Jones, R.E. & Lopez K.H. (2014). Human reproductive biology (4th ed.). Elsevier Inc.

UNIT 3: MALE REPRODUCTIVE SYSTEM

Contents

1.0 INTRODUCTION

In the last unit you were exposed to the female reproductive system and the functions and usefulness of all the organs of the female reproductive system. In this unit you are going to learn in details the components of the male reproductive system and the functions of each organ that make up the male reproductive system. It will also explain how these organs contribute to human reproduction.

2.0 INTENDED LEARNING OUTCOMES (ILOS)

By the end of this unit, you will be able to:

1. identify the organs of the male reproductive system.
2. explain the function of the male reproductive organs.
3. describe male sexual functions.

a. MAIN CONTENT

b. Male Reproductive System

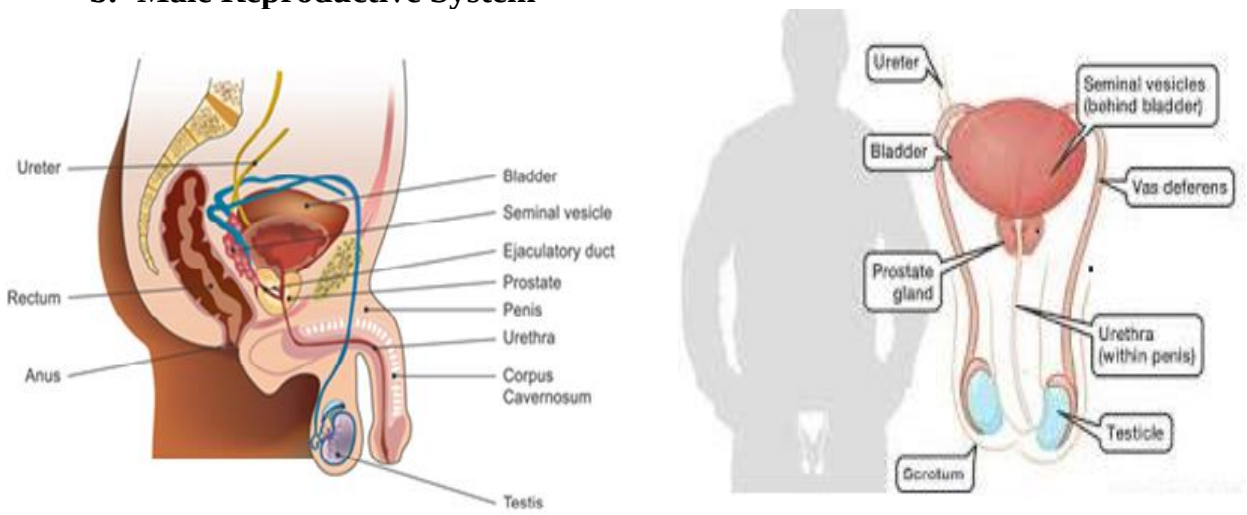

Fig. 1: Diagram of the Male Reproductive System

1.2. The testes: They are small glands with an oval shape. They lie inside the scrotum. Testes are made up of lobules, and each lobule contains a thin coiled tubule called the seminiferous tubules. We also have interstitial cells and the function of the testes are to produce sperm (spermatogenesis) and to the secret testosterone by the interstitial cells.

Testosterone Function

a) It promotes maleness-development and maintenance of male secondary sex characteristics.
b) It promotes the development of male sexual behaviour.
c) It promotes protein synthesis.
d) It promotes the development and maintenance of male accessory organs, e.g. Prostate, seminal vesicles.
e) In the testes, it stimulates the development of male sex organs.
f) It is responsible for the descent of the testes from the abdominal cavity into the scrotum (undescended testes-cryptorchidism).

1.3. Ducts

a) **Epididymis:** It is a simple thin coiled tube; it is encased in fibrous tissue and about 20 feet long. The epididymis has 3 sections. The head, tail and the body. It is an excreting duct where sperm must pass to the outside. It is responsible for the formation of sperm. It is also a storage space for sperm.
b) **The Vas Deference (seminal duct):** It is a tube and is an extension of the epididymis. It passes through the inguinal canal and goes over and behind the bladder and joins the duct from the seminal vesicles to form an ejaculatory duct. It is an excretory duct for spermatozoa. In male sterilization, the Vas deference is cut (Vasectomy) so that sperm is not excreted from the testes. There are ejaculatory ducts. They are two short tubes that pass through the prostate and ends in the urethra. It is formed by the union of the seminal duct and the duct that comes from the seminal vesicles.
c) **Urethra:** It is a small tube that leads from the floor of the bladder to the exterior. It is about 20 cm long. Immediately before the bladder, it passes through the prostate gland and the penis to the outside. It is also an ejaculating duct or a passageway for the semen. The fact that it passes through the prostate gland, it is significant to the adult and elderly male because when the problem of prostate arises it causes the swelling of the prostate, constriction of the urethra and urination becomes impossible (prostatitis).

1.4. Male Accessory Reproductive Glands

a) **Seminal vesicle:** They are convoluted patches that are found along the lower part of the posterior surface of the bladder, but directly in front of the rectum. They secrete a viscous fluid that is part of the semen. The fluid contains nutrients for sperm metabolism.

b) **Prostate Gland:** It is a tub-alveolar gland that lies just below the bladder. The urethra passes through a hole in the centre of the prostate.
Function: It secretes a thin milky serous fluid that becomes part of the semen. And this fluid helps to protect the sperm from the acidity in the male urethra. The fluid helps to flush the urethra before the sperm is ejaculated. It increases sperm mortality.

c) **Bulbourethral Glands (Cowper's gland):** These glands are small as the shape of peas. They lie below the prostate. A duct that majors about 2-5cm long connect it to the urethra.
Functions: It produces a mucous secretion that becomes part of the semen and helps to lubricate and produce lubrication during copulation. The mucous secretion also counteracts the acid present in the male urinary tract and the female vagina so that the sperm is not destroyed.

1.5. Supporting Structures

a) **Scrotum:** This is a skin covered pouch that is darker in colour than the rest of the skin. Internally the pouch is divided into two sections by a septum (a dividing wall). Each sack contains a testis, epididymis and the lower part of the spermatic cord. The scrotum keeps the penis cool. It is $3\text{-}5^0$ centigrade lower than the normal body temperature. It maintains normal temperature for spermatozoa. If testes do not descend into the scrotum, a situation called cryptorchidism occurs. Spermatogenesis will not occur because the abdominal temperature is too warm for sperm production.

b) **Penis:** Is a cylindrical mass of erectile tissue and the distal part of it is called the glans penis and it is covered by prepuce or foreskin. The urethra passes through it to the outside. It is an organ of copulation.

c) **Semen:** It contains sperm, plus secretion of the seminal vesicle and those of the prostate. Each ejaculation contains approximately 3 ml of semen. Each ml contains about 360 million sperms.

1.6. Male Sexual Function

a) **Erection:** Erection is the process of engorging of the three erectile cylinders in the penis with blood as a result of sexual excitement which causes the penis to be erect and turgid. The penis remains erect until the messages from the nervous system stop and the inflow of blood returns to normal. Erection facilitates copulation and the eventual release of the semen which contains mature sperms cells into a female.

b) **Ejaculation:** Ejaculation is the expulsion of semen through the penis to the outside of the body. Many people equate male orgasm with ejaculation. However, these two processes do not always take place simultaneously. Effective sexual stimulation of the penis through coital intercourse or otherwise triggers the process of ejaculation. Ejaculation happens in two phases emission phase and expulsion phases and these are function of the urethra and other muscles.

4.0 SELF-ASSESSMENT EXERCISE(S)

1. Describe briefly the functions of three organs of the male reproductive system?
2. Explain two male sexual function?

5.0 CONCLUSION

Sexual function in males are the function of the testes, the ducts, the glands and other support structures. These organs help in the production of the male germ cells and the process of erection and ejaculation which are activities that introduce sperm cells through copulation into the female bringing about fertilization and pregnancy.

6.0 SUMMARY

This unit presented the diagram of the male reproductive system. The functions of the different organs were also explained. All the organs work together to produce the male sexual functions which include the production of sperm cells, erection, copulation and ejaculation which are processes which help in the process of fertilization and pregnancy.

7.0 REFERENCES/FURTHER READINGS

Jones, R.E. & Lopez K.H. (2014). Human reproductive biology (4th ed.). Elsevier Inc.

MODULE 3: PREGNANCY, ADOLESCENT SEXUALITY, SEX EDUCATION AND FAMILY PLANNING.

Recall that in the last module you learnt about human sexuality and the reproductive systems. The primary aim of these activities and the structures is to propagate off-springs for the survival of the species. Pregnancy which is initiated by the fusion of the male and female germ cells and its implantation in the uterus for further development. This process goes through three main stage before a baby is produced and delivered. This module will take you through all the stages and also explain deferent forms of deliveries. You will also be taught some pregnancy related health conditions. In this module also you will learn about adolescents and their sexuality which is driven most times by curiosity with little or no understanding of sexuality and this might lead to health consequences which include teenage pregnancy, vesico-vaginal fistula and other condition. In order to prevent such conditions in adolescents and to equip them as responsible adults in matters of sexuality sex education is advocated which aims at preparing the school aged child for responsible adult role in relationships with the opposite sex. This module will also touch on family planning as a way of determining time and number of conceptions to safe-guard the health of the mother and child.

Unit 1: Pregnancy, Childbirth and Pregnancy-related Health Conditions
Unit 2: Adolescence Sexuality and Sex education.
Unit 3: Family Planning

UNIT 1: PREGNANCY, CHILDBIRTH AND PREGNANCY-RELATED HEALTH CONDITIONS

Contents

1.0 INTRODUCTION

In the preceding units, we looked at the structures of the human reproductive system and identified the male and female sexual functions. One of the main consequences of sexual activities is the begetting of children through the process of pregnancy and

childbirth. In this unit we are going to look at the process of pregnancy and situations that can improve or affect this process negatively or positively.

2.0 INTENDED LEARNING OUTCOMES (ILOS)

By the end of this unit you will be able to:

1. explain the processes that leads to pregnancy.
2. list the stages of pregnancy.
3. discuss the changes that take place at every level of foetal development.
4. list the types of delivery.
5. identify complications of pregnancy.

3.0 MAIN CONTENT

3.1. Pregnancy and stages of Pregnancy

3.1.1. **Pregnancy:** The period of pregnancy is that period when the mother nurtures the growing foetus in her womb. This process starts with the fertilization of the ovum by the sperm which happens in the fallopian tube. After the implantation of the zygote in the uterus the prenatal process now starts in full. Pregnancy at this stage can be dictated through positive pregnancy tests e.g. by urine or blood tests, and confirmed through a blood test, ultrasound, detection of foetal heartbeat, or an X-ray. The period of pregnancy is also known as gestation which lasts for about nine months, measured from the date of the woman's last menstrual period.

3.1.2. **Stages of pregnancy:** The gestation period is divided into three major periods which are three months long and are referred to as trimesters.

1) **First Trimester (week 1-12).** The first trimester the body undergoes a lot of changes because of the increased hormonal activities that is going on in the body. This in turn trigger off symptoms that are characteristic of the first trimester of pregnancy which might include: extreme tiredness, tenderness of breast and sticking out of the nipples, morning sickness (upsetting of the stomach and vomiting), abnormal craving or distaste for certain food, constipation, mood swings etc. This is a period intense cell division and multiplication. The embryo develops and comes with it with clear signs of pregnancy by the eight week the foetus grows in size and weight.
2) **Second Trimester (week 13-28):** This period seems to be easier on most women than the first. Some of the symptoms will drop e.g. Nausea and fatigue. The increased growth of the foetus leads to increase in abdominal size and also characterized by increased foetal movement. Some of the common things women experience at this period of pregnancy include: body aches and pain especially at the back, abdomen, groin and thigh pain, evidence of stretch marks on the breast, buttocks and the abdomen, darker skin around the nipple, a dark line from the belly button to the public hairline, carpal tunnel syndrome and itching around the abdomen. At this level the sex of the baby is distinguishable, the foetus increases in weight, foetal heart beat can be dictated, foetal head is

fairly developed, and at the end of the trimester the foetus is about sixteen inches and has an appreciable weight and with hairs on its head.

3) **Third Trimester (Week 29-40):** for some women at this period of gestation they still experience most of the discomfort felt in the 2nd trimester. Many experience difficulty in breathing and frequency of micturition this is because the baby is getting bigger and the weight is putting pressure on the mother's organs. Some common experience of mothers at this stage include shortness of breath, heartburn, swelling of the ankle, fingers and face, haemorrhoids, tenderness of breasts, leak a watery pre-milk called colostrum, false labour, sleep disturbance etc. At this stage if the foetus is male, the testicles must had descended into the scrotum, development of all the organic systems is almost completed, and the baby is gaining in size and weight.

First trimester (week 1-week 12)

At **four to five** weeks:

- Baby's brain and spinal cord have begun to form.
- The heart begins to form.
- Arm and leg buds appear.
- Baby is now an embryo and one-twenty-fifth inch long.

At 8th week

- All major organs and external body structures have begun to form.
- Your baby's heart beats with a regular rhythm.
- The arms and legs grow longer, and fingers and toes have begun to form.
- The sex organs begin to form.
- The eyes have moved forward on the face and eyelids have formed.
- The umbilical cord is clearly visible.

- At the end of eight weeks, your baby is a foetus and looks more like a human. The baby is nearly 1 inch long and weighs less than one-eighth ounce.

At 12 week

- The nerves and muscles begin to work together. The baby can make a fist.
- The external sex organs show if your baby is a boy or girl. A woman who has an ultrasound in the second trimester or later might be able to find out the baby's sex.
- Eyelids close to protect the developing eyes. They will not open again until the 28th week.
- Head growth has slowed, and your baby is much longer. Now, at about 3 inches long, the baby weighs almost an ounce.

Second Trimester week 13-28

At 16 weeks

- Muscle tissue and bone continue to form, creating a more complete skeleton.
- Skin begins to form. You can nearly see through it.
- Meconium develops in your baby's intestinal tract. This will be your baby's first bowel movement.
- The baby makes sucking motions with the mouth (sucking reflex).

- The baby reaches a length of about 4 to 5 inches and weighs almost 3 ounces.

At 20 weeks

- The baby is more active. Mother might feel slight fluttering.
- The baby is covered by fine, downy hair called lanugo and a waxy coating called vernix. This protects the forming skin underneath.
- Eyebrows, eyelashes, fingernails, and toenails have formed. The baby can even scratch itself.
- TheYour baby can hear and swallow.
- Now halfway through pregnancy, the baby is about 6 inches long and weighs about 9 ounces.

At 24 weeks

- Bone marrow begins to make blood cells.
- Taste buds form on your baby's tongue.
- Footprints and fingerprints have formed.
- Real hair begins to grow on your baby's head.
- The lungs are formed, but do not work.
- The hand and startle reflex develop.
- The baby sleeps and wakes regularly.
- If the baby is a boy, his testicles begin to move from

the abdomen into the scrotum. If the baby is a girl, her uterus and ovaries are in place, and a lifetime supply of eggs have formed in the ovaries.
- The baby stores fat and has gained quite a bit of weight. Now at about 12 inches long, the baby weighs about 1½ pounds.

3rd Trimester (week 29-40)

At 32 weeks

- The baby's bones are fully formed, but still soft.
- The baby's kicks and jabs are forceful.
- The eyes can open and close and sense changes in light.
- Lungs are not fully formed, but practice "breathing" movements occur.
- The baby's body begins to store vital minerals, such as iron and calcium.
- Lanugo begins to fall off.
- The baby is gaining weight quickly, about one-half pound a week. Now, the baby is about 15 to 17 inches long and weighs about 4 to 4½ pounds.

At 36 weeks

- The protective waxy coating called vernix gets thicker.
- Body fat increases. The baby is getting bigger and bigger and has less space to move around. Movements are less forceful, but mother will feel stretches and wiggles.
- The baby is about 16 to 19 inches long and weighs about 6 to 6½ pounds.

Week 37-40

Figure 3: Stages of Pregnancy (Source: https://www.womenshealth.gov/pregnancy/youre-pregnant-now-what/stages-pregnancy

- At 39 weeks, the baby is considered full-term. The baby's organs are ready to function on their own.
- As the mother near her due date, the baby may turn into a head-down position for birth. Most babies "present" head down.
- At birth, the baby may weigh somewhere between 6 pounds 2 ounces and 9 pounds 2 ounces and be 19 to 21 inches long. Most full-term babies fall within these ranges. But healthy babies come in many different sizes.

3.2. Childbirth

Childbirth is also referred to as parturition is the separation of the child from the mother when the child is fully developed to live on its own and this happens after approximately 9 months of gestation. The rhythmic contraction of the uterine muscles which leads to the expulsion of the baby from the womb is referred to as labour and it comes in three major Stages: the dilation, expulsion and placental stages.

a) **Dilation:** this is the opening of the cervix as a result of the contraction of the uterine walls. This process of dilation continues until the birth canal is open enough to allow passage for the baby.
b) **Expulsion:** This is that stage of labour when the head and other body parts of the foetus gains entrance to the opening of the cervix. This process is smooth for most mother but most times for primie gravidiae (first pregnancy) are given a cut (episiotomy) to prevent undue stretching or tearing of the tissues due to pressure of childbirth.
c) **Placental State:** This is the last stage of the child delivery process which occurs when the placenta is also expelled from the uterus.

3.3. Types of Delivery

a) **Breech Birth:** This happens when a baby instead of presenting with the head presents in a breech position which is presenting the bottom. Most babies who present breech position might lead to serious complication and are in most cases born through caesarean section.
b) **Forceps Delivery:** This type of delivery is the one achieved through mechanical means. It involves the use of forceps to grasp or clamp the head of the baby and help pull out the baby through the birth canal.
c) **Caesarean Section:** This is delivery achieved through a surgical process. This is most time used in delivery due to complication especially the inability of having normal delivery through the birth canal occasioned by narrow birth canal, large size of the baby or danger to the life of mother due to prolonged labour. It involves and incision into the abdominal cavity to extract the baby.

3.4. Complications of pregnancy

Some women experience health problems during pregnancy and delivery. Some of these problems involve the health of the mother or the health of the baby. Some of these problems include

a) **High Blood Pressure:** One of the commonest complication in pregnancy is high blood pressure which may decrease supply of oxygen and nutrients to the foetus through the placenta. This situation reduces growth of the foetus and might place the mother at risk of preterm labour or preeclampsia. High blood pressure that develops in pregnancy is called gestational hypertension and occurs typically occurs as the pregnancy advances through the second half.
b) **Gestational Diabetes:** this is increased blood sugar which is occasioned by the pregnancy situation. This is usual as a result of hormonal changes which cause the body to either not make enough insulin or use it normally. This situation leads to the building up of glucose in the blood stream. If this situation os not controlled it might lead in high gaining of weight by both the foetus and the mother and is a predisposing factor for high blood pressure in pregnancy.
c) **Infections:** Infections during pregnancy especially sexual transmitted infections might lead to complications in pregnancy both for the mother

and the baby. Some of these infections can be passed on the baby congenitally and might even affect the baby after birth or cause disabilities. These can be prevented or treated during preconception, antenatal and postnatal health care services. Some effect of infection on pregnancy include: pregnancy loss, ectopic pregnancy, preterm labour, low birth weight, birth defects including blindness and bone deformation or in some cases still birth.

d) **Preeclampsia:** This is one of the most serious complication of pregnancy which involve throws the pregnant mother into fits which may endanger her life and that of the unborn baby. The cause of this medical condition is unknown but most of the risk factor include: first pregnancy, history of preeclampsia in previous pregnancies, high blood pressure, diabetes, kidney disease and having first birth at 35 years or older.
e) **Preterm labour:** When labour starts before the 37th week of pregnancy it is referred to as preterm. Should the child be born at this time it has an increased risk of health problems because the organs of the body are not fully developed. Some of the risk factors for preterm labour include: infection, cervical issues, and previous preterm births.
f) **Miscarriage or spontaneous abortion** is the term used to describe the loss of pregnancy before the 20th week of gestation. Common signs of miscarriage include: spotting or bleeding through the vagina, cramps or loss of fluid or tissues through the vagina. While all bleeding or spotting might not imply a miscarriage, women experiencing such should consult their doctors.
g) **Still birth:** The loss of pregnancy after the 20th week of pregnancy is called a stillbirth. In most of the cases of still birth, health care providers can find no cause for the loss. However, the following are some factors that may predispose to still birth: chromosomal abnormalities, placental problems, poor foetal growth, chronic health issues of the mother, and infection.
h) Oth**er complications** of pregnancy may include the following: Severe, persistent nausea and vomiting, iron deficiency anaemia, etc.

Case Studies

You are expected to watch this YouTube video to learn more on the foetal developmental process during pregnancy. Link: https://www.youtube.com/watch?v=h82ltr84_Yg

4.0 SELF-ASSESSMENT EXERCISE(S)

1. What is pregnancy?
2. Briefly discuss the three main stages of pregnancy?
3. Clearly explain the three major stages in child birth?

5.0 CONCLUSION

Pregnancy is an intense period of physiological changes leading to the nurturing of a fertilized ovum implanted in the uterus to develop into a full grown baby which eventually is delivered. This process is wrought with a lot of physiological changes for the mother and development of the foetus. Pregnancy may also present with a lot of complications which might be a danger to the mother and her unborn child. This situation requires monitoring and prompt treatment to ensure the health of mother and child.

6.0 SUMMARY

This unit has exposed you to the process of pregnancy and the stages it goes through especially the developmental activities that take place during the three main phases of pregnancy and the changes that occur in the mother. The unit also exposed you to stages in labour and the different methods of delivery in place and why. It also explained the common complications that might be experience during pregnancy that might have health consequences on the health of the mother and her baby.

7.0 REFERENCES/FURTHER READINGS

Jones, R.E. & Lopez K.H. (2014). Human reproductive biology (4th ed.). Elsevier Inc.

UNIT 2: ADOLESCENT SEXUALITY AND SEX EDUCATION

Contents

1.0 INTRODUCTION

Adolescence is a period of intense sexual maturation that is not commensurate with mental development and therefore, a period wrought with a lot of danger related to sexuality because of the peculiarity of this stage of development. This disposition of the adolescents if not properly guarded might predispose them to so many health problem. Therefore, sex education is that training in sexuality that will help the youth navigate through this period of development safely and with optimum health.

2.0 INTENDED LEARNING OUTCOMES (ILOS)

By the end of this unit you will be able to:

1. define the concept of adolescence.
2. explain the characteristic of an adolescent.
3. identify changes that manifest during adolescence among the sexes.
4. explain teenage pregnancy and its consequences.
5. proffer way of preventing teenage pregnancy.
6. give reasons for the teaching of sex education in Secondary Schools.
7. mention approaches to teaching sex education.

1.0 Main Content

3.1. Concept of Adolescence

Adolescence is the period between childhood and adulthood. One of the events that occur during adolescence is the onset of puberty. Puberty is the time when a child begins to change from a boy to a man or from a girl to a woman and becomes physically capable of having children. Puberty starts when male and female hormones are released into the bloodstream. Hormones are chemicals that make the body grow and change. These hormones tell the sex organs to develop, they produce sexual feelings and they cause the development of secondary sex

characteristics. Puberty begins at different times for each individual and is accomplished by physical, social and emotional changes.

3.2. Changes

3.2.1. Physical Changes

One of the signs that puberty is beginning is the development of secondary sex characteristics (tabulated below).

Girls	Boys	Boys and Girls
Hips broaden	Shoulders broaden	Grow very quickly
Waist narrows	Muscles grow	Sometimes feel clumsy
Hair grows under arms and in pubic area	Hair grows on arms, legs, chest, face, underarms, and in pubic area	Perspire more and have body odour
Vagina and clitoris grow slightly	Penis and testicles grow larger (one testicle usually hangs lower than the other, this is normal)	Develop oily skin and some pimples.
Breast grow and develop (sometimes one breast grows larger than the other, this is normal)	Voice gets deeper.	Notice aching muscles and joints.
Vagina discharges white, sticky substance (this is the vagina's way of cleaning itself and is normal)		

3.2.2. **Social and Emotional Changes:** Adolescence is a period of immense changes in social and emotional states of the adolescent. Some of these changes include:

a) Desire to spend more time with friends than family.
b) Increased desire to be more independent.
c) Increased conflicts with parents.
d) Asking themselves "Who am I?
e) Attraction to the opposite sex

3.3. Teenage Pregnancy

Teenage pregnancy refers to pregnancy which occurs below the age of 18 years. Several factors are responsible for teenage sexual activities and consequently teenage pregnancy. These include early maturity, where girls and boys reach puberty at an early, early marriage and change in societal values, e.g. no more emphasis placed or virginity at marriage. Teens are often faced with a situation in which they must decide whether to have sex or not. Such decisions are often influenced by the following factors:

a) Desire for acceptance.
b) Need for affection.
c) Curiosity.
d) Influence of the mass media.
e) Relationship with parents and peers.
f) Desire for money and material things.

Saying "No" and keeping to it may be difficult. The use of verbal communication skills such as repeating the messages and non-verbal communications skills such as tone of voice, gestures, facial expression, and body posture help the individual to say "No" convincingly. Teenage pregnancy carries with it many risks. The risks involved in teenage pregnancy can be classified as: Physical, psychological, emotional and social.

Physical Risks include:

a) Poor health.
b) Risks associated with abortion.
c) Vesicovaginal fistula (VVF).
d) Sterility or childlessness
e) Sexually Transmitted Diseases (Chlamydia trachomatous, Gonorrhoea, Genital herpes, Syphilis, HIV/AIDS etc.).
f) Vesicovaginal fistulae (VVF).
g) Pelvic inflammatory disease (PID).
h) Long term health consequences, e.g. cancer of the cervix

The Psychological and Emotional risks include:

a) Guilt and permanent regret.
b) Doubt about one leading to loss of self-esteem.
c) Fear of the immediate and the future.
d) Disappointment.
e) Self-hatred.
f) The pain of exploiting or being exploited.
g) Having to marry someone you may not be truly in love with.
h) Using sex to cover up rather than get out of a relationship.

Social Risks include:

a) Having to stop vocational training abruptly.
b) Having no good job.
c) Poor financial status.
d) Low status.
e) Low quality of life.

Teenage pregnancy can be prevented by:

a) Abstaining from sex.
b) Saying "No" to sex and sticking to it.
c) Using family planning.
d) Develop strong values in the boy/girl relationship.

e) Avoid getting too close and being aroused.
f) Have a goal and work towards it.

When pregnancy does occur in a young girl, her parents need to be aware. A young mother has to receive proper counselling to prevent illegal abortion. It is most important for a young mother to receive ante-natal care. This will help her to learn how to care for herself and the unborn baby during pregnancy. Such care includes hygiene, nutrition, rest and workload. It also includes what to expect during pregnancy and delivery.

3.3.1. Care after delivery is also very important for teenage mothers. Such care includes:

a) Restoration to former life.
b) Contraceptive counselling.
c) Counselling to abstain from sex until she is ready to start a family, complete her education or vocation (secondary virginity).
d) Counselling to deal with frustration, guilt, and shame.
e) Counselling to deal with the challenges of parenthood.

3.3.2. Prevention of teenage pregnancy or "How to say No to Sex"

Teens may find themselves in a situation where they must make a difficult decision about having sex. Often, however, they are not prepared to do so.
Resistance training: Provides the opportunity for teens to practice these difficult situations to develop concrete strategies and responses.

Rules to remember in such situations are as follows:

a) Be assertive. Set limits and then keep to them.
b) Maintain your self-respect always.
c) Think about other things apart from sex that is, your future, parent, etc.
d) Show maturity. Maturity is the ability to control feeling and emotions as is expected from a fully developed person.
e) Learn to wait. Delayed action is important. Wait until you are ready.
f) Be responsible. Take responsibility for your behaviour at all times.

Ways of preventing teenage pregnancy

a) Abstain totally from sex by saying "No".
b) Use contraceptive if you do have sex.
c) Develop strong values in boys/girls relationships.
d) Avoid getting too close and being alone, aroused, or steamed up.
e) Have a goal and work toward it that is giving yourself something useful to think about always.
f) Make the right decision at the right time.
g) Above all, think before you act.

3.4. Sex Education

3.4.1. Definition

Sex education according to Illinois Sex Education Advisory Board (1971) is a comprehensive development programme extending from infancy to maturity which is planned and executed to produce socially and morally desirable attitude, practices and personal behaviour. It can also be defined as the education for creative living with an understanding of human sexuality as an integral inseparable part.

3.4.2. Goals

Sex education seeks to:

a) Help individuals develop a balanced view of sex.
b) Help them cope with their sexuality.
c) Help individuals see that sex is noble and good, and ordained by the creator and to know that it is not intrinsically based or bad, it is only so when perverted.
d) Understand the gender differences because this will help for a better relationship between the sexes.
e) Become individually and collectively involved in individual family and community sexual help.

3.4.3. Guiding principles

a) It may be advised to give sex education in mixed classes or group except when a subject that is peculiar to one gender is involved. Adapt your material and instructional methods to the situation.
b) In trying to share sex information, take into account the groups sources of sex information. Because this will help the teacher to identify the groups most important sources of information. It will also help the teacher to assess their access to various mass media or intercommunication channels. It will alert the teacher to potential communication conflict e.g. young people get the wrong idea from their peer group.
c) Design sex instruction programme that is easily understandable, culturally and socially correct, practical, relevant, technically correct and positive.
d) We must always make provision for evaluation to ascertain whether the intended sex behaviour is been practised.

3.4.4. Approaches to teaching sex education

The following are several approaches to teaching sex education in Schools:

a) As a separate subject or course in school: teaching it in this way allows for in-depth coverage of the subject.
b) You can teach it as part of other subjects: health science, biology. This approach will limit sex education to chance and discretion or way of the teacher. But since sex education is not formal in our schools, this is the only way of including it.
c) Teach it as an integrated course in almost every subject e.g.

1) Economics**:** Economic pressure on the family as a result of illegitimacy and abortion in the family.
2) Prostitution as a profession: its economic implication to society.
3) Food and nutrition: Nutrition during adolescent and pregnancy.
4) Social studies: Comparative sexual morals and practices, the effect on family social relation, promiscuity, illegitimacy, and child abuse, etc.

5) Biology: STDS and AIDS, Anatomy and physiology of the reproductive system.
6) Literature: sexual codes, morals, and practices in different society and ages, STDs, abortion, etc.

Through integrating sex into other courses one can highlight the relationships that exist between these schools subjects and sex education. Through this integration, people will see that sex pervades our entire life which includes economic, political, health, etc. The approach requires a clear definition of what is to be taught and there must be competent and trained teachers to integrate sex into courses.

Discussion

There has been raging controversies on whether it is morally right to teach sex education in both primary and secondary schools in Nigeria. As a health educator in which side of the divide are you? Are you for or against the teaching of sex education in school? Present points to support your position?

Case Studies

The World Health Organization (WHO) has made some recommendations on adolescent's sexual and reproductive health. Prepare a synopsis of these recommendations. See link on https://apps.who.int/iris/bitstream/handle/10665/275374/9789241514606-eng.pdf?ua=1

4.0 SELF-ASSESSMENT EXERCISE(S)

1. Who is an adolescent?
2. List five factor that can push adolescents to having sex?
3. What is sex education?
4. Mention five aims of teaching sex education?

5.0 CONCLUSION

Considering what we have been exposed to in this unit, it is clear that adolescents sexuality is delicate and therefore, needs to be protected through empowering the adolescent to make wise choices in matters of sexuality. This therefore, underscores the need for sex education which can be impacted through diverse approaches.

6.0 SUMMARY

We have learnt the adolescent and the peculiar characteristic which includes, physical, emotional, and others which affects their sexuality. The unit also showed us some of the health implications of unguarded sexual expression during adolescence and also recommended the teaching of sex education as an omnibus solution to the perceived danger of adolescent's sexual behaviour.

7.0 REFERENCES/FURTHER READINGS

WHO (2018). WHO recommendations on adolescent's sexual and reproductive health. Geneva, WHO.

UNIT 3: FAMILY PLANNING

Contents

1.0 INTRODUCTION

Unregulated fertility might become a problem to families and the nation at large in terms of overpopulation and pressure on available resources. Family planning is that approach to regulating fertility and making sure that pregnancy is by choice and not by accident or chance. This unit intends to explain to us the methods available for regulation of fertility and the need and advantages of doing so.

2.0 INTENDED LEARNING OUTCOMES (ILOS)

By the end of the unit you should be able to:

1. explain the concept of family planning.
2. mention the importance of family planning to the health of women.
3. describe major categories of family planning and list method in each category.
4. identify the major differences between artificial and natural family planning.

3.0 MAIN CONTENT

3.1. Concept of Family planning

People tend to misunderstand what family planning is all about. Initially, it is aimed at encouraging proper child spacing as an attempt to limit the number of birth when one had enough children or when the health of the mother is endangered. Today the concept means much more. It includes the limiting of birth which is now a national policy. It also means child spacing. It involves choosing when to start bearing. It also involves those who are infertile to help them have a child. It also involves helping somebody to get the sex he/she desires. Through family planning, people are assisted to make a rational decision without coercion, to have the number of babies they can afford to have, and about the timing and spacing of birth of the babies.

3.1.1. Importance of family planning to women

1. It improves the health of the mother and reduces the chances of death during the childbearing process.
2. To prevent vesicovaginal fistula among mothers below 18 years (VVF)
3. It also helps to safe guide the life of our children. E.g. If a woman is breastfeeding and she is pregnant breastfeeding will stop, which will, of course, affect the health of the child- malnutrition may be a very big health problem to the child.
4. It may be possible through family planning for mothers to choose the sex of their babies.
5. An unemployed woman can conveniently continue to work very efficiently without interruptions with family planning.

3.2. Methods of Family planning

3.2.1. Hormonal methods: (combine oral contraceptive) A combination of oestrogen and progestin. The effect is to suppress ovulation. It ticking the cervical mucus so that sperm cannot pass easily. It thins the endometrial lining as result implantation will not take place. This method is highly effective and less than 1-8 pregnancy will occur in a hundred users. Its effectiveness depends on the regularity of the user.

Advantages

1) It is very effective and easy to use
2) It is easily reversible by the user
3) **I**t reduces menstrual cramps and blood loss
4) It reduces iron deficiency and anaemia
5) It regularized menstrual period
6) If you start using this method, within two to three years of use it reduces by half the risk of getting ovarian or uterine cancers
7) It also protects the women against ovarian cyst and benign breast cyst
8) Tests have shown that it is safe for women with liver disease, malaria, sickle cell traits and schistosomiasis

Disadvantages

1) It requires regular dependable supply and strict daily pill taking.
2) It may reduce the quantity of breast milk if used within six weeks postpartum
3) It may increase the risk of getting external genital warts
4) It may cause nausea, breast tenderness, change in weight (increase in weight) migraine headaches, spotting, vaginal discharge, fatigue or depression, oily skin and pimples, may alter the woman sex drive (less responses or less libido) return to fertility may be delayed for several months after discontinuation of the pills.

3.2.2. Safety Issues and Warning Signs

The flowing class of people should not use the hormonal methods

- Women with gall bladder disease
- Women with cancer
- Serious cardiovascular problem or tend to it

- Use of the pill may increase the risk of stroke, heart attack and blood clot in the vascular system.
- It is not recommended to some women with epileptic lesion or fits
- People with severe migraine headache, or older women who smoke

When to Seek Medical Advice

- If she suffers severe pain or swelling in the legs
- If she experiences blurred vision
- If she experiences severe headaches
- If she experiences shortness of breath
- If she has yellowing of the skin or eyes (jaundice)

3.2.3. Types of Hormonal Family Planning Methods

a) Progestin (mini pill): This hormone contains very low doses of progestin. It works by thickening the cervical mucus and prevents the movement of sperm. Sometimes it also prevents ovulation. It also thins the lining of the endometrium.

Failure Rate: It is slightly less effective than the combined oral contraceptive. It has 3-10 failure rates per hundred users. Failure rate increase when the person fails to take the pills at the same time every day.

Advantages

a) It is effective, the use can be reversed easily by the user, and use has nothing to do with sexual intercourse.
b) It does not reduce the quantity of breast milk.
c) It is suitable for women that show contraindication for oestrogen e.g. women with HBP or people prone to headaches.
d) It could be used by diabetic women.
e) No problem in return to fertility.

Disadvantages

a) It requires a dependable supply and the pills must be taking at the same time every day.
b) It is less effective than the combined oral contraceptive and the IUD.
c) There is a higher risk of a person getting ovarian cyst when on this rather than on combined oral contraceptive
d) It frequently causes an irregular menstrual bleeding

Safety Issues

a) This method should not be by a person with vaginal bleeding which has been determined by a physician.
b) Seek medical care if you experience severe abdominal pains. This is because the pill creates a risk of having an ectopic pregnancy.

Recommended Practices

a) Before a client starts using this method they must undergo counselling to ensure that choice is based on the information and also to ensure the correct use of the contraceptive.
b) When it is possible, have the client screened by a trained health worker for contraindications such as HBP.
c) To ensure that no pregnancy occurs, let the client start the pill on the first day of the menstrual circle. If one pill or more are missed or taking late, the client should use a backup method to prevent pregnancy e.g. condom
d) Anybody on this contraceptive must go to a medical health provider for an annual medical check-up.

3.3.2. **Injectables:** These are contraceptives given in the form of injection; two popular ones are Depo-Provera, Noristerate. The active agent is progestin but some version used in Latin America may contain oestrogen.

Mechanism of Action:
They slowly release long-acting progestin to inhibit ovulation. The progestin thickens cervical mucus and can prevent penetration by sperm. Sometimes it thins the endometrium and prevents implantation. The usual dosage is 500 mg for every 3 months and 200gm for 2 months. It is highly effective. The failure rate is about 1 or less in one hundred users. Most failure is as a result of irregular use.

Advantages
a) It is highly effective and long-lasting.
b) Easy to use or deliver and use is independent of intercourse
c) It allows women with little private to practice birth control discretely
d) It may reduce the quantity of breast milk
e) It may reduce anaemia and may; have a possible advantage for women with sickle cell anaemia.

Disadvantages
a) Requires regular visit to the health clinic or pharmacy for injections.
b) It is dependent on supply and a provider for timely injection
c) Return to fertility is often delayed for several months, occasionally up to a year and cannot stop treatment if a side effect occurs.
d) It often causes missed periods, irregular bleeding especially in the first year of use. It causes weight gain, headache, abdominal discomfort, menstrual disturbances which occasionally could be so severe.

Safety Issues/Warning Signs:
Depo-Provera and Noristerate are contraindicated for women in the breast or genital tract cancer or with unexplained vaginal bleeding. The version that contains oestrogen will have the same contra-indications as a combined oral contraceptive. If the person on injectable gets dizzy, headache or heavy bleeding the person should consult a physician.

Recommended Practices:
Counselling is essential to explain alterations in a menstrual bleeding partner. The prospective client must be checked for contraindications; there is a need to stress that injections must be taken on time. Check for anaemia if there is prolonged or heavy menstrual flow. The first injection should be given immediately postpartum, or within the first five days of the menstrual circle to ensure that pregnancy does not occur. There is a need to go for an annual medical check-up**.**

Types of Injectables

1. **Norplant:** Norplant is made up of six rubber capsules that contained progestin levonorgestrel. The capsules are inserted under the skin of the woman upper arm under local anaesthesia. The progestin is released in a slow steady rate, and it suppresses ovulation, it thickens the cervical mucus to prevent penetration by sperm and may thin the endometrial lining preventing implantation. The failure rate is 0.2 pregnancies at 100 users. The method is effective for 5 years and may become slightly less effective after several years of use; for women who weigh more than 70 kg (154 pounds).

Advantages

1) Highly effective
2) It is reversible because the implant can be removed if the side effect develops
3) It is easy to use and the effect is long term. The use is independent of intercourse
4) It is appropriate for users who need a reversible method but finds other methods difficult to use because they lack a reliable source of contraceptive supply
5) Return to fertility prompt following removal.
6) It does not interfere with breastfeeding
7) It may reduce anaemia and may be appropriate when oestrogen is contraindicated.

Disadvantages

1) It is costly at first
2) It requires access to trained personnel with appropriate equipment for insertion and removal.
3) Medical follow up is also needed and removal is more difficult than the implantation.
4) It may cause irregular menstrual bleeding, missed period etc.
5) Other problems associated with misused include the following: headache, dizziness, weight gain, is an ovarian cyst.

Safety Issues:

Contradicted for women with unexplained vaginal bleeding. Seek medical attention if there is an infection at the implantation site, dizziness, headache, heavy bleeding and severe lower abdominal pain.

Recommendation Practices:
Implant is inserted during menstruation or within a week of the start of menstruation to ensure that no pregnancy occurs. It can also be inserted post-abortion. The sterile procedure must be maintained for insertion. Trained providers are to remove the implant when requested.
The client should understand the need to remove the implant after 5 years. An annual visit to the health care provider is mandatory.

2. **Intra-Uterine Devices (IUD):** These devices are widely available in most countries that have planning services. There are approximately 85 million users all over the world and the majority has been found in China. There are about 8 major types of IUD. However, three remain the most popular. One of such is the Lippes loop which is the most successful of the first generation of IUDs. Others are the new plastic-based IUD which releases copper e.g. copper T 38OA and the type that releases natural (progestagen) or synthetic progestin but is not commonly available.

   The Mechanism of Action:
   IUD is placed in the uterus and they work by creating conditions that immobilize sperm thus preventing them from fertilizing the ova. They can also create conditions that are inhospitable to ova before and after fertilization but must be noted that fertilization is rare with copper-bearing (IUDS). Hormone releasing IUDs thickens cervical mucus and prevent the passage of sperm and they also thin the endometrial lining. Effectiveness varies from one year for progestagen to an indefinite period for lippies loop. Then copper-bearing IUD is effective for 4-8years.

   Failure rate:
   The lowest failure is observed in copper and hormone-releasing IUDs. For the best IUDs, typical use results in less than 1 pregnancy per 100 users in the first year. Expulsions occur typically 2 to 8% of users in the first year. Expulsions are higher for IUD insertions for 1-2 days postpartum and those done by inexperienced providers.

   Advantages
   1) They are highly effective.
   2) They are long term, easy to use, and with no-re-supply problems.
   3) It is reversible; use is private and independent of intercourse.
   4) When the cost is spread over several years it serves, it is found that the cost is generally low except for progestaert.
   5) It has higher effectiveness in general use than birth control pills.

6) It is appropriate for when who want no more children or for those whose health may be endangered by un-intended pregnancy.

Disadvantages

1) The initial cost is high-It requires a skilled practitioner with appropriate equipment and facilities.
2) Revisable through microsurgery which is expensive and often not available and not always successful.
3) It is riskier than male sterilization.
4) The method should be considered permanent.
5) Temporary complains or minor complications following the procedure include pain or discomfort.

3.2.4. **Vasectomy or Male Sterilization**: Vasectomy is a surgical procedure where the vas deferens is cut and tied so that semen can't be carried towards the urethra for ejaculation. Vasectomy is not as widely available and accepted as female sterilization. It is estimated that 45 million people worldwide use it. The largest users are China, India, USA, Canada, and the United Kingdom. The use is very rare in African.

Mechanism of action: The procedure blocks the vas deference and thus prevents the movement of spermatozoa from the testicles to the prostate gland where they mature. This also prevents ejaculation. It is a minor surgical procedure usually done under local anaesthesia.

Failure rate: Typical use result in 0.25-less than 1 pregnancy to 100 users in the first year. The procedure is not immediately effective. One must use another method of contraceptive until all sperms are expelled. This will take about 12-15 weeks.

Advantages

1) It is highly effective.
2) It is safe, it is a simple procedure and it is safer than female sterilization.
3) It is independent of sexual intercourse.
4) It is a one-time procedure that does not require medical supervision.
5) Today there are no more side effects.
6) It is appropriate for men who are sure they don't want children again.
7) It is also appropriate for men whose wife's life is at risk in case of any pregnancy.

Disadvantages

1) It requires a skilled health practitioner, who has appropriate equipment and facilities.
2) Reversal through microsurgery is very expensive, and not always available.
3) The method should be considered a permanent procedure.

4) There are many primary and secondary complications such as pain, bruises, bleeding.

Safety Issues and Warning Signs:
Uncommon but serious complain may include Haematonia and infection following the operation. A client should be advised to seek medical attention if the person experiences fever above 37 degrees and if there is an infection, blood clot in the scrotum or excessive swelling.

Recommended Practices:
The availability of alternative methods, education, counselling and fully informed choice is necessary to ensure those only individuals who certainly want to no more children undergo a vasectomy.
Client's satisfaction with services should be routinely accessed or evaluated to make sure that counselling and informed choice procedures are working properly. Appropriate acceptance of the procedure, gentle handling of tissues, local anaesthesia, and post-operative instruction about how to take care of oneself or health and information about warning signs are essential. They must be provided.

3.3. Barrier Methods

1. **Diaphragm:** Shallow rubber dome about two or four inches in diameter stretched over a flexible spring in its outer ring. It is usually inserted over the cervix. It traps sperm in the vaginal tract and prevents them from entering the uterus or fallopian tubes. It should be inserted six hours before intercourse and must be left in place for six hours after intercourse. Repeated intercourse requires additional spermicide.

Advantages
1) No serious risks
2) May decrease risk of cervical cancer
3) May offer some protection against STDs
4) One hundred per cent reversible

Disadvantages
1) May forgot to insert
2) May have allergic reactions
3) May increase risk of the toxic-shock syndrome

Contraindications
1) Certain abnormalities of the uterus or vagina
2) History of toxic shock syndrome

2. **Cervical cap:** Timble-sized and the shaped device made of rubber or plastic. The cervical cap is placed over the cervix and held in place by suction. It is used with spermicide. This help to prevent fertilization by not allowing sperm to enter

the uterus and fallopian tubes. The insertion must remain for six to eight hours after ejaculation.

Advantages

1) No serious risks
2) Does not have to be removed after each episode of intercourse.
3) May reduce the risk of cervical cancer
4) One hundred per cent reversible

Disadvantages

1) Can irritate the cervix after prolonged use.
2) Requires more skill for insertion than a diaphragm.
3) Allergic reactions may develop
4) The pelvic inflammatory disease may develop

Contraindications: Should not be used in cases of:

1) Cervical, vaginal, or pelvic infections.
2) Abnormal pap smear.
3) History of toxic shock syndrome

3. **Vaginal Contraceptive Sponge**: This is a soft, polyurethane pad containing a spermicide moistened and inserted into the vagina, to cover the cervix. This must remain inserted for at least six hours after intercourse and for as long as twenty-four hours. It is often discarded after use. The vaginal sponge works by killing, blocking cervix, and absorbing sperm.

Advantages

1) Appears to present no health risks.
2) May improve vaginal lubrication.
3) May provide some protection against PID.
4) Effective during multiple acts of intercourse.
5) Absorbs vaginal secretions during intercourse.
6) One hundred per cent reversible.

Disadvantages

1) May produce vaginal odour and discharge.
2) May discourage cunnilingus, which some view as a disadvantage.
3) May be torn or shredded by unsuccessful attempts to remove.
4) Has caused a few cases of toxic shock syndrome.

4. **Condoms:** A cyclical sheath made of rubber or animal skin, which is unrolled over an erect penis. Spermicide condoms are available

Advantages

1) No serious side effects.
2) Decreases the risk of either partner contracting STDs'
3) May decrease female's chance of developing cervical cancer.

4) Only available male contraceptive, which is effective and 100 per cent reversible..
5) Some evidence that when used during pregnancy, may decrease the chances of amniotic fluid infections and intrauterine infections that can lead to miscarriage.

Disadvantages

1) Reduces penis sensitivity.
2) Interruption of foreplay.
3) May cause allergic reactions.
4) Heat and cold can damage the condom.
5) Failure to maintain an erection for placement and removal will reduce effectiveness.

5. **Spermicides:** These are chemicals placed high into the vagina with a tube or plunger before intercourse to prevent fertilization (by destroying sperm or preventing sperm from passing through uterus). This should not be inserted more than thirty minutes before intercourse.

Advantages

1) No serious side effects for the user.
2) Foams may improve vaginal lubrication.
3) Foams may provide some protection against STDs and PID.
4) Prolonged use may cause vaginal infections.

Contraindications: Allergic reactions to spermicides

3.3.1**. Traditional Methods**

1. **Douching:** This is the washing out of the vagina immediately after having sexual intercourse with the hole of washing out all the sperm. This method is not effective because sperm travel very rapid and some would have already travelled to the uterus by the time the woman can douche.
2. **Rhythm:** The idea of this is that a woman keeps track of her last menstrual cycle and tries to figure out the day when she is least likely to become pregnant (the safe days) to have sexual intercourse. Since sperm lives from 3-5 days, it can be easy for women to get pregnant when they are *safe* even during their menstrual period. Young girls often do not have a regular menstrual period and do not ovulate regularly, so this method can be especially problematic.
3. **Withdrawal (Coitus Interruptus):** Withdraw means removing the penis from the vaginal before ejaculation takes place. Since a man may produce some semen soon after erection, the withdrawal method is not effective.

3.3. Abortion

Menses inducing drug RV-486 is the first anti-progestin drug approved specifically to induce menses and for very early pregnancy termination.

Condition Necessary to induce: It is most effective when it is used with a small dose of synthetic prostaglandin. This procedure has been developed in France and it is not generally available outside France.

Methods of Abortion

1. **Vacuum aspiration and Dilation Curettage (D & C)**

These methods are the most widely used methods for termination of pregnancy in the first trimester (1- 3 months), 2nd trimester – (4- 6 months), 3rd trimester (7-9 months). In some countries, they consider the vacuum aspiration method as a legal menstrual regulatory method rather than an abortion if it is done within the first six weeks of confirmed pregnancy. It is estimated that 45-60 million legal and illegal terminations occur annually worldwide. But of the legal procedure, about 90% are carried during the first trimester which is mostly by D & C or Aspiration.

Mechanism of Action:

Newer vacuum aspiration technique is preferable to D & C. in a vacuum, uterine content is removed through small metal or plastic tools with or without cervical dilated and content of the uterus is removed by scrapping. Both methods are also used to treat septic or incomplete abortion.

Advantages

Vacuum aspiration is safe when performed by a trained person and equipment well sterilized.

1) It does not have a negative effect in the future.
2) It does not require local anaesthesia and can be performed in a matter of minutes.
3) It is a safe procedure

Disadvantages

1) The cost may be compared with other contraceptives.
2) Some vaginal bleeding, discharge and discomfort may follow the procedure.

Safety Issues

1) Bleeding and infection requiring treatment may occur but are not common.
2) Injury to cervix and uterus may occur.

Warning Signs:

Seek medical attention, if the following occurs: fever, chills, muscular and abdominal pains, fatigue, tenderness in the abdomen, bleeding, if the resumption of menses delays up to six or more weeks after the procedure, and if there is a vaginal odour.

Discussion

What are your preferences with regard to the use of artificial or natural family planning methods? Why do you prefer one above the other? Support your position with convincing and verifiable facts?

4.0 SELF-ASSESSMENT EXERCISE(S)

1. What is family planning? Mention five method of family planning?
2. Identify major categories of family planning?
3. What are the advantages and disadvantages of condom use?

5.0 CONCLUSION

Family planning has become an integral part of fertility control in Nigeria. There are many methods available including both natural and artificial method. Each of these methods have their merits and demerits. Which can be used after due consideration of its effectiveness and the users body tolerance.

6.0 SUMMARY

In this unit we have considered what is family planning and its benefit to spouses. The unit also indicate the methods of family planning highlighting the advantages and disadvantages of each method. You were also exposed to safety measures in using these methods.

7.0 REFERENCES/FURTHER READINGS

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ANSWERS TO SELF-ASSESSMENT QUESTIONS

Module 1: Unit 1

1. *A family is a basic unit of the society that is made of a man, his wife(s) and his children. The family has the responsible for supporting, caring for and preparing children for adulthood.*

Common types of families in Nigeria include: Nuclear families, extended families, monogamous families, polygamous families, reorganized family and consanguine families.

2. *The three main categories of members of a family include, Husband, Wife and Children. Their roles are:*

    I. *Father: Responsible for providing food, shelter and money for the family; Making important decisions.*

    II. *Mother: Preparing food and keeping the house in order; nurturing and raising the children, teaching them morals and values.*

    III. *Children: Obeying their parents; Girls help in the household and particularly in the kitchen; Boys help on the farm or with father's occupation.*

3. *Functions of the family include:*

    I. *Giving names and status to family members especially the children.*

    II. *Basic care of the children, and in many cultures of the elderly and relatives with disabilities.*

    III. *Socialization and education of the children and parents.*

    IV. *Protection of family members.*

    V. *Emotional care and recreation of family members.*

Module 1, Unit 2

2. *The family plays a couple of roles in ensuring the wellbeing of every member of the family and that includes:*

    I. *The family recognizes the interruption to healthy development. E.g. the failure of a child to thrive, illness in the family.*

    II. *The family monitors the concept of illness and health.*

    III. *Deciding how to seek health care for the family.*

    IV. *Dealing effectively with health and non-health crisis. Health crisis includes incapacitating illness, death in the family, childbearing, and hospitalization. Non-health crises include- unexpected unemployment or retirement, going on transfer, divorce, marital disagreement.*

V. *Providing nursing care to sick, disable or dependent member of the family. This includes care of minor health problems, personal care of the very young or the old, care of people before or after hospitalization. It also includes care of those parents who are ambulatory and require special treatments that can be provided at home.*

3. *The following are some aims of maternal and child health care:*

   I. *Every expectant mother maintains good health and is prepared physically and psychologically to look after her child and that the expectant mother goes through the experience of normal delivery and bears a healthy child.*

   II. *Every child grows up in health surrounding and receives proper nourishment and adequate protection from disease.*

   III. *That sickness is detected and treated early before it becomes chronic or serious.*

   IV. *To ensure that communicable diseases are controlled in the vulnerable age by taking adequate preventive measures and by health education.*

   V. *To ensure that simple statistical data on morbidity and mortality are maintained at local, federal and state government.*

4. *Some activities that can promote utilization of maternal and child health care include:*

   I. *We must have facilities and they should be accessible to mothers and their children.*

   II. *A lot of health promotions could be achieved through health education; we can encourage mothers to begin to take responsibility for their health and the health of their children. Educate them on the available services. So that they can make proper use of them.*

   III. *Encourage early and regular attendance at antenatal clinics, so that problems can be detected early.*

   IV. *Help mothers to understand that childbearing before the age of 18 and after the age of 35 is a risk to both the mother and the child.*

   V. *Encourage proper child timing and spacing.*

Module 1, Unit 3

2. *Marriage is a legal covenant through which a woman and a man become husband and wife.*

Five variations of male/female relationships include:

a) *Group marriage: Where several women are married to several men. People in the community are allowed to have free sex with many others in the community. Effect: Jealousy and STDs.*

b) *Polygamous marriage: A marriage of one man to several women. Effect: STD, jealousy, multiple sex partners.*

c) *Polyandry: a woman married to several men. Effect: multiple sex partners.*

d) *Sororate polygamy: A man makes a contract agreement to take all his wives from the same kin groups.*

e) *Monogamy: this is marriage between a man and a woman.*

3. *In choosing a spouse the following factors can be considered:*

   a) *Actual choosing of whom to marry*

   b) *People get into the process of knowing each other better which involves joint participation in all kinds of activities (dating).*

   c) *The intimacy which involves being at ease with each other begins and trying to gain parental approval.*

   d) *Medical examination including a blood test, genetic examination and HIV test and marriage counselling.*

   e) *Formalizing the marriage contract.*

4. *Marital adjustment can be affected by the following:*

   a) *Sexual gratification: Studies have shown that lack of sexual gratification affects sexual relationship especially on the part of the woman.*

   b) *Finances: How does a couple spend the money that comes into the family? Should they share a joint account or separate account? A joint account is encouraging.*

   c) *Relationship with In-laws (parents): Couples must get themselves familiarized with both parents, old and new friends.*

   d) *Communication is very important in a marriage. Without communication minor irritation could lead to a very big problem.*

Module 2, Unit 1

2. *Sexuality is the sum total of the characteristics that differentiate a male from a female which affects the whole personality from childhood to old age. It involves our sexual development, expressions, culture, values, genders identity and roles, our emotions, attitudes and health.*

3. *The three main phases of sexual response are:*

   a) *The excitement phase which involves initial erection and expansion of reproductive organs.*

   b) *The plateau phase during which the organs continue to swell*

(a) In the female, the clitoris withdraws into its hood and the organism platform causes the vaginal opening to narrow

(b) In the male, the penis increases in size and a small amount of seminal fluid may appear.

c) The orgasmic phase involves rhythmic muscular contractions and a sudden release of sexual tension resulting in orgasm. This is followed by a period known as resolution phase which involves a gradual return to the pre-excited state.

4. *Three sexual dysfunctions include:*
    a) *Anorgasmia: Inability to reach orgasm.*
    b) *Erectile dysfunction: male's inability to have an erection of sufficient strength and duration to perform intercourse.*
    c) *Premature ejaculation: This involves the expulsion of sperm before the sexual satisfaction of one or both partners.*

Module 2, Unit 2

2. *These are some of the organs of the female reproductive system. They are: ovary, fallopian tube, uterus, vagina, vulva, etc.*
3.
    a) *Menstruation: This is the process of shedding the endometrium or the sloughing off of the linings of the uterus which was prepared to implant a fertilized egg. This happens to every mature woman approximately every 28 day.*
    b) *Menarche is the onset or the first menstrual flow of a girl which usually occur between the ages 11 and 15, although some girls begin earlier or later.*
    c) *Fertilization is the fusion of the male and female germ cells (the ovum and a sperm cell) to form a zygote which starts the life of the foetus.*
4. *Some obstacles may reduce a couple's chance of pregnancy and they are:*
    a) *The sperm's travel is relatively "upstream". The anatomical positioning of the female reproductive structures necessitates an "Uphill" Movement by the sperm.*
    b) *The acidic level of the vagina is destructive to sperm. The low PH of the vagina will kill sperm that fail to enter the uterus quickly.*
    c) *The cervical mucus is thick during most of the menstrual cycle. Sperm, penetration is more difficult, except during the few days surrounding ovulation.*

Module 2, Unit 3

1. *Functions of the organs of the male reproductive organs include:*

a) *Scrotum: This is a skin covered pouch that is darker in colour than the rest of the skin which contain the testes. The scrotum keeps the penis cool by maintains normal temperature for spermatogenesis.*

b) *Penis: Is a cylindrical mass of erectile tissue and the distal part of it is called the glans penis and it is covered by prepuce or foreskin. The urethra passes through it to the outside. It is an organ of copulation.*

c) *Epididymis: It is a simple thin coiled tube; it is encased in fibrous tissue and about 20 feet long. The epididymis has 3 sections. The head, tail and the body. It is an excreting duct where sperm must pass to the outside. It is responsible for the formation of sperm. It is also a storage space for sperm.*

2. *Two male sexual functions are:*

a) *Erection: Erection is the process of engorging of the three erectile cylinders in the penis with blood as a result of sexual excitement which causes the penis to be erect and turgid. The penis remains erect until the messages from the nervous system stop and the inflow of blood returns to normal. Erection facilitates copulation and the eventual release of the semen which contains mature sperms cells into a female.*

b) *Ejaculation: Ejaculation is the expulsion of semen through the penis to the outside of the body. Many people equate male orgasm with ejaculation. However, these two processes do not always take place simultaneously. Effective sexual stimulation of the penis through coital intercourse or otherwise triggers the process of ejaculation. Ejaculation happens in two phases emission phase and expulsion phases and these are function of the urethra and other muscles.*

Module 3, Unit 1

2. *Pregnancy is a period when the mother nurtures the growing foetus in her womb. This process starts with the fertilization of the ovum by the sperm which happens in the fallopian tube. After the implantation of the zygote in the uterus the prenatal process now starts in full.*

3. *The gestation period is categorized into three stages, namely:*

a) *First Trimester (week 1-12). The first trimester the body undergoes a lot of changes because of the increased hormonal activities that is going on in the body. This in turn trigger off symptoms that are characteristic of the first trimester of pregnancy which might include: extreme tiredness, tenderness of breast and sticking out of the nipples, morning sickness (upsetting of the stomach and vomiting), abnormal craving or distaste for certain food, constipation, mood swings etc. This is a period intense cell division and multiplication. The embryo develops and comes with it with clear signs of pregnancy by the eight week the foetus grows in size and weight.*

b) *Second Trimester (week 13-28): This period seems to be easier on most women than the first. Some of the symptoms will drop e.g. Nausea and fatigue. The increased growth of the foetus leads to increase in abdominal size and also characterized by increased foetal movement. Some of the common things women experience at this period of pregnancy include: body aches and pain especially at the back, abdomen, groin and thigh pain, evidence of stretch marks on the breast, buttocks and the abdomen, darker skin around the nipple, a dark line from the belly button to the public hairline, carpal tunnel syndrome and itching around the abdomen. At this level the sex of the baby is distinguishable, the foetus increases in weight, foetal heart beat can be dictated, foetal head is fairly developed, and at the end of the trimester the foetus is about sixteen inches and has an appreciable weight and with hairs on its head.*

c) *Third Trimester (Week 29-40): for some women at this period of gestation they still experience most of the discomfort felt in the 2nd trimester. Many experience difficulty in breathing and frequency of micturition this is because the baby is getting bigger and the weight is putting pressure on the mother's organs. Some common experience of mothers at this stage include shortness of breath, heartburn, swelling of the ankle, fingers and face, haemorrhoids, tenderness of breasts, leak a watery pre-milk called colostrum, false labour, sleep disturbance etc. At this stage if the foetus is male, the testicles must had descended into the scrotum, development of all the organic systems is almost completed, and the baby is gaining in size and weight.*

4. *Three major stages of delivery include:*

a) *Dilation: this is the opening of the cervix as a result of the contraction of the uterine walls. This process of dilation continues until the birth canal is open enough to allow passage for the baby.*

b) *Expulsion: This is that stage of labour when the head and other body parts of the foetus gains entrance to the opening of the cervix. This process is smooth for most mother but most times for primie gravidiae (first pregnancy) are given a cut (episiotomy) to prevent undue stretching or tearing of the tissues due to pressure of childbirth.*

c) *Placental State: This is the last stage of the child delivery process which occurs when the placenta is also expelled from the uterus.*

Module 3, Unit 2

1. *Adolescence is the period between childhood and adulthood. One of the events that occur during adolescence is the onset of puberty. Puberty is the time when a child begins to change from a boy to a man or from a girl to a woman and becomes physically capable of having children.*

2. *Some of the factors that may push adolescents into having sex may include:*

a) *Desire for acceptance.*

b) *Need for affection.*

c) *Curiosity.*

d) *Influence of the mass media.*

e) *Relationship with parents and peers.*

3. *Sex education is a comprehensive development programme extending from infancy to maturity which is planned and executed to produce socially and morally desirable attitude, practices and personal behaviour.*

4. *Aims of sex education include the following:*

a) *Help individuals develop a balanced view of sex.*

b) *Help them cope with their sexuality.*

c) *Help individuals see that sex is noble and good, and ordained by the creator and to know that it is not intrinsically based or bad, it is only so when perverted.*

d) *Understand the gender differences because this will help for a better relationship between the sexes.*

e) *Become individually and collectively involved in individual family and community sexual help.*

Module 3, Unit 3

1. *Family planning are measures taken to limit birth for child spacing for the health and wellbeing of mothers, their child and family. It involves choosing when to start bearing. It also involves those who are infertile to help them have a child.*

Some methods of family planning include: use of hormones, condom, cervical cap, IUCDs, Spermicidal foams, vasectomy etc.

2. *Major categories of family planning include: hormonal methods, vasectomy, barrier methods, traditional methods and abortion.*

3. *Advantages and disadvantages of condom use include:*

Advantages

1) No serious side effects.

2) Decreases the risk of either partner contracting STDs'

3) May decrease female's chance of developing cervical cancer.

4) Only available male contraceptive, which is effective and 100 per cent reversible..

5) Some evidence that when used during pregnancy, may decrease the chances of amniotic fluid infections and intrauterine infections that can lead to miscarriage.

Disadvantages

1) Reduces penis sensitivity.

2) Interruption of foreplay.

3) May cause allergic reactions.

4) Heat and cold can damage the condom.

5) Failure to maintain an erection for placement and removal will reduce effectiveness.