University of Baghdad
College of Nursing

Assessment of Secondary School Female Students' Knowledge about Reproductive Health in AL-Basra City

A Thesis Submitted By

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To the Department of Maternal and Neonate Nursing / College of Nursing- University of Baghdad

In Partial Fulfillment for Requirements of the Degree of Master in Nursing Sciences for Maternal and Neonate Nursing Specialty

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April/ 2019 Shaaban/1440

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

((وَاللَّـهُ أَخرَجَكُم مِن بُطونِ أُمَّهاتِكُم لا تَعلَمونَ شَيئًا وَجَعَلَ لَكُمُ السَّمعَ وَالأَبصارَ وَالأَفئِدَةَ لَعَلَّكُم تَشكُرونَ))

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I certify that this thesis (**Assessment of Secondary School Female Students' Knowledge about Reproductive Health in AL- Basra City)** which is submitted by **(Aliaa Hussien Ali**) was prepared under my supervision at the College of Nursing/ University of Baghdad in partial fulfillment of the requirements for the degree of Master in Nursing Sciences in a specialty of (Maternal and Neonate Nursing**).**

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Certification

We members of the examining committee, certify that we have read this thesis **(Assessment of Secondary School Female Students' Knowledge about Reproductive Health in AL- Basra City)** which is submitted by **(Aliaa Hussien Ali)** from the department of maternal and neonatal Nursing and we have examined the student in its contents and what is related to it and we decide that it is qualified for pursuing the degree of **Master of sciences in Nursing** with specialty of **Maternal and Neonate Nursing**

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Dediction

To My dear Father and Mother who give me support and encouragement with all my love and respect.

My lovely husband who always helps me with all my love and respect.

My dear Brothers and Sisters who always help me with all my love and respect.

My instructor and leader that I have ever had supporting my life; Assist. Prof. Dr. Ezedeen F. Bahaaldeen with all my respect.

My dear friends with my love and respect.

Acknowledgements

At the beginning, I would like to thank and appreciate **Allah; the Almighty**, the Merciful over his slaves, for giving me the power and patience to accomplish my study.

And I would like to thank with appreciation the Ministry of Higher Education and Scientific Research and General Director of education in Basra for their cooperation Also I would like to extend my gratitude and thanks to all the students participating in the study and their cooperation with me.

I would like to express my deepest thanks to the Dean of Nursing College, **Prof. Dr. Iqbal G. Mua'ala,** for her cooperation. And I would like to express my grateful and deepest thanks with appreciation to **Prof. Dr. Huda B. Hassan** for her continuous support and for her cooperation.

And I would like to express my grateful and deepest thanks with appreciation to my teacher and supervisor **Assist. Prof. Dr. Ezedeen F. Bahaaldeen** for his continuous support and encouragement to complete my thesis.

Also I would like to thank with appreciation Head of Maternal and neonate Nursing Department **Prof. Dr. Hala A. Saady** for her support and cooperation.

I would also like to thank all the experts who have shown their opinion and added some information to the questioner of the study.

Also I express my thanks to the staff of the library and post graduate staff for their cooperation.

Abstract

Background: Reproductive health is a crucial part of general health and a central feature of human development. It is a reflection of health during childhood and during adolescence and adult-hood, sets and stage for health beyond the reproductive years, and affects the health of the next generation.

Objectives: Assessing the knowledge of secondary school female students about reproductive health.

Methodology: A descriptive analytic study was conducted to assess the level of knowledge about reproductive health among 287 school females students at the age (14-23) years from six secondary schools in AL- Basra city, the data was collected by direct interview using constructed questionnaire to obtain socio-demographic characteristics and level of knowledge related to reproductive health. The study started from 8th November 2018 to 4th April 2019. The Validity of the questionnaire is determined through a panel of (12) experts and the reliability through the pilot study .The data was collected through students self-filling technique by using the questionnaire form. Descriptive and inferential statistical analyses were employed for data analyses and interpretations.

Results: The results shows that the highest percentage of girls (82.57%) was at age of (14-18) years old, (60.2%) from students have between (5-8) brothers and sisters, (93%) of students live in urban area, (93.0%) of them live with their parents, (34.8%) of the students' fathers are governmental employees, and (57.5%) of the students' mothers were housewives, the majority of students' families have low income (63.7%) , (34.5%) of students are at good level of attainment education, browsing internet was the first source of information in (62.4%) of respondents. This study

shows that student's knowledge toward all the domains of the reproductive health was low level which is the total means (0.69). This study presents that there was a significant association between the students' knowledge and their siblings, source of information from internet, residency, and fathers' works, and there were no significant association between the students' knowledge and their age, living with and educational attainment.

Conclusions: The present study concluded that overall students' knowledge toward reproductive health were poor levels.

Recommendations: The present study recommended that it is necessary to establish educational programs to improve students' knowledge about reproductive health through direct lectures, and through mass media and the school health provider, and to have special curriculums in the teaching programs to improve their knowledge about reproductive health.

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List of Abbreviations

Items	Meaning
%	Percent
$\bar{X}$	Arithmetic Mean
∑x	Sum of x scores
∑x2	Sum of squared x scores
∑xy	Sum of the products of paired scores
∑y	Sum of y scores
ACOG	American College of Obstetricians and Gynecologists
AIDS	Acquired Immunity Deficiency Syndromes
APA	American Pregnancy Association
C	Clostridium
$\bar{c}$	Refer to average covariance between item-pairs.
CBC	Complete Blood Count
CDC	Center of Diseases Control and Prevention
et al	Italia- Others
HIV	Human Immunodeficiency Virus
HPV	Human Papilloma Virus
MMR	Maternal Mortality Rate
N	Number of observations
PID	Pelvic Inflammatory Diseases
r	Pearson r correlation coefficient
RH	Reproductive Health
Rh	*Rhesus* factor
SCH	Sanford Children Health
SD	Standard Deviation
SPSS	Statistical Package for Social Sciences
STDs	Sexual Transmitted Diseases
TTCVs	Tetanus Toxoid-Containing Vaccines
UNPF	United Nations Population Found
US	United States
$\bar{v}$	Refer to average variance.
WIBI	Woman In Balance Institute

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Chapter One

Introduction

Chapter One

Introduction

1.1. Introduction

Adolescence is the period of human growth and development that occurs after childhood and before adulthood, from 10 to 19 years of age. (Gaferi, Al-Harbi, Yakout, & Soliman, 2018).

Adolescence is a period of potent developmental and emotional interval. Most of adolescents yet neither have approach to information and education on sexuality, reproduction, contraception and sexual and reproductive health, nor do they have access to preventive and curative service (Upadhyay, Nayak, & Desai, 2018).

Focusing on adolescent reproductive health is both a challenge and an occasion for health care providers. While adolescence generally is a healthy period of life, many adolescents are less informed, less experienced, and less comfortable accessing health services for reproductive health than adults. Adolescents often loss basic reproductive health information's, knowledge, and access to affordable confidential health services for reproductive health. Many do not sense comfortable in exploring reproductive health parents. Parents, health care workers, and educators frequently are unable to provide entire, accurate, and age-appropriate reproductive health information to young people. This is often due to their own discomfort about the topic or the false belief that providing the information will encourage sexual activity (Kumar et al., 2017).

Adolescents may also experience resistance or even hostility and bad attitudes from adults when young people effort to gain the

reproductive health information and services they need. They therefore may be at an increased risk of sexually transmitted infections (STIs), unintended pregnancy, HIV, and other health consequences. For women aged 15 to 19, complications of pregnancy, childbirth, and serious abortion are the major causes of death (Tegegn, Yazachew, & Gelaw, 2008).

Teenage pregnancies look as high-risk pregnancies result in unsafe abortions, low birth weight, and high maternal morbidity and mortality. Almost 40% human immunodeficiency (HIV) virus infection is found within teenagers (Upadhyay et al., 2018).

Adolescents need to know how to keep themselves from Human immunodeficiency virus (HIV), sexual transmitted diseases (STDs) and early pregnancies, for this sex education is the best way, it should be a lifelong learning process based on the knowledge and skills and positive attitude, it helps the young people to enjoy sex and relationships that are based on qualities such as positive knowledge, cross respect, confidence, conversation and enjoyment (Kumar et al., 2017).

Adolescence is an extremely dynamic period characterized by rapid growth and development. Adolescents have restricted knowledge about sexual and reproduction health, and know a few about the natural processes of puberty, sexual health, pregnancy or reproduction. Sex education should be an integral portion of the learning process beginning in childhood and continuing into adult life, because it is lifelong process (Kumar et al., 2017).

As group adolescents and youth have sexual and reproductive health needs that vary from those adults in many ways and which remain poorly understood or served in much of the world. Neglecting this population has a major inclusion for the future. Since sexual and

reproductive behaviors during adolescence have far reaching outcome for people's lives as they develop into adult (Yemaneh et al., 2017).

Adolescence is also referred as a phase of rapid physical and cognitive growth. This is a sensitive stage of life where both girls and boys experience hormonal changes in their body. Not only their body starts taking adult shape but also they become sexually mature. As a result adolescents at this age are often attracted towards opposite sexes which lead to intimate relationships. Moreover this is also the period where one develops their cognitive power making them capable of abstract and critical thoughts. Adolescence is the period where human starts experiencing sense of self-awareness and emotional independence (Khanal, 2016).

Every year, 16 million births happen through adolescent girls aged 15–19 years, mostly in low and middle income countries accounting for 11% of all births worldwide. Of those, 23% experience complications during pregnancy or childbirth. Every year, around 3 million girls aged 15 to 19 undergo sever abortions. Complications during pregnancy and childbirth are the second reason of death for 15-19 year-old girls globally (Kuberan, Rushender, & Kumar, 2017).

In many societies, however, adolescence is narrowly equated with puberty and the cycle of physical changes culminating in reproductive maturity. In other societies adolescence is understood in broader terms that encompass psychological, social, and moral terrain as well as the strictly physical aspects of maturation. In these societies the term *adolescence* typically refers to the period between ages 12 and 20 and is roughly equivalent to the word *teens* (Mihalyi Csikszentmihalyi, 2018) .

During adolescence, issues of emotional (if not physical) separation from parents arise. While this sense of separation is a necessary

step in the establishment of personal values, the transition to self-sufficiency forces an array of adjustments upon many adolescents. Furthermore, teenagers seldom have clear roles of their own in society but instead occupy an ambiguous period between childhood and adulthood. These issues most often define adolescence in Western cultures, and the response to them partly determines the nature of an individual's adult years. Also during adolescence, the individual experiences an upsurge of sexual feelings following the latent sexuality of childhood. It is during adolescence that the individual learns to control and direct sexual urges (WHO, 2016) .

Adolescent girls constitute about 1/5th of total female population in the world. These years have been recognized as a special period in the life cycle of adolescent girls as it requires specific and special attention . This transition phase makes them vulnerable to a number of problems for example, psychosocial problems, general and reproductive health problems, and sexuality related problems (Ali, 2013).

The health and well-being of women and girls determines the strength of families, communities and nations. Access to health care for women and girls must consider the physical, mental, emotional, and spiritual aspects of her being. Investing in preventative care, comprehensive reproductive health care and sexuality education increases the likelihood that women and girls will be able to take advantage of educational and economic opportunities to build wealth benefitting themselves, their families, and their communities. Women and girls face unique realities, which necessitates access to safe, affordable and quality comprehensive medical care. Just some of these circumstances include pregnancy complications, sexual and physical assault, trafficking, child

marriage, and limited access to economic prosperity (The united Methodist church,2017).

Reproductive health is a great concern for the development of youth generation. Ensuring a better reproductive health is a request right for the young generation. Reproductive health is a major challenge for many under developed and developing country to protect the young people's reproductive health especially the female. Lack of information, knowledge, and education are great hindrances to this (Tasnim, 2013).

Word Health Organization established the Special Program of Research, Development and Research Training in Human Reproduction (HRP), whose mandate was focused on research into the development of new and improved methods of fertility regulation and issues of safety and efficacy of existing methods. Modern contraceptive methods were seen as reliable, independent of people's ability to practice restraint, and more effective than withdrawal, condoms or periodic abstinence. Moreover, they held the promise of being able to prevent recourse to abortion (generally practiced in dangerous conditions) or infanticide (Worku & Gebresilassie ,2014) .

Reproductive health covers all of the parts of adolescent health. It is a comprehensive concept, consisting of several processes, related issues such as abortion, child-birth, sexuality, contraception and maternal mortality. Biological, cultural, social, economic and behavioral factors play an important role in determination of reproductive health (Dube, & Sharma, 2012).

1.2. Importance of the Study

Young people are especially vulnerable to the adverse consequences of early sexual behavior and as such are very recognized to be one of the most important groups for reproductive health interventions. This increased vulnerability is caused by a number of biological, behavioral, and psychological factors including hormonal changes at puberty, inability to recognize symptoms of infection, immaturity of communication skills, imperceptions of risk, contraception choice, poor health seeking behavior, and alcohol or illicit substance use. In addition, structural (societal) factors that assist HIV and STI spread are also well documented. Economic deprivation, sex inequalities and mobility, including social disturbance, are all important determinants of HIV /STI spread. So, to minimize these adverse consequences and to progress the young people's health a minimum knowledge on reproductive health is necessary (Tasnim, 2013).

Adolescents have to be knowledgeable about their health problems including sexual and reproductive health problems (Kamla, 2012).Gender inequality damages the health of millions of girls and women across the globe. Taking action to improve gender equity in health and to address women's rights to health is one of the most direct and potent ways to reduce health inequities overall and ensure effective use of health resources (Ali, 2013).

The phase of adolescence for a girl is a time of preparation for the physical and psychological safe motherhood. The health of adolescent girls affects not only their own health, but also influences the health of future generation. Common pluralities of adolescent girls are suffering from reproductive health morbidities in India (Dube, & Sharma, 2012).

Reproductive health is an important component of general health, it is a perquisite for social and economic and imperative because human energy and creativity are the driving forces of development. Adolescents

represent major potential human resources for the overall development of a nation. It is the time between childhood and adulthood, marked by biochemical activities, enhanced food requirement, basal metabolic activities and endogenous processes as hormonal secretions with their influence on the various organ systems. Adolescents comprise 20% of the world's total population . Adolescents may face troubles due to lack of right kind of information regarding their own physical and or sexual developments (Ali, 2013).

Sexual and reproductive health in it is broadest sense should encompass the health of all individuals, not only women. Moreover, since men actively participate in sexual behaviors and decisions, their health issues can negatively affect their economic status, marital stability, and the health of women, children and family in general. Moreover, men are still responsible for many decisions related family size, birth interval, use of contraceptive methods, and prevention of STD/HIV. Men also determine their spouses' attitudes towards different part of sexual and reproductive health (Hajizadeh , Javadnoori , & Javadifar, 2015).

1.3. Statement of the Problem

Assessment of secondary school female students' knowledge about Reproductive health in Basra City.

1.4. Objectives of the Study:

1. Assess the knowledge of secondary school female students about reproductive health.

2. Identify some demographic variables like age, siblings, residency, socioeconomic status,. etc. And to find out the correlation of their knowledge with these variables.

1.5. Research Hypothesis

The Research Hypothesis of this study is as follows:

Secondary school female students may have poor knowledge about reproductive health.

1.6. Definitions of the Terms

For the purpose of the present study, the following definitions will be used:

1.6. 1. Assessment

1.6.1. A. Theoretical Definition

A collection of all relative information needed to solve health problem (Adai, 2012).

1.6.1. B. Operational Definition

Is a collection of information from female's students about reproductive health.

1.6.2. Knowledge

1.6.2. A. Theoretical Definition

Information, facts, and skills acquired through the education or experience: theoretical or practical understanding a subject (Doniach, 2014).

1.6.2. B. Operational Definition

The information of secondary school female's students about reproductive health.

1.6.3. Reproductive Health

1.6.3. A. Theoretical Definition

Reproductive health is a state of complete physical, mental and social well-being in all things relating to the reproductive system (United Nations population found [UNPF], 2016).

1.6.3. B. Operational Definition

It refers to the health of women during reproductive years.

Chapter Two

Literature Review

Chapter Two

Literature Review

This chapter presents a survey of relevant literature and previous studies concerned with respect to the phenomena underlying the present study. Such presentation had included the most issues related to adolescent's reproductive health.

Part One: General Considerations of Reproductive Health

2.1. Overview

The concept of reproductive health is a vast concept that covers maternal and child health services, sheth, family planning, sexually transmitted infections. Reproductive health (RH) is not only loss of illness and disability, but also the physical, mental and social well-being of the reproductive system (Basaran, & Naim, 2017).

Reproductive health is an important part of overall health and a central feature of human development. It is a reflection of health during childhood and during adolescence and adult-hood, sets and stage for health beyond the reproductive years for both male and female, and affects the health of the next generation (Kotwal , Gupta, & Gupta, 2017).

United Nation Population found works to ensure sexual and reproductive health and rights remain at the very center of development. The International Conference on Population and Development draws a clear connection between reproductive health, human rights and sustainable development. When sexual and reproductive health needs are not met, individuals are deprived of the right to make crucial choices about their own bodies and futures, with a cascading impact on their families' welfare and future generations. And because women bear children, and also often

bear the responsibility for nurturing them, sexual and reproductive health and rights issues cannot be separated from gender equality. Cumulatively, the denial of these rights exacerbates poverty and gender inequality (Basaran, & Naim, 2017).

This is seen most acutely in developing countries, where reproductive health problems are a leading cause of ill health and death for women and girls of childbearing age. Impoverished women suffer disproportionately from unintended pregnancies, unsafe abortion, maternal death and disability, sexually transmitted infections (STIs), gender-based violence, and other related problems.Young people are also extremely vulnerable, often facing barriers to sexual and reproductive health information and care. Young people are disproportionately affected by HIV, for example, and every year millions of girls face unintended pregnancies, exposing them to risks during childbirth or unsafe abortions and interfering with their ability to go to school. Adolescent reproductive health is therefore another important focus of UNFPA's work (Kotwal , Gupta, & Gupta, 2017).

UNFPA also works to prevent and address STIs, which take an enormous toll around the world. More than a million people acquire an STI every single day. Without diagnosis and treatment, some STIs, such as HIV or syphilis, can be fatal. STIs can also cause pregnancy-related complications, including stillbirth, congenital infections, sepsis and neonatal death. STIs like human papillomavirus (HPV) can lead to pelvic inflammatory disease, infertility and cervical cancer, a major killer of women.Reproductive health is a lifetime concern for both women and men, from infancy to old age. Evidence shows that reproductive health in any of these life stages has a profound effect on one's health later in life. UNFPA supports programmes tailored to the different challenges people face at

different times in their lives, including comprehensive sexuality education, family planning, antenatal and safe delivery care, post-natal care, services to prevent sexually transmitted infections (including HIV), and services facilitating early diagnosis and treatment of reproductive health illnesses (including breast and cervical cancer) (UNPF, 2016) .

To support reproductive health throughout the life cycle, services across a variety of sectors must be strengthened, from health and education systems to even transport systems – which are required to ensure health care is accessible. And all efforts to support sexual and reproductive health rely on the availability of essential health supplies, such as contraceptives, life-saving medicines and basic medical equipment. UNFPA's work on improving sexual and reproductive health is a key effort towards achieving Sustainable Development Goal 3, which calls for good health and well-being. It also advances Goal 5, which calls for gender equality, as well as many of the other goals included in the 2030 Agenda. (Yemaneh, et al., 2017).

UNFPA works with governments, other UN agencies, civil society and donors to develop comprehensive efforts to ensure universal access to sexual and reproductive health care. UNFPA advocates for integrating the delivery of these services into primary health care, so it is as accessible as possible. This means, for instance, that a woman could address her family planning, antenatal care, HIV testing and general health needs all in one place.UNFPA is also working with governments and communities to strengthen health systems, including supporting the implementation of reproductive health programmes, improving the quality of reproductive health care and strengthening human resources. UNFPA also works to make sure reproductive health commodities are available where needed, and that a functioning logistics system is in place.

The Maternal Health Thematic Fund and UNFPA Supplies are just two examples of UNFPA's work in strengthening health systems and quality services.While strengthening national systems, UNFPA also puts special emphasis on increasing access for disadvantaged groups, including young people, the urban poor, rural communities, indigenous populations and women with disabilities.(UNPF, 2016)

Reproductive health is a broad topic, intimately attached to every person's quality of liveliness. It is about helping people cross the hormonal alterations in their physical structures, whether in adolescence or in menopause. It is about choosing whether and when to be pregnant, and being able to hold a safe pregnancy without problems. It is about understanding ourselves as sexual status and how our sexuality affects our relationships and our health. Reproductive health is about helping persons live long and satisfying lives (Tasnim, 2013).

Reproductive health is considered a worldwide concern, but it is of a special importance for female particularly during reproductive year. Nevertheless, male also demand specific reproductive health considerations and sustain power in some reproductive health things (Yemaneh, et al., 2017).

Teen girls need adequate information about the physical, psychological changes that pass off during menstruation, puberty, pregnancy and childbirth. Household formation is a combination of varying factors such as girls' ideal age during marriage, ideal number of children and ideal birth interval (Gopal, Premarajan, & Subitha, 2014).

In many countries, the topic of adolescent sexuality and reproductive health is politically and culturally sensitive. As a result, reproductive health information and services don't reach more new people.

Till, approximately 55 nations have guided policy and program criteria to direct the health needs of teenagers. Given the importance attributed to adolescent health by such countries, the United Nations Population Fund is intensifying efforts to get acceptable and active ways to assist sheng people protect their reproductive health and their futures (Jaffer, Afifi, Al Ajmi, & Alouhaishi, 2012).

Today about one-fifth of the world's population is adolescents and sheng adults, with more than four fifths in developing nations. During the passage from childhood to adulthood, adolescents establish patterns of behavior and make lifestyle choices that affect both their current and future health. Sexual activity among adolescent has been reported to be on the rising worldwide. Most sheng people throughout the globe will participate in sexual intercourse by age 20, whether married or unmarried (Gebremichael, & Chaka, 2015).

Reproductive health in Indonesia still insufficiency. This is appearing by a high maternal mortality rate (MMR) in Indonesia 229 per 100 thousand live births (133-379) in 2008.1-3 Maternal mortality in Brebes elevated in Central Java. One of causes of high maternal mortality rate is a decrease of sensitivity of brides and grooms reproductive health including maternal awareness about the risks of pregnancy signs and taking action (Nugraheni, Kartasurya, Prihatini, & Sulistyowati, 2018) .

Maternal mortality - which includes deaths from complications during pregnancy or childbirth, unsafe abortion and maternal suicide - is a major cause of death among girls aged 14-24 in developing countries (Nove, Matthews, Neal, and Camacho , 2014) .

Girls who give birth during adolescence face a higher risk of death than women with children in their early 20 years, and their children tend to lose weight at birth, more health complications, and greater risk of neonatal death (Mouli, Lane, & Wong , 2015) .

Part Two:

2.2. Knowledge about Reproductive Health

2.2.1. Signs of Puberty

Body changes during puberty include:

1. Body Growth

One major change women may notice is growing faster than she did during childhood. This is known as a growth spurt. First, she may notice her feet and hands getting bigger. Next, the arm and leg bones grow, making her taller. She may gain some weight to match the increase in her bone size. This may be an awkward time until the rest of the body catches up, but once it does, her body will be more proportional.

2. Breast Development

At first she may notice what feel like little buds, or swellings, under her nipples. After that, her breasts will gradually get bigger and fuller and may become a little sore. Wearing a bra will be important so she can have the proper support for her breasts. Also, it’s important to remember that every girl is different. How large or small her breasts become depends on the physical genetic traits in her family. Full breast development typically takes 2-3years (Arjunan, 2012).

3. Body Hair

Soon she will find new hair growing in new places. Curly hair will start growing in the pubic area (the area that extends from her lower stomach to between her legs). In some girls, pubic hair may appear before breast development. At first, this hair is soft, and there's not much of it. Later, the hair grows longer and becomes a little curly. Although it starts growing between the legs, it eventually covers the entire pubic area and

may include the upper, inner thighs. This usually takes 2-3 years. A few months after pubic hair begins to grow, hair will also grow under her arms.

4. Body Sweat

Sweat glands will become larger and more active, causing to sweat more. This may happen even before breasts develop. Once this happens mother will want to wear an antiperspirant/deodorant to help reduce sweating.

5. Skin and Hair Changes

During puberty, the pores in her skin produce more oil, especially on her face. This can cause acne. She may have to wash her hair and face more often now that she was going through puberty. It would be a good idea to create a daily skin care routine to meet the needs of her changing skin (Dutta , 2013).

6. Genitals Develop

Her genitals, or private areas, also grow and change during puberty. Her outside parts (the vulva) are enclosed by two sets of "lips." The larger lips have hair. The inner, smaller lips don't. These increase in size a little bit. Inside her body, the vagina is getting longer and the uterus is getting bigger.

7. Discharge Occurs

Discharge is a clear or cloudy fluid produced by her body to moisten and cleanse the vagina. Before she starts her period, she'll probably notice yellow or white stains inside her underwear. This is natural moisture from the vagina. It's perfectly normal, and it's a sign that menstruation will likely start in six to 18 months. Sometimes, vaginal discharge can become white, clumpy, thick or milky. In this case, she might have a yeast infection. Talk to her parents or doctor if she have any questions (Beckmann, 2010).

8. First Period Starts

All of these changes lead up to the start of her first period. She may not be sure what's normal, but there's no need to worry. When she first starts menstruation, it can be unpredictable for the first two years. It typically takes 1-2 years for cycles to develop, so she may not be regular for a while. Every girl develops differently and at her own pace, so don't be discouraged (Kmail, 2011).

2.2.2. Menstruation

The menstrual cycle (female genital cycle) is an episodic uterine hemorrhage in response to periodic hormonal changes. The purpose of the menstrual cycle is to renew the layer of uterine tissue that will be responsible for the growth of the egg is fertilized. It is the process that allows life and the planting of a new life. Because menarche may occur as early as 9 years of age, it is good to include health teaching information on menstruation to both school age children and their parents as early as fourth grade as part of routine care. The length of menstrual cycles differs from woman to woman, but the average length is 28 days (from the beginning of one menstrual flow to the beginning of the next). It is not unusual for cycles to be as short as 23 days or as long as 35 days. The period of the average menstrual flow (termed menses) is four to six days, although women may have periods as short as 2 days or as long as 7 days . Because there is such variation in length, frequency, and amount of menstrual flow and such variation in the onset of menarche, many women have questions about what is considered normal. Contact with health care personnel during a yearly health examination or prenatal visit may be their first opportunity to ask questions they have had for some time (Pillitteri, 2010).

Menstruation is the discharge of blood and tissue from the lining of her uterus that occurs at the beginning of her menstrual

cycle. Each woman's menstruation cycle varies, but the process is always the same. It's hormones! Hormones trigger her ovaries to produce and release one egg from either her right or her left ovary. This is called ovulation. Before ovulation occurs, her uterine lining is thickening to prepare for a fertilized egg to implant in the uterus. If an egg is not fertilized, then the uterine lining sheds. This is called menstruation or her menstrual period (Gary, 2015).

Every woman's cycle (the time from the first day of her menstrual period until the first day of her next menstrual period) is different. On average, a woman has her menstrual period for 3-7 days. The average length of a woman's cycle is 28-32 days. This leaves plenty of room for a woman to vary from her neighbor, friend, or co-worker. Women also vary in the severity of symptoms that occur before and during menstruation (Beckmeen, 2013).

Approximately 85% of women who menstruate report changes in the days or weeks before their menstruation that cause problems that affect their normal lives. This is known as Premenstrual Syndrome (PMS).During menstruation, the uterus, which is a muscle, contracts and relaxes more than it does at other times in the month. This can produce an uncomfortable feeling of cramps. Using a heating pad or hot water bottle may help ease some of the discomforts. Taking over-the-counter pain relievers such as naproxen, ibuprofen, or acetaminophen may also help. Other discomforts during menstruation may include breast tenderness, bloating, headaches , fatigue, mood swings, and food cravings. Some women will experience these symptoms more than others will and not every woman will experience all of these symptoms (Pillitteri, 2010).

Sometimes a period may come late or be missed for the month. Frequently, a woman's first thought is that she is pregnant. there are times when a woman may be late or miss her period for other unsuspected reasons **include:** Significant weight gain/loss , Fatigue ,Hormonal problems, Tension , Stress ,Ceasing to take the birth control pill ,Breastfeeding ,Increase in exercise ,Illness , Infections , STD's , View and print an Ovulation Calendar to better understand your menstrual cycle and ovulation (Lowdermilk, Perry,Cashion,& Alden, 2012).

2.2.3. Dysmenorrhea

Dysmenorrhea (menstrual cramps) is usually divided into two categories based on pathophysiology: primary dysmenorrhea is menstrual pain without organic disease, secondary dysmenorrhea is menstrual pain associated with a specific disease. Dysmenorrhea can be literally translated as "difficult monthly flow." Although it's normal for most women to have mild abdominal cramps on the first day or two of their period, about 10% of women experience severe pain. (Beckmann et al., 2010)

There are two types of dysmenorrhea include Primary dysmenorrhea is menstrual pain that's not a symptom of an underlying gynecologic disorder but is related to the normal process of menstruation. Primary dysmenorrhea is the most common type of dysmenorrhea, affecting more than 50% of women, and quite severe in about 10%. Primary dysmenorrhea is most common in late adolescence and the early 20s. Fortunately for many women, the problem eases as they mature, particularly after a pregnancy. Although it may be painful and sometimes debilitating for brief periods of time, it is not harmful. And Secondary dysmenorrhea is menstrual pain that is generally related to some kind of gynecologic disorder. Most of these disorders can be easily treated with

medications or surgery. Secondary dysmenorrhea is more likely to affect women during adulthood (sameri, 2009).

Primary dysmenorrhea is thought to be caused by excessive levels of prostaglandins, hormones that make your uterus contract during menstruation and childbirth. The pain results from the release of these hormones when the lining (*endometrium*) is sloughing off during your menstrual period. This leads to uterus contraction and decreased blood flow to the uterus.Factors that may make the pain of primary dysmenorrhea even worse include a uterus that tilts backward (retroverted uterus) instead of forward; longer, heavier, or irregular menstrual periods; lack of exercise; psychological or social stress; smoking; drinking alcohol; being overweight; a family history of dysmenorrhea; and starting menstruating before age 12 (Dutta, 2013).

Secondary dysmenorrhea may be caused by a number of conditions, including fibroids – benign tumours that develop within the uterine wall or are attached to it, adenomyosis – the tissue that lines the uterus (called the endometrium) begins to grow within its muscular walls, a sexually transmitted infection (STI), endometriosis – fragments of the endometrial lining that are found on other pelvic organs , pelvic inflammatory disease (PID), which is primarily an infection of the fallopian tubes, but can also affect the ovaries, uterus, and cervix , an ovarian cyst or tumour, the use of an intrauterine device (IUD), a birth control method (Beckemann, 2010).

The main symptom of dysmenorrhea is pain. It occurs in lower abdomen during menstruation and may also be felt in hips, lower back, or thighs. Other symptoms may include nausea, vomiting, diarrhea, lightheadedness, headache, or fatigue. For most women, the pain usually

starts shortly before or at the beginning of their menstrual period, peaks around 24 hours after the start of bleeding, and subsides after 2 to 3 days. Sometimes clots or pieces of bloody tissue from the lining of the uterus are expelled from the uterus, causing pain (Al konar, 2013) .

Dysmenorrhea pain may be spasmodic (sharp pelvic cramps at the start of menstrual flow) or congestive (deep, dull ache). The symptoms of secondary dysmenorrhea often start sooner in the menstrual cycle than those of primary dysmenorrhea, and usually last longer. In 5% to 15% of women with primary dysmenorrhea, the pain is severe enough to disturb their daily activities and may result in missed work or school (Dutta, 2013).

If woman experience painful periods, check with her doctor to see whether she might have an underlying disorder that is causing secondary dysmenorrhea. she may be given a pelvic examination, and her blood and urine may be tested. A doctor may also wish to use ultrasound to get a picture of her internal organs or even use the technique of laparoscopy for a direct look into her uterus (Beckemann, 2010).

Doctor may prescribe medications or other remedies depending on the cause of the dysmenorrhea. Primary dysmenorrhea is usually treated by medication such as an analgesic medication. Many women find relief with nonsteroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen and naproxen.Some doctors may prescribe hormone medications. Oral contraceptives also may also help reduce the severity of the symptoms. Nausea and vomiting may be relieved with an antinausea (antiemetic) medication, but these symptoms usually disappear without treatment as cramps subside. Implantable contraception and progesterone IUDs, which release low levels of the hormone progesterone, have also been found to be very helpful in decreasing pain (Samerai, 2009).

Women who do not respond after three months of treatment with NSAIDs and hormonal contraceptives may have secondary dysmenorrhea. Treatment for secondary dysmenorrhea will vary with the underlying cause. Diagnostic laparoscopy, other hormonal treatments, or trial of transcutaneous electrical nerve stimulation (TENS) are potential next steps. Surgery can be done to remove fibroids or to widen the cervical canal if it is too narrow (Dutta, 2013).

In addition to the above, other non-medicinal treatments for the pain of dysmenorrhea include holding a heating pad or hot water bottle on her abdomen or lower back, taking a warm bath, doing mild exercises like stretching, walking, or biking – exercise may improve blood flow and reduce pelvic pain, getting plenty of rest and avoiding stressful situations as her period approaches, yoga. She may also wish to consider alternative therapies such as hypnosis, herbal medications, or acupuncture. Be cautious with herbal medications. They may be "natural," but they are not necessarily safe or free of side effects. They can also interact with other medications she may be taking. Check with her doctor or pharmacist before trying any herbal medications (Dutta, 2013) .

2.2.4. Sexually Transmitted Diseases (STDs)

Sexually transmitted diseases are one of the most common gynecologic problems in sexually active women. STDs can be transmitted by oral, vaginal, or anal sex. The transmission of an STD may have varied consequences, including infertility, cancer, and even death. Because of the variations in signs and symptoms and the asymptomatic presentation of STDs, a thorough sexual history and physical examination are essential in detecting the presence of an STD. The findings obtained through a

systematic physical assessment, combined with the patient's history, usually help make the proper diagnosis (Amu & Adegun , 2015).

The inguinal region should be evaluated for rashes, lesions, and adenopathy. The vulva, perineum, and perianal areas should be inspected for lesions or ulcerations, and palpated for thickening or swelling. The Bartholin glands, Skene ducts, and urethra should be evaluated, as these are frequent sites of gonorrheal infection. In patients with urinary symptoms, the urethra should be gently milked to express any discharge. The vagina and cervix should be inspected for lesions and abnormal discharge. If a patient engages in anal intercourse, the rectum should be considered a potential site for infection. For completeness, the oral cavity as well as the cervical and other lymph nodes should be evaluated, if appropriate, based upon the patient's modes of sexual expression (Beckmann et al., 2010).

Types of STDs include Chlamydia ,Genital herpes, Gonorrhea, ,HPV, Syphilis, Trichomoniasis .Signs and Symptoms include Pain during urination, Abdominal pain in the lower area, Vaginal discharge in female, Discharge from the penis in male, Pain during sexual intercourse in female, Bleeding between periods in female, Testicular pain in male (Al konar , 2013).

A critical component of appropriate prenatal care is ensuring that pregnant patients are tested for STDs. Test pregnant patients for STDs starting early in their pregnancy and repeat close to delivery, as needed. To ensure that the correct tests are being performed, nurse encourage pregnant patient to have open, honest conversations with her and, when possible, their sex partners about symptoms they have experienced or are currently experiencing and any high-risk sexual behaviors in which they engage (Center of Diseases Control and Prevention [CDC] , 2016) .

Some STIs can also be spread through non-sexual means such as via blood or blood products (Word Health Organization [WHO] , 2016), STDs can be transmitted by use of the contaminated tools injuries (Aboukmail , 2011) .

In United States, nearly half of the 20 million new cases of curable STDs each year are accounted among adolescents aged between 15 to 24 years

(Khanal, 2016).

2.2.5. Prevention Methods from Sexually Transmitted Diseases

Prevention of STDs can be prevented by keeping away from illicit sexual relations. (Kmail, 2011). Safer sex, with a condom, female condom, gloves, and/or other appropriate barriers, only works if she is consistent about it (Boskey, 2017). Don't share other tools injurious (Mahdi, 2013).

2.2.6. Infertility

Infertility affects approximately 15% of reproductive-age couples in the United States (US). Infertility is the couple's failure to conceive after 12 months of unprotected frequent intercourse (Beckmann et al., 2010).

There is two types of infertility: Primary infertility is an inability to conceive and carry a pregnancy to viability with no previous history of pregnancy carried to alive birth .Secondary infertility- is an inability to conceive and hold a pregnancy to alive birth following one or more successful pregnancies (American Pregnancy Association [APA], 2018).

Male causes of infertility include Anatomical Abnormalities / congenital factor, Inadequate Sperm Production / Maturation, Varicose, Testicular Inflammation, Sexually Transmitted Disease, Radiation Exposure, Stress, Certain Drugs such as hormonal steroid and thyroid drugs, Inadequate motility of sperm ,Blockage of sperm in male reproductive tract (AL Konar, 2013) .

Females causes of infertility include Vaginal – abnormalities (Infectious such as pelvic inflammatory disease and gonorrheal infections, Highly acidic vaginal PH), Cervical - Hostile environment (insufficient estrogen or infection), Uterine – Abnormalities (Mullerian anomalies),**Primary ovarian insufficiency (early menopause), when the ovary stops functioning and menstruation ends before the age of forty. Although the cause is often unknown, some factors are associated with early menopause, including some genetic conditions, immune system diseases, radiation therapy and chemotherapy,** Ovarian - an ovulation (Irregular or infrequent ovulation),Tubal (Adhesions ,Scar tissue due to PID, Endometriosis).(AL Konar, 2013) A tumor or cyst, Alcoholism or drug use, Thyroid gland disease, Fatigue, Intense exercise that causes a significant loss of body fat, A previous infection., Fibroids,Chronic medical illness such as hypertension and asthma, because of some drugs used in treat these conditions can effect fertility.,A previous ectopic (tubal) pregnancy, A birth defect (American Pregnancy Association [APA], 2018)

There are other factors for infertility include Exposure to workplace hazards such as radiation or toxic substances, Exposure of scrotum to high temperatures ,Nutritional deficiencies, Obesity, Antisperm antibodies , Substance abuse ,Changes in sperm—cigarette smoking,

heroin, marijuana, amyl nitrate, butyl nitrate, ethyl chloride, methaqualone (Lowdermilk, Perry,Cashion,& Alden, 2012)

2.2.7. Premarital Counseling

Premarital laboratory tests are essential in determining the potential health risks of couples who intend to marry as well as their siblings. Couples are tested for infectious diseases transmitted by blood and heredity, the latter particularly important in continental marriages (marriage to a relative of blood). These tests are important in places where marriage is very popular, as is the case in Arab countries. Therefore, the need for prenuptial counseling is critical. Although some countries such as Jordan, Saudi Arabia, Iran, Iraq, Bahrain and Turkey have established centers to determine the possibility of any blood disorders such as thalassemia among couples intending to marry (Shammout, Khatatbeh, & Al Omari , 2017) .

Premarital counselling include Screening for lack of genetic diseases, Thalassemia, Some infectious diseases: hepatitis B, C and AIDS/HIV, Complete blood count (CBC),Blood group (ABO & Rh typing),Screening for toxoplasmosis, Complete urine test, Blood glucose test (Kmail , 2011)

2.2.8. Preconception Counseling

Ideally, couples thinking about having a child should schedule a visit with their health care provider for preconception counseling to ensure that they are in the best possible state of health before pregnancy. Preconception care is the promotion of the health and well-being of a

woman and her partner before pregnancy. The goal of preconception care is to identify and modify biomedical, behavioral, and social risks to a woman's health or pregnancy outcome through prevention and management interventions. Pre-pregnancy care should occur at any time seen by any health care provider of a woman of childbearing age. Personal and family history, physical examination, laboratory testing, reproductive plan, nutrition, dietary supplements, weight, exercise, vaccinations, and injury prevention should be reviewed in all women (AL Konar, 2013).

Preconception care involves obtaining a complete health history and physical examination of the woman and her partner include ,Immunization status of the woman, Underlying medical conditions, such as cardiovascular and respiratory problems or genetic disorders Reproductive health data, such as pelvic examinations, use of contraceptives, and sexually transmitted infections (STIs), Sexuality and sexual practices, such as safer-sex practices , Lifestyle practices, including occupation , Psychosocial issues such as levels of stress and exposure to abuse and violence (Ali , 2013).

Also There are other objects include medication and drug use, including use of tobacco, alcohol, over-the-counter and prescription medications, and illicit drugs, This information provides a foundation for planning health promotion activities and education. For example, to have a positive impact on the pregnancy, Create a reproductive life plan to address and outline their reproductive needs , Take a thorough history of both partners to identify any medical or genetic conditions that need treatment or a referral to specialists , Complete a dietary history combined with nutritional counseling, Gather information regarding exercise and lifestyle practices to encourage daily exercise for well-being and weight maintenance , Stress the importance of taking folic acid to prevent neural

tube defects. And iron for anemic women and during pregnancy in different doses, Urge the woman to achieve optimal weight before a pregnancy ,Identify work environment and any needed changes to promote health, Address substance use issues, including smoking and drugs , Manage chronic conditions such as diabetes and asthma.(Lowdermilk, et al., 2012).

2.2.9. Conditions of Pregnancy

Women must be able to produce healthy eggs. They must have open fallopian tubes so that the fertilized egg can reach the uterus, the endometrium is able to germinate the embryo on its wall, and the embryonic growth and development process is complete. , And the man must have healthy sperm cells have the ability to fertilize the oocytes in terms of number and movement, and that the sperm channel is intact, so that the fertilization of the egg, and then evolve to form the fetus and get pregnant (Nichols , 2017).

The couple is advised to establish a marital relationship in the period of fertility for women, which is the period of ovulation and three days before, and the fact that sperm can live for 3-6 days inside the woman's body, While the egg remains alive for one day only, so it is possible to practice the marital relationship day after day in the period of fertility to maintain the presence of sperm ready to fertilize the egg once released from the ovary, on the other hand, the practice of marital relationship on a daily basis rather than day after day will not The hands of the more chance to occur, and at the same time will not pose any harm.Preserving normal weight Overweight and obese women reduce their chances of pregnancy. An overweight woman needs twice as much time as normal pregnancy. At the same time, extreme thinness may make her body unable to carry the fetus. Women are four times as likely to become

pregnant, so it is important to maintain a normal weight without increasing or decreasing (Sharma, & Shankar, 2010).

Preserving a healthy lifestyle Although there is no special food that increases fertility, maintaining healthy and healthy eating helps the woman's body Acquire a Such as protein, calcium and iron, so women are advised to multiply vegetables, fruits, grains, red meat, milk and milk products, and avoid caffeine-containing beverages such as coffee and soft drinks. Also stop smoking, drink alcohol, and avoid exercise and work. It is important to protect the fetus from congenital malformations.Avoid using vaginal lubricants Use lubricants to facilitate the process of sexual intercourse less Of the chance of pregnancy, and reduces the ability of sperm to access the egg and fertilize, so avoid the use of lubricants and even saliva or olive oil, and if the use is necessary, it is advisable to consult a doctor to propose a good quality does not reduce the chance of pregnancy (Woman in balance Institute [WIBI], 2014).

Ovulation in women who have a regular menstrual cycle almost two weeks before the date of the course, but it is difficult to determine the date of ovulation if the session is irregular, but usually 12-16 days before the next session, and many ways can be followed to help know the date Ovulation The use of a k Ovulation, a home-like device that is very similar to a home pregnancy test. A urine sample is used to detect a special hormone level that increases during the ovulation period and triggers an egg release. The next three days to obtain a positive result are the best time for pregnancy and marital relationship. Monitor the body temperature when she wake up every morning and record it on paper, which may indicate ovulation; during this period, women notice a rise in body temperature by less than half of 0.3 ° C, and women are in the highest degree of fertility during Three days prior to this rise. Monitoring the quantity and quality of

vaginal secretions. As ovulation approaches, women notice an increase in the amount of vaginal secretions, and become more transparent and slippery (Sharma, & Shankar, 2010).

Ask a doctor to seek help with failed and repeated attempts to conceive naturally some women wonder when it is appropriate to consult a specialist. In fact, the chance of pregnancy is very high over a period of six months; pregnancy occurs at eight in ten women if mother older than 40 years of age, mother should consult doctor directly, while mother should consult doctor six months after her try. The woman was between 35-40 years old and a The age of less than 35 years can wait for one year before visiting the doctor (Uzogara, 2016).

Preserving the Fertility of men to increase the chance of pregnancy, the availability of sperm should be abundant, healthy and good. To do this, the husband is advised to: For drinking alcohol; it reduces the sperm count and leads to the production of abnormal sperm. Stop smoking cigarettes and taking narcotic drugs, they weaken sperm and reduce fertility. Maintain a healthy weight and avoid weight gain. Eat plenty of foods such as zinc, folic acid, calcium, vitamin C, and vitamin D. This helps to produce quality sperm and good numbers. Avoid hot tubs, saunas and hot baths. High temperatures kill sperm. They need less heat than the body to live normally. After these changes, the body will need a period of time to improve, and the improvement in sperm quality is expected after three months. (Woman in balance Institute [WIBI], 2014).

2.2.10. Healthy pregnancy

Prepregnancy health is essential because it affects the pregnancy outcomes for both mother and child. Positive health habits such as getting adequate nutrition, using daily vitamins with folic acid, regular physical

activity, non-smoking, and alcohol abuse are part of pre-pregnancy health. Also advice during pregnancy that Proper diet, rest & mild exercise is essential during pregnancy, Regular antenatal checkup is essential during pregnancy. It also includes avoiding medications that are recommended for use, counseling about inheritable genetic diseases, avoid unnecessary fear about pregnancy in sheng reproductive age women and provide preconception care throughout the preconception visits (Arjunan, 2012).

Word Health Organization has issued a new series of recommendations to improve the quality of prenatal care to reduce the risk of stillbirth and complications of pregnancy and give women a positive pregnancy experience. By focusing on the positive pregnancy experience, these new guidelines seek to ensure not only maternal and child health, but also the effective transition to positive birth and delivery and ultimately to positive maternal experience (WHO, 2016).

It is estimated that more than 40% of pregnant women worldwide suffer from anemia. At least half of the burden of anemia is assumed to be due to iron deficiency. Pregnant women need more iron and folic acid to meet their nutritional needs as well as the needs of the developing fetus. Deficiencies in iron and folic acid during pregnancy can affect maternal health and pregnancy as well as fetal development. Evidence has shown that the use of iron supplements and folic acid is associated with reduced risk of iron deficiency and anemia in pregnant women. Folic acid should be commenced as early as possible (ideally before conception) to prevent neural tube defects (WHO, 2016).

A birth defect is a condition present at birth. Some congenital defects can be seen immediately after the baby is born, such as extra toes. Special tests may be needed to find others, such as heart defects or hearing loss. Some birth defects are not observed until later in life. Some birth

defects are caused by genes that can be transmitted from parents to children. Others produce a chromosomal problem. There are a small number of birth defects caused by exposure during pregnancy to certain drugs, infections and chemicals. For many birth defects, the cause is unknown (American College of Obstetricians and Gynecologists [ACOG], 2018).

2.2.11. The Role of Primary Health Care Center in Pregnant Health:

Prenatal care is the use of health care during pregnancy, which refer to medical care recommended for women during pregnancy, help ensure the health for new mom and her baby and also reduce negative outcomes such as maternal death rates, miscarriage, birth defects, low birth weight and other preventable infant problem (Shalash, 2011).

Role of primary health care include Physical examination and laboratory services to monitor fetal growth and detect pregnancy risk (age, parity, height, weight, and other predisposing factors) , Health education and counselling on pregnancy nutrition and breast feeding, provision of tetanus toxoid immunization, iron tablet, anthelminthic and malaria prophylaxis where necessary, Early detection and referral high risk cases to the appropriate health institution at the community level (Shalash, 2011).

Pregnant women usually are cared for by obstetricians: doctors who specialize in pregnancy and childbirth , obstetricians/gynecologists (OB/GYNs): doctors who specialize in pregnancy and childbirth, as well as women's health care ,family practitioners: doctors who provide a range of services for patients of all ages (sometimes, this includes obstetrical care) instead of specializing in one area , certified nurse-midwife: an advanced practice nurse specializing in women's health care needs, including prenatal

care, labor and delivery, and postpartum care for pregnancies without problems Any of these care providers is a good choice if womens'health and there's no reason to expect problems with pregnancy and delivery. However, nurse-midwives do need to have a doctor available for the delivery in case a C-section has to be done (Sanford Children Health [SCH] , 2018).

Health care provider may refer mother to a doctor with expertise in high-risk pregnancies if she have a chronic condition like diabetes or heart problems , have an increased risk of preterm labor , are older than 35 , are pregnant with more than one fetus ,have another complicating factor that might put mother in a high-risk category Even if her pregnancy isn't high-risk, this may still be a good time to make a change in health care providers if mother not comfortable with her current doctor (Ricci et al., 2013).

Mother should call to schedule for first checkup during the first 6 to 8 weeks of her pregnancy, or when her period is 2 to 4 weeks late. Many health care providers will not schedule the first visit before 8 weeks, unless there is a problem. If she was healthy and have no complicating risk factors, she can expect to see her health care provider every 4 weeks until the 28th week of pregnanc, then, every 2 weeks until 36 weeks, then, once a week until delivery at each checkup, her weight and blood pressure are usually recorded. The size and shape of her uterus may also be measured, starting at the 22nd week, to see whether the fetus is growing and developing normally. During one or more of her visits, she was provide a small urine sample to be tested for sugar (glucose) and protein (Woman in balance Institute [WIBI], 2014).

Glucose screening usually takes place at 12 weeks for women who are at higher risk for gestational diabetes. That includes women who: previously had a baby that weighed more than 9 pounds (4.1 kilograms) ,have a family history of diabetes , are obese. All other pregnant women are tested for diabetes at 24 to 28 weeks. They'll drink a sugary liquid and have blood drawn after an hour for a blood glucose test. If the blood sugar level is high, more testing can confirm whether it's gestational diabetes (Mahdi, 2013).

Many parents-to-be choose to have prenatal tests. These can help health care providers find things like a birth defect or a chromosomal problem in the fetus. Prenatal tests are done in the first, second, and third trimesters. Some prenatal tests are **screening tests** that can only reveal the possibility of a problem. Other prenatal tests are **diagnostic tests** that can accurately find whether a fetus has a specific problem. A screening test sometimes is followed by a diagnostic test. These can include blood tests, amniocentesis, CVS, and ultrasound exams. (Jafferet al., 2012).

Some women worry about medical conditions they already have, such as diabetes, and how they could affect a pregnancy. It's important to talk with her doctor, who may recommend a change in medicines or treatments that could ease her concerns. Other conditions that can come with pregnancy include **gestational diabetes:** Some pregnant women develop this condition, usually after the first trimester. The placenta provides the fetus with nutrients and oxygen, and also makes hormones that change the way insulin works. Insulin helps the body store the sugar in food, which is later converted to energy (Nwatu et al., 2017).

In gestational diabetes, a problem with insulin leads to a high blood sugar level , **preeclampsia (also called toxemia of**

pregnancy): This condition can happen after the sixth month, causing high blood pressure, edema (fluid buildup in body tissues that causes swelling of the hands, feet, or face), and protein in the urine , **Rh-negative mother/Rh-positive fetus (also called** Rh incompatibility**):** Most people have Rh factor in their red blood cells (they're Rh positive). Those who don't are Rh negative. A simple blood test can determine her Rh factor. If her baby is Rh positive and her Rh negative, problems can happen when the baby's blood cells enter her bloodstream. her body may react by making antibodies that can pass into the fetus' bloodstream and destroy red blood cells.These conditions are serious but manageable. So it's important to learn about them and discuss them with her health care provider (Dutta, 2013).

Many pregnant women wonder about weight gain. Generally, women of normal weight should gain about 25–35 pounds during pregnancy. For women who start their pregnancy overweight, total weight gain should be closer to 15–25 pounds. Those who are underweight should gain 28–40 pounds.Controlling weight gain is harder later in a pregnancy, so try to avoid gaining a lot of weight during the first few months. However, not gaining enough weight can cause problems too, such as poor fetal growth and premature labor. Pregnancy is **not** a good time to start a diet, but it is a great time to enjoy healthier foods. Doctors recommend that women add about 300 calories to their daily intake to help nourish the developing baby. Protein should supply most of these calories, but her diet also should include plenty of fresh fruits, grains, and vegetables.her health care provider may prescribe a prenatal vitamin to make sure she get enough iron, calcium, and folic acid. It's also a good time to get regular, low-impact exercise. Gaferi, Al-Harbi, Yakout, & Soliman, 2018)

It is important to take especially good care of mother during her pregnancy. Follow these basics don't smoke, drink alcohol, or take drugs , Get enough rest , Eat a healthy diet. Over-the-counter medicines are generally considered off-limits because of their potential effects on the fetus. Most doctors recommend not taking any OTC medicines if possible, but might offer a list of those they think are safe. Be sure to discuss any questions about medicines (including natural remedies, supplements, and vitamins) with her doctor (WHO, 2016) .

During pregnancy, it's also important to avoid foodborne illnesses, such as listeriosis and toxoplasmosis, which can be life-threatening to an unborn baby and may cause birth defects or miscarriage. Foods to steer clear of include: soft, unpasteurized cheeses (often advertised as "fresh") such as feta, goat, Brie, Camembert, and blue cheese , unpasteurized milk, juices, and apple cider , raw eggs or foods containing raw eggs, including mousse and tiramisu , raw or undercooked meats, fish, or shellfish , processed meats such as hot dogs and deli meats (these should be well cooked) Also avoid eating shark, swordfish, king mackerel, marlin, orange roughy, tuna steak (bigeye or ahi),and tilefish. Fish and shellfish can be an extremely healthy part of her pregnancy diet because they contain beneficial omega-3 fatty acids and are high in protein and low in saturated fat. But these types of fish may contain high levels of mercury, which can damage the developing brain of a fetus. (WHO, 2018).

Doctor may recommend a couple of vaccines during pregnancy. The **flu shot** can curb flu-related problems for expectant moms, who are at higher risk of problems from the illness. The flu shot is recommended by the Centers for Disease Control and Prevention (CDC) during any stage of pregnancy. Pregnant women should only get the shot, and not the nasal spray (or mist) form.The **Tdap vaccine** (against tetanus, diphtheria,

and pertussis) is now recommended for all pregnant women in the second half of *each* pregnancy, regardless of whether they've gotten it before or when it was last given. This is because there's been a rise in pertussis (whooping cough) infections, which can be fatal in newborns that have not yet had their routine vaccinations (CDC, 2016).

It is not always easy to talk to health care provider. Maybe mother wondering whether she can have sex or what to do about hemorrhoids or constipation, or maybe her feeling worried about the delivery. Mother might feel embarrassed to ask these or other questions, but it's important to do so and remember, mothers' health care provider has heard them all before. Keep a running list of questions, and take it with her to each visit. Also, **call her doctor right away** if she has heavy bleeding, a sudden loss of fluid, a noticeable absence of movement by the baby more than three contractions in an hour (Ricci et al., 2013).

2.2.12. The Tetanus vaccine:

Tetanus is an acute infectious disease caused by spores of the bacterium Clostridium tetanus. The spores are found everywhere in the environment, particularly in soil, ash, intestinal tracts/feces of animals and humans, and on the surfaces of skin and rusty tools like nails, needles, barbed wire, etc. Being very resistant to heat and most antiseptics, the spores can survive for years. Most cases occur within 14 days of infection. Tetanus cannot be transmitted from person to person (WHO, 2018).

Neonatal infection usually occurs through the exposure of the unhealed umbilical cord stump to tetanus spores, which are universally present in soil, and newborns need to have received maternal antibodies via the placenta to be protected at birth. Neonatal disease usually presents within the first two weeks of life and involves generalized rigidity and

painful muscle spasms, which in the absence of medical treatment leads to death in most cases. Global vaccination programs have reduced the global burden of neonatal tetanus deaths and continue to do so; however, because tetanus spores are ubiquitous in the environment, eradication is not biologically feasible and high immunization coverage remains essential. There is no natural immunity against tetanus, but the disease can be prevented through immunization. Tetanus vaccination at any age will prevent the disease, and the duration of protection depends on the number and spacing of the doses received. Immunization of mothers with vaccines containing tetanus toxoid (TTCV) protects both mother and newborn (WHO, 2016).

Table (2-1): Tetanus Toxoid Vaccination Schedule for Women in Reproductive Age.

Dose of TT	Minimum interval between doses	Percent protected	Duration of protection
TT1	At First Contact as early as possible in pregnancy	–	–
TT2	At least 4 weeks after TT1	80%	3 years
TT3	At least 6 weeks after TT2 or during subsequent during pregnancy	95%	5 years
TT4	At least 1 year after TT3 or during subsequent pregnancy	99%	10 years
TT5	At least 1 Year after TT4 or during subsequent pregnancy	99%	Probably for life

(Seger, 2013)

2.2.13. Breast feeding:

The American Academy of Pediatrics (AAP) recommends exclusive breastfeeding or breast feeding for the first six months of life and breastfeeding or breast feeding as the only source of milk in the first year. Human milk is the ideal food for babies. It is a dynamic material with a changing structure to meet the nutritional and immunological needs of the child's growth and development. Human milk contains active immune components that provide some protection against a wide range of bacterial and viral infections and parasites. Although breastfeeding provides a period of infertility, it is not considered an effective contraceptive method. Breastfeeding delays the return of ovulation and menstruation; however, ovulation can occur before the first menstrual period after birth (Dutta, 2013).

The composition and size of human milk varies depending on the stage of feeding. In the first stage of pregnancy, from about 16 to 18 weeks of gestation, the breasts are prepared to produce milk through the production of colostrum. Colostrum, a clear yellowish liquid, is more concentrated than mature milk and is very rich in immunoglobulin. Contains higher concentrations of protein and minerals but less fat than mature milk. The high protein level of the colostrum facilitates the binding of bilirubin, and the laxative action of the colostrum enhances the early passage of the meconium. For the mother who does not desire to, or cannot, breastfeed, commercially prepared formulas are available for bottle-

feeding. These formulas are designed to imitate human milk. Ordinary cow's milk is not recommended for the first year of life Cow's milk does not provide an adequate balance of nutrients for the growing infant, especially iron. It may also overload the infant's renal system with inappropriate amounts of protein, sodium, and minerals (Ricci et al., 2013).

Advantage of breast feeding for the mother include decreased postpartum bleeding and more rapid, uterine involution , reduced risk of ovarian cancer and breast cancer, lower risk of hypertension and cardiovascular disease , earlier return to prepregnancy weight , unique bonding experience , increased maternal role attainment (Lowdermilk et al., 2012) .

Advantage of breast feeding for the mother include decreased incidence and severity of infectious diseases: bacterial meningitis, bacteremia, diarrhea, respiratory infection, otitis media, urinary tract infection, late-onset sepsis in preterm infants ,reduced post neonatal infant mortality ,decreased rates of SIDS ,decreased incidence of type 1 and type 2 diabetes ,decreased incidence of lymphoma and leukemia , reduced risk of obesity and hypercholesterolemia, decreased incidence and severity of asthma and other allergies, possible enhanced cognitive development (Lowdermilk et al., 2012) .

Breastfeeding contraindication include an infant with galactosemia (such infants cannot digest the lactose in milk), Herpes lesions on a mother's nipples, Maternal diet is nutrient restricted, preventing quality milk production ,Maternal exposure to radioactive compounds (e.g., during thyroid testing), Breast cancer, Maternal active, untreated tuberculosis, hepatitis B or C, cytomegalovirus, or human

immunodeficiency syndrome ,Maternal active, untreated varicella. Once the infant has been given varicella zoster immunoglobulin, the infant can receive expressed breast milk if there are no lesions on the breast. Within 5 days of the appearance of the rash, maternal antibodies are produced, and thus breastfeeding could be beneficial in providing passive immunity against varicella , Mothers receiving antimetabolites or chemotherapeutic agents, Mothers receiving prescribed medications that would be harmful to an infant such as lithium or methotrexate, A mother lives in an area where environmental contaminants can be carried via breast milk to the infant (Pillitteri , 2010) .

Part Three: Previous Studies

2.3. Previous Studies

2.3.1. Knowledge, attitude and practice related to reproductive health among female adolescents

Objectives: to assess knowledge, hygiene practices during menses, and attitudes of female adolescents in Riyadh female secondary schools regarding reproductive health (RH) aspects.

Methodology: A quantitative descriptive cross-sectional was used in this study conducted on 350 female students selected from governmental secondary schools in Riyadh using multistage random sample type. Two tools were used for data collection in the current study: a self-administered questionnaire and an attitudinal assessment scale.

Results: The findings showed that more than two-thirds (66.3%) of the participants had inaccurate knowledge, while about one-third (33.7%) of them had correct knowledge regarding RH. With respect to overall hygiene practices during menstruation, about 95.4% had correct menstruation

hygiene practice, while only 4.6% had incorrect practices. The majority (88.3%) of students had positive attitudes regarding RH, while only 11.7% had negative attitudes. Mothers are a vital source of information regarding RH.

Conclusions: The present study concluded that female adolescents had unsatisfactory knowledge, inadequate hygiene practices, and positive attitudes toward RH. It is recommended to improve adolescents' knowledge regarding RH issues and involve their parents and teachers to provide appropriate education related to RH issues (Gaferi, Al-Harbi, Yakout, & Soliman, 2018).

2.3.2. Awareness and Knowledge of Sexually Transmitted Infections among Secondary School Adolescents in Ado Ekiti, South Western Nigeria

Objectives: To assess the awareness and knowledge of sexually transmitted infections among adolescents in Ado, South Western Nigeria.

Methodology: This study was used a descriptive cross-sectional design. Five hundred and fifty adolescents girls selected from public and private secondary schools in Ado Local Government Area of Ekiti State were recruited using a multistage sampling technique.

Results: Four hundred and ninety-nine (92.4%) participants had heard about sexually transmitted infections before, the three most important sources of informattion being electronic media (68.7%); teachers in school (68.1%); and printmedia (44.9%). Eighty percent of the respondents knew only one STI and the two most commonly reported ones were HIV/AIDS (78.0%) and gonorrhea (23.0%). More than 75% of the respondents aware of the modes of transmission of STIs while some of them equally had

misconception. The most important symptoms mentioned were weight loss (77.4%), pain during micturition (68.9%), and genital ulcer (54.1%). On the whole, only 6.9% of the participants had good knowledge of STIs; the rest had fair and poor knowledge.

Conclusions: Secondary school adolescents in Ado Local Government Area have only a fair knowledge of sexually transmitted diseases. STI studies should be included into the school curriculum and media publicity/enlightenment campaigns should be intensified (Amu & Adegun , 2015) .

2.3.3. HIV and Sexually Transmitted Infections knowledge and practices: a survey of female secondary school students in Enugu, South East Nigeria

Objectives: To determine the knowledge and practice of female secondary school students to sexually transmitted infections in Enugu, South East Nigeria. These could not only pose as barriers to effective sexual education and impair case management but also encourage wrong and harmful practices within the society.

Methodology: This study was cross-sectional and descriptive in design using a self- administered custom designed multiple choice questionnaire with parts on general information on sexually transmitted infections, awareness and perception of such infections. Ethical clearance and informed consents were obtained.

Results: There were 183 respondents with a mean age of 15.9 ± 1.3 years, all females. There was a high level of awareness of HIV (97.8%) and STIs (94.5%). While 74.3% had correct knowledge of modes of transmission, 60.7% incorrectly identified casual contact as modes of transmission of

HIV. Only 59% correctly identified all the HIV prevention methods tested. The median aggregate score for knowledge of transmission and prevention was 72.2%, while it was 62.5% for good preventive practices.

Conclusions: Female secondary school students in Enugu had a high level of awareness for sexually transmitted infections, especially for HIV. However, in-depth knowledge regarding mode of transmission and prevention was sub-optimal. There is a need to strengthen public and school based sexual health education in Nigeria (Nwatu, Sheng, Adikaibe, Okafor,& Onwuekwe , 2017).

2.3.4. Adolescent Girls' Awareness towards Reproductive Health in Baghdad City

Objectives: to determine the level of awareness concerning the reproductive health among adolescent females in Baghdad City.

Methodology: A cross sectional design was performed in order to assess the level of awareness about reproductive health among 180 adolescent school girls in the age 12-18 years from five secondary schools in Al-Seder Sector in Baghdad city, the data was collected by direct interview using constructed questionnaire to obtain socio-demographic characteristics and level of awareness related to reproductive health. The study started from September 2012 to January 2013.

Results: the results show that the highest percentage of girls (47.7%) was in age (17-18) year's age, (54.5%) at 4th class secondary school. The primary school is the educational background of their mothers (40.5%), (41.6%) of the respondents have large family size. Television and internet were the first source of information (40.9%) of respondents. Good awareness regarding menstruation was recorded for (45.5%) of

respondents, also good awareness regarding pubertal body changes among (51.1%) of respondents. Poor awareness recorded among respondents regarding both gynecological problems (45.6%) and (AIDS) (60.5%).

Conclusions: This study shows that good awareness regarding menstruation recorded among 45.5% of respondents, who have good awareness regarding pubertal body changes among 51.1%, and poor awareness regarding both gynecological problems and (AIDS) (45.6%) and (60.5%) respectively (Ali, 2013) .

2.3.5. Knowledge and Attitude about Reproductive Health Among Adolescent Girls in Kuppam Mandal

Objectives: to assess the effectiveness of a reproductive health education in improving the knowledge of adolescent females aged between 14-19 years in Kuppam mandal, chittoor dt, Andhra Pradesh.

Methodology: The study period was carried out over 8 months. A total of 656 girls in the age group of 14-19 years were randomly selected from 3 secondary schools in kuppam mandal, chittoor dt, Andhra Pradesh. The reproductive health education package developed in information from parents, teachers & adolescents was used to educate the girls. A (50) items structured questionnaire used to test the knowledge of all the participants about the reproductive health before & after the education session.

Results: findings of this study were described in terms of proportions & percentages, chi square test was used to test the effect of intervention. Reproductive health Knowledge score improved significantly after intervention. A significant increase in overall knowledge regarding menstrual cycle, ovulation, fertilization & pregnancy by 44.5% was noted (95%CI=42.5,46.5;P<0.001); knowledge regarding contraception improved

remarkably from 33.7% to 97.4%(P<0.0001);A significant improvement in the knowledge about trans-mission & prevention of STDs was noted after intervention (P<0.0001).

Conclusions: A reproductive health education intervention improves the knowledge & attitude among adolescent girls regarding reproductive health (Malleshappa , Krishna , & Nandini , 2011) .

2.3.6. Awareness of Adolescent Student Regarding Prenatal care

Objectives: The present study aimed to identify awareness of adolescent student regarding prenatal care.

Methodology: The study was carried out in a randomly selected six governmental secondary. A stratified random sampling technique was used in choosing the study subjects; culminating to seven hundred and twenty students from them Six hundred completed the date collection period during the academic year (2013-2014) . Two tools were developed and used to gather the important data.

Results: The Findings of the present study showed that generally students either were uncertain or had poor awareness regarding the different components related to prenatal care. The majority of students (73.5%) had a percent score lower less than 70% of the highest possible mean score concerning prenatal care in relation to: reproductive health, chronic diseases as well as nutrition /weight control. Moreover, the results reveals a statistically positive correlations between awareness percent score of students for almost all components of prenatal care except for that between nutrition and environmental factors (r=0.061, p=0.135). The researchers

recommended establishment of a sheth friendly health center within each school.

Conclusions: The Findings of this study indicated that students' awareness toward many of prenatal care was negative which reflects lack of awareness among adolescent students on prenatal care (Bassheni & Aly , 2015) .

2.3.7. Adolescents' Knowledge of Breastfeeding and Their Intention to Breastfeed in the Future

Objectives: The aim of this study is to analyze secondary school students' knowledge of breastfeeding and intention to breastfeed their children.

Methodology: based on the results of a questionnaire.The respondents were 154 students (101female/43male) of two secondary schools in Bjelovar.The participants completed a questionnaire which consisted of 23 questions about knowledge and intention to breastfeed. The answers were analyzed statistically and different results were compared by nonparametric tests.

Results: About half of the respondents think that both partners should decide on

Breast feeding and recognize the role that fathers have in initiating and maintaining breastfeeding. Only 13.64% of the respondents reported that breastfeeding is to be done only on need. Exclusive breastfeeding for 6 months, as recommended by the medical profession, is recognized by 70.13% of the students. The question on how justified is the initiation of

formula together with the mother’s milk was answered correctly by 29.22% of the students.

Conclusions: participants' knowledge of breastfeeding is insufficient (catipovic´, Baricˇic´, Rokvic, & Grguric´, 2017).

2.3.8. Knowledge, Attitude and Practice about Reproductive Health among Urban and Rural Girls

Objectives: to assess the knowledge, attitude and practice about reproductive health among 200 school girls in the age 15-19 years from rural and urban areas of Jaipur.

Methodology: Simple random sampling was carried out. Three point scale to assess awareness level of reproductive health.

Results: The result of the study showed that 40 percent rural girls and 60 percent urban girls considered menstrual cycle as natural phenomena while 39 percent of urban girls and 56 percent of rural girls took it as disease. 11 percent of urban and 28 percent of rural girls were not aware about the gap of periodic menstruation cycle. Differences were evident in the perception of urban and rural respondents regarding the right age of menarche. Menarche varied broadly, within the population. 33 percent urban respondent had prior information regarding menstruation, 62 percent rural respondent were unknown of the correct age of menarche.

Conclusions: Majority girls had several taboos, about reproductive health (Dube, & Sharma, 2012) .

2.3.9. Awareness Perception and Attitudes of Adolescent about Infertility in Kaduna State

Objectives: This study surveyed adolescent awareness perception and attitudes towards infertility and safe practices in the protection from infertility

Methodology: Study design- multicentre cross-sectional study Setting- six senior secondary schools.

Results: of the 720 respondents, 476 (66.1%) were familiar with the term infertility, 336 (46.6%) were aware that infertility is a common reason for gynaecological consultation in Nigeria, 203 (28.2%) felt that infertility could only happen to women over 40 years and 233 (32.3%) were of the opinion that infertility is 100% curable. In this study, 683 (94.9%) were interested about their ability to have babies some day, 693 (96.4%) said protecting their fertility is very important, although 261 (36.3%) students said they will be embarrass to looking for information on infertility. The students' reaction towards safe practices that could help protect from infertility showed that more than 50 percent agreed to all the measures except for abstinence from sex with a rate of 46.3%(333 respondents) and the use of birth control pills with 39.9%(287 respondents).

Conclusions: The study reemphasizes the perquisite placed on fertility in Nigerian society. Study amongst this subset of population would serve as an important tool in planning preventive programs for the unknown adolescents. Inclusion of infertility as a taught object in high school curriculum would be a rewarding step towards preventing infertility in sub-Saharan Africa (Adesiyun, Ameh, Zayyan, Sullayman, Avidime, &Koledade, 2014).

2.3.10. Adolescent Females' Understanding of Tetanus Infection and Prevention: Participation for the Disease Control in Western Nigeria

Objectives: This study assessed the information of adolescent girls about tetanus infection and prevention in order to provide information that may foster better policy.

Methodology: In this cross-sectional analytical study, 851 female adolescents were selected from eight secondary schools in Ibadan, south-west of Nigeria using a three-stage random sampling technique. A pre-tested construct questionnaire was used to obtain information on demographic and socio-economic characteristics, history of tetanus vaccination, and adolescents' knowledge of tetanus infection.

Results: Mean age of respondents was 14.3_1.9 years. Only 3.1% had received tetanus toxoid injection 1 year prior to the study, most frequently following a "wound or injury" (65.4%). Though 344 (40.4%) respondents supposed that they knew about tetanus as a "serious neurological disease," only 46.5% correctly defined tetanus. Overall, the mean knowledge score was 4.8_3.1 and 64.7% of the respondents had poor knowledge. Over half (56.2%) of the adolescents disagreed with the statement that "tetanus immunization can be given to students in the school premises

Conclusions: In all, it is apparent from the data that the understanding of adolescents in study area is less than average and majority may object to the offer of immunization in the school premises. Therefore, there is the need to improve immunization campaign against tetanus among adolescents in high schools in Nigeria (Orimadegun , Adepoju ,& Akinyinka, 2014) .

Chapter Three
Methodology

Chapter Three

Methodology

This chapter presents the research design used in the study, administrative arrangements, setting of the study, sample, data collection procedure, pilot study, data analysis and statistical methods.

3.1. Design of the Study

A descriptive analytic study was conducted to assess the level of knowledge about reproductive health among secondary school female students in Basra city from7th November, 2018 to 29th April, 2019.

3.2. Administrative Arrangements

In order to initiate this study in a formal manner, administrative permission was obtained prior to the data collection process. An official permission was obtained as the following:

A. college of Nursing, University of Baghdad (Appendix A).

B. Ministry of Planning / Central Statistical Organization and Information Technology (Appendix B).

C. College of Nursing, University of Baghdad to General Directorate of Education in AL- Basra Governorate (Appendix C).

D. General Directorate of Education in Basra Governorate to the secondary schools of AL- Basra (Appendix D).

3.3. Ethical Consideration

Verbal consent from each adolescent's girls was obtained for participation in the study.

3.4. Setting of the Study

The sample were selected from six secondary schools for female students obtained from 4^{th} - 6^{th} classes in different areas in Basra city and were selected from governmental secondary schools affiliated to the Directorate of Education of AL- Basra as shown below:

Table (3.1): Distribution of setting sample size:

List	High School Name	Gender	No. of students selected
1	**Lila al akalia**	**Female**	48
2	**Al fadhila**	**Female**	48
3	**Lhadara alearabia**	**Female**	48
4	**Alkawakib**	**Female**	48
5	**Gaza**	**Female**	47
6	**Alshanqiti**	**Female**	48

3.5. Times of Conducting the Study

Table (3-2): Times of conducting the study

Date	Work is achieved
12/11/2018	Permission obtained after getting the approval of the council of the College of Nursing – University of

	Bagdad.
15/11/2018	Questionnaire construction
12/12/2018	Permission obtained from Ministry of Planning /Central Statistical Organization
10/12/2018-20/12/2018	Validity of the questionnaire
23/12/2018	Conducting the pilot study
26/12/2018	Data collection by using a questionnaire.
5/1/2019-29/1/2019	Data analyses
2 /5/2019	Writing of the final draft.

3.6. The Sample of the Study

The study was carried out in a randomly selected six governmental females secondary schools from female's secondary schools of AL- Basra city, Selection (287) of the females students that was not married from secondary schools and this selection was done by a following equation .The data collected by Distribution of questionnaire forms for the participants in grouping for self-filling Technique. The study sample included (48) participants from Lila al akalia, and (48) participants from Al fadhila, and (48) participants from Lhadara alearabia, and (48) participants from Alkawakib, and (47) participants from Gaza , and (48) participants from Alshanqiti from AL- Basra city.

The equation that used for selection the sample size of the study:

$$\text{Sample size} = \frac{\text{total Number of students in al-basra}}{18}$$

3.7. Inclusion and Exclusion Criteria

3.7.1. Inclusion Criteria

1. All females student’s in secondary schools.

2. Unmarried students.

3.7.2. Exclusion Criteria

1. Married students

2. Who are not willing to participate and not available during the data collection.

3.8. Instrument Construction

A questionnaire forma designed for purpose of the study, assessment tool was constructed by the researcher after extensive review of previous studies and relevant literature. The study instrument consists of two main parts (Appendix E), which contains the following variables:

Part 1: Socio-Demographic characteristics

It was composed of (9) variables that represent the Socio-demographic characteristics of the study sample which included : (Age , school name, siblings, Residency, The students live with , Occupation of father and mother, Socio economic status, Educational attainment, and source of information of the students).

Part 2: Knowledge about Reproductive Health

This part is composed of (62) items divided into (13) categories:

1. Signs of Puberty (5) items

2. Menstruation (4) items

3. Dysmenorrhea (5) items

4. Infertility (6) items

5. Premarital Counselling (5) items

6. Preconception Counselling (5) items

7. Terms of Pregnancy (4) items

8. Healthy Pregnancy (5) items

9. The Role of Primary Health Care Center in Pregnant Health (4) items

10. Sexually Transmitted Diseases (7) items

11. Preventive Methods from Sexual Transmitted Diseases (3) items

12. Tetanus Vaccine (4) items

13. Breast Feeding (5) items

3.9. Validity of the Instrument (Questionnaire)

The content validity was examined by a panel of (12) experts (Appendix F) from different scientific branches having at least 10 years of experience in their field of work (mean of their year of experiences 26.16). Those experts were (6) faculty members from maternity and neonatal health nursing specialty, (3) were from Community health nursing specialty , and (1) was from family medicine specialty, and (1) was from community medicine specialty, (1) was from obstetric board.

They were asked to review the questionnaire form and given their opinions whether they agreed or disagreed with it is content regarding secondary school female students' knowledge about reproductive health. On the basis of their comments and suggestion, some items where modified and all experts' opinions were taken into consideration.

3.10. The Pilot Study

Prior to data collection, pilot study was conducted on (30) students girls from (1) secondary school females (Nur alzahara') in Basra city .Pilot study was conducted by researcher during the period from (23^{th} of December to 29^{th} of December, 2018). The samples of the pilot study were excluded from the original sample of the study.

There are several reasons for conducting a pilot study that includes:

1. Determining the feasibility and reliability of the study.
2. Identifying the required time to fill the questionnaire.
3. Gaining experience with the methodology and instrument
4. Determining the potential problem in data collection.
5. Identifying the study barriers.

After conducting a pilot study revision had been made, some items were modified and others were added or deleted from questionnaire form, in addition, the time required for each interview ranged from (15-20) minutes for each girls.

3.11. Reliability of Instrument

Reliability was used to determine the accuracy of the questionnaire, research instrument had been evaluated through the SPSS program by applying Cronbach's Alpha for (62) items.

Table (3-3): Reliability Test for the Study Instrument

Reliability Statistics		
Cronbach's Alpha	**NO. of Items**	**NO.**
.728	62	30

The result of table (3-3) shows that Cronbach's alpha of .70 or greater is

considered satisfactory (Grove, Burns, & Gray, 2013).

3.12. Data Collection

Data were collected by using a self-reported questionnaire was used to collect data. The data were collected after obtaining the agreement from students to participate in the study through interview and informed them about the study objectives this was done orally by the researcher. The data were collected for period from 26th December 2018 to 4th January 2019.

3.13. Rating and Scoring of the Scale

The items have been rated and scored according to the following patterns:

Polytomous scoring are used for rating the items as (Know, Not sure, and don't know). The respondent of each question is scored with (2) for know, (1) for don't sure and (0) for don't know for all items, Data of the study were sorted according to three levels of scale (Know, Not sure, and don't know). As early stated which were scored as (2, 1, and 0) for each level respectively. The scale assessed by cut-off- point (1.5) (Cut-off-point: less than 0.6 = Low; 0.7-1.3= Moderate; 1.4-2= High).

3.14 .Statistical Analyses

After the collection of data, they have been coded and analyzed by the application of statistical procedures and by using Statistical Package of Social Science (SPSS) program (version 24) to analyze and assess the results of the study, which include:

3.14.1. Descriptive Data Analyses

1. Frequencies, Percentages and Mean of Scores were used in tables in order to get the total results of the sample and to make a comparison between the variables.

$$\% = \frac{\text{Frequencies}}{\text{Sample size}} \times 100$$

2. Mean of score (M.S)

$$\text{M.S} = \frac{\sum \text{ri=1Fi x Si}}{\sum \text{ri= 1Fi}}$$

3. SD: Standard Deviation

$$\text{S.D} = \sqrt{\frac{\sum (\text{xi}-\text{x})^{2}\ \text{fi}}{\sum \text{fi}}}$$

3. $\text{RS} = \frac{mean\ of\ score}{number\ of\ score} * 100$

4. T- test :

$$\text{t} = \frac{m}{s/\sqrt{n}}$$

3.14.2. Inferential Data Analysis

1. Pearson correlation coefficient was used to find out the relationship between two variables and to determine the direction as well as the strength of this relationship.

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n(\sum x^2) - (\sum x)^2]\,[n(\sum y^2) - (\sum y)^2]}}$$

r = Pearson r correlation coefficient

N = number of observations

∑xy = sum of the products of paired scores

∑x = sum of x scores

∑y = sum of y scores

∑x2= sum of squared x scores

∑y2= sum of squared y scores

2. Cronbach's Alpha was used to test the reliability of research checklist

$$\alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N-1) \cdot \bar{c}}$$

3.15. Limitations of the Study

Difficulty in transportation to some secondary school girls, the researcher required a lot of time, effort, and expenses during data collection.

Chapter Four
Results of the Study

Chapter Four

Results of the Study

Chapter four represents the research problem explained in details through the analysis of its variables' data and organized systematically in tables in form to be compatible with the research objectives

Table (4-1): Socio-demographic Characteristics of the Study Sample No= 287

No	Variables	Classification	F	%
1	Age	14-18 years	237	82.57
		19-23	50	17.43
2	Siblings of the students	1-4	90	31.3
		5-8	172	60.2
		9-12	25	8.5
3	Residency	Urban	264	93.0
		Rural	23	7.0
4	Students live with	Both parents	264	93.0
		with father	5	1.7
		with mother	18	5.3
		with relatives	0	0.00
5	Father Occupation	Governmental Employee	100	34.8
		Private Sector Employee	27	9.4
		Free business	73	25.6
		Retried	87	30.2
6	Mother Occupation	Governmental Employee	20	7.0
		Private Sector Employee	7	2.4
		Retried	95	33.1
		House wife	165	57.5
7	Family	Low	183	63.7

	income from students point of view	Moderate	83	29.0
		High	21	7.3
8	**Educational Attainment**	Excellent	63	21.9
		Very good	64	22.3
		Good	99	34.5
		Moderate	59	20.6
		Low	2	0.7
9	**Source of Information**	Reading external books	88	30.6
		Browsing internet	179	62.4
		Others	20	7.0

Table 4-1: Shows that highest percentage (82.57%) of students, were in age group(14-18) (60.2%) from students have between (5-8) brothers and sisters, (93%) of students live in urban area, (93.0%) of them live with their parents, (34.8%) of the students' fathers are governmental employees, and (57.5%) of the student mothers were housewives, (63.7%) of the student families have low income, (34.5%) of students are at good level of attainment education, (62.4%) are browsing internet.

Table (4-2) Assessment of student's knowledge about Signs of Puberty

Students' knowledge about Signs of Puberty		M.S	S.D.	Ass.	Rs
1	Hair growth	0.76	0.64	M	38
2	Breasts enlarge in puberty	0.77	0.63	M	38.5
3	Hips enlargement in puberty	0.77	0.62	M	38.5
4	Start of menstrual cycle	0.87	0.60	M	43.5
5	Increase secretion of sweat glands and fat accumulation in certain areas of the body	0.60	0.58	L	30
Total mean		0.75		M	

Table 4-2: show assessment of student's knowledge about Signs of Puberty which was moderate level.

Students' knowledge about Menstruation		M.S	S.D	Ass.	Rs
1	Menstruation is a pathological process	0.72	0.79	M	36
2	Normal cycle length > 35 days	1.70	0.73	H	85
3	Causes of menstruation are hormones	0.75	0.70	M	37.5
4	Source of menstrual bleeding is vagina	1.13	0.96	M	56.5
Total mean		0.82		M	

Table (4-3) Assessment of student's knowledge Menstruation

Table 4-3: show assessment of student's knowledge about Menstruation which was moderate level

Table (4-4) Assessment of student's knowledge about Dysmenorrhea (pain during menstrual cycle)

Students' knowledge about Dysmenorrhea (pain during menstrual cycle)		M.S	S.D.	Ass.	Rs
1	Dysmenorrhea is a pain in the pelvic or in the lower abdomen	0.75	0.72	M	37.5
2	Diarrhea occur during dysmenorrhea	0.78	0.71	M	39
3	There is three types of dysmenorrhea	0.45	0.50	L	22.5
4	Pelvic inflammatory diseases rarely cause dysmenorrhea	0.75	0.60	M	37.5
5	Primary dysmenorrhea start with menstrual periods	0.60	0.69	L	30
Total mean		0.66		L	

Table 4-4: show assessment of student's knowledge about Dysmenorrhea (pain during menstrual cycle) which was low level.

Table (4-5) Assessment of student's knowledge about Sexually Transmitted Diseases

Students' knowledge about Sexually Transmitted Diseases		M.S	S.D.	Ass.	Rs
1	Sexually transmitted diseases can be transmitted by Exposure to cough and sneeze from infected persons	0.42	0.61	L	21
2	Transfusion of blood from one person to another	0.50	0.69	L	25
3	Unprotected sexual intercourse	0.64	0.64	L	32
4	Sharing the same plate with infected person may have effect	0.77	0.63	M	38.5
5	From needles and syringes	0.76	0.74	M	38
6	Transfer from infected mother to her fetus	0.81	0.70	M	41.5
7	One types of STD is syphilis	0.60	0.55	L	30
Total mean		0.64		L	

Table 4-5: show assessment of student's knowledge about Sexually Transmitted Diseases which was low level.

Table (4-6) Assessment of student's knowledge about Preventive Methods from Sexual Transmitted Diseases

Students' knowledge about Preventive Methods from Sexual Transmitted Diseases		M.S	S.D.	Ass.	Rs
1	Use of condom during sexual intercourse protect against sexual transmitted diseases	0.82	0.70	M	41
2	Don't share with others sharp or engraving tools	0.61	0.61	L	30.5
3	Having a single faithful partner	0.63	0.64	L	31.5
Total mean		0.68		L	

Table 4-6: show assessment of student's knowledge about Preventive Methods from Sexual Transmitted Diseases which was low level.

Table (4-7) Assessment of student's knowledge about Infertility

Students' knowledge about Infertility		M.S	S.D.	Ass.	Rs
1	Alcohol can predispose to infertility	0.72	0.79	M	36
2	Is easy for a woman to conceive after 40years	0.61	0.61	L	30.5
3	Smoking can predispose to infertility	0.59	0.75	L	28.5
4	Sexually transmitted infection can cause infertility	0.70	0.64	M	35
5	Being underweight or overweight effect on infertility	0.66	0.74	L	33
6	Infertility can only occur after 40 years of age in female	0.59	0.70	L	28.5
Total mean		0.64		L	

Table 4-7: show assessment of student's knowledge about Infertility which was low level.

Table (4-8) Assessment of student's knowledge about Premarital Counselling

Students' knowledge about Premarital Counselling		M.S	S.D.	Ass.	Rs
1	Thalassemia test	0.60	0.70	L	30
2	Screening for Hepatitis type B	0.59	0.69	L	29.5
3	Detection for hypertension	0.81	0.70	M	40.5
4	Screening for thalassemia and hepatitis type B	0.55	0.68	L	26.5
5	Detection for any genetic diseases	0.84	0.70	M	42
Total mean		0.67		L	

Table 4-8: show assessment of student's knowledge about Premarital Counselling which was low level.

Table (4-9) Assessment of student's knowledge about Preconception Counselling

Students' knowledge about Preconception Counselling		M.S	S.D.	Ass.	Rs
1	Avoiding tobacco and other drugs	0.87	0.70	M	43.5
2	seeking further information about pregnancy and care of the children	0.62	0.73	L	31
3	Life styles change (healthy weight)	0.60	0.61	L	30
4	Eating more healthily	0.79	0.70	M	39.5
5	Took folic acid	0.53	0.60	L	26.5
Total mean		0.68		L	

Table 4-9: show assessment of student's knowledge about Preconception Counselling which was low level.

Table (4-10) Assessment of student's knowledge about Conditions of Pregnancy

Students' knowledge about Conditions of Pregnancy		M.S	S.D.	Ass.	Rs
1	Hormone necessary for the occurrence and continuation of pregnancy is testosterone	0.73	0.74	M	36.5
2	The pregnancy with age more than 35 years occur without complication	0.73	0.75	M	36.5
3	There are no health contraindications for anemic woman to become pregnant	0.64	0.73	L	32
4	Extreme underweight in a pregnant woman may adversely affect her and her baby	0.71	0.75	M	35.5
Total mean		0.7		M	

Table 4-10: show assessment of student's knowledge about Conditions of Pregnancy which was moderate level.

Table (4-11) Assessment of student's knowledge about Healthy Pregnancy

Students' knowledge about Ingredients of Healthy Pregnancy		M.S	S.D.	Ass.	Rs
1	Presence of birth defects in the couple's family does not increase the possibility of appearance of these defects among their children	0.85	0.80	M	42.5
2	Regular antenatal checkup is essential during pregnancy	0.75	0.71	M	37.5
3	Folic acid deficiency has no relation with congenital anomalies	0.60	0.56	L	30
4	Laboratory investigations are necessary when the health condition necessitates this and as long as the woman is not pregnant so there is no need to carry out these investigations	0.61	0.57	M	30.5
5	Proper diet, rest & mild exercise is essential during pregnancy	1.03	0.69	M	51.5
Total mean		0.76		M	

Table 4-11: show assessment of student's knowledge about Healthy Pregnancy which was moderate level.

Table (4-12) Assessment of student's knowledge about The Role of Primary Health Care Center in Pregnant Health

Students' knowledge about The Role of Primary Health Care Center in Pregnant Health		M.S	S.D.	Ass.	Rs
1	Hypertension with pregnancy may increase risks on pregnancy	0.67	0.74	L	33.5
2	Diabetes Mellitus may have health impact on the pregnant woman and her baby	0.62	0.63	L	31
3	There is no causal relationship between nutrition in general and the health of the mother and/or her fetus	0.60	0.62	L	30
4	Breast feeding should start soon after birth of the baby	0.86	0.72	M	43
Total mean		0.68		L	

Table 4-12: show assessment of student's knowledge about The Role of Primary Health Care Center in Pregnant Health which was low level.

Table (4-13) Assessment of student's knowledge about Tetanus Vaccine

Students' knowledge about Tetanus Vaccine		M.S	S.D.	Ass.	Rs
1	People who are not completely immunized and have wounds should receive a tetanus immunization	0.75	0.72	M	37.5
2	Tetanus is acquired through contact with the environment; it is not transmitted from person to person	0.65	0.59	L	32.5
3	The agent responsible for tetanus is found throughout the environment, usually in soil, dust, and animal waste	0.60	0.60	L	30
4	Tetanus is an infectious disease caused by contamination of wounds	0.67	0.65	L	38.5
Total mean		0.66		L	

Table 4-13: show assessment of student's knowledge about Tetanus Vaccine which was low level.

Table (4-14) Assessment of student's knowledge about Breast feeding

Table 4-14: show assessment of student's knowledge about Breast feeding which was moderate level.

Students' Knowledge about Breast feeding		M.S	S.D.	Ass.	Rs
1	Breast feeding help in contract of uterus and return in his normal position	0.80	0.70	M	40
2	Breast feeding is one mean of family planning	0.87	0.71	M	43.5
3	Breastfeeding protects a child from infectious diseases and allergies	0.72	0.67	M	36
4	Bottle feeding is having the same healthy benefit as the same with breast feeding	0.80	0.67	M	40
5	Duration to continue breastfeeding is 1 year	0.50	0.60	L	25
Total mean		0.73		M	

Less than 0.6 = low knowledge (P.); moderate knowledge (M) = 0.7-1.3; high knowledge (H) = 1.4-2

Table (4-15): Summary of total mean of the Students knowledge regarding Reproductive Health

No	Domains of knowledge	M	Ass.
1	Students' knowledge about Menstruation	0.82	M
2	Students' knowledge about infertility	0.64	L
3	Students' knowledge about Sexually Transmitted Diseases	0.64	L
4	Students' knowledge about preventive methods from sexual transmitted diseases	0.68	L
5	Students' knowledge about Signs of Puberty	0.75	M
6	Students' knowledge about premarital Counselling	0.67	L
7	Students' knowledge about preconception counselling	0.68	L
8	Students' knowledge about Conditions of pregnancy	0.7	M
9	Students' knowledge about healthy pregnancy	0.76	M
10	Students' knowledge about the role of primary health care center in pregnant health	0.68	L
11	Students' knowledge about Tetanus vaccine	0.66	L
12	Students' knowledge about Dysmenorrhea (pain during menstrual cycle)	0.66	L
13	Students' knowledge about Breast Feeding	0.73	M
		0.69	**L**

Table 4-15: The summary of students' knowledge about reproductive health domains which is at a low level (0. 69).

Table 4-16: Association between Students' Knowledge and their Age, Frequency of Students among Brothers and Sisters, Living, and External Information

Variables		Sum of Squares	df	Mean Square	F	Sig. P≤0.05
Age	Between Groups	8.417	57	.148	1.009	.467 NS
	Within Groups	33.520	229	.146		
	Total	41.937	286			
Frequency of student among brothers and sisters	Between Groups	20.738	57	.364	1.430	.036 S.
	Within Groups	58.280	229	.254		
	Total	79.017	286			
Living	Between Groups	.139	57	.002	.553	.971 NS
	Within Groups	.857	229	.004		
	Total	.997	286			
External Information	Between Groups	83.987	57	1.473	1.390	.048 S.
	Within Groups	242.814	229	1.060		
	Total	326.801	286			

Table 4-4: presents that there was significant association between the students' knowledge and siblings, and their source of information from internet, and there was no significant association between the students' knowledge and their age, and living of students at P≤0.05 level

Table 4-17: Statistical Differences between Students' Knowledge and their Residency, Fathers' works, Family income, and Educational attainment

	Variables	Mean	N	SD	t. test	df	Sig. P≤0.05
1	**Residency**	48.4843	287	13.03675	61.661	286	.019 HS.
	knowledge	1.0035	287	.05903			
2	**Father works**	1.1429	287	.49875	61.321	286	.00269 HS.
	knowledge	48.4843	287	13.03675			
3	**Family income**	48.4843	287	13.03675	57.603	286	0.0399 S.
	knowledge	4.0418	287	1.04363			
4	**Educational attainment**	2.3589	287	1.24321	-59.732	286	.850 NS
	knowledge	48.4843	287	13.03675			

Table 4-5: shows that there were significant statistical differences between students' knowledge and their residency, and students' fathers' works, family income and there were no statistical differences between students' knowledge and students' attainment in their education.

Chapter Five
Discussion of the Study Results

Chapter Five

Discussion of the Study Results

This chapter clarifies systematically the discussion of results which are drawn to a reasonable extent of the results with the provision of available literature and related studies.

5.1. Discussion of Socio-Demographic Characteristics (Table 4-1):

Age

The majority of the respondents 237 (82.57%) are in the age group (14-18years). This result is consistent with that obtained by peter, (2013) who stated that the most of participants were in the age group (13-18 years old).and inconsistent with study done by Amu and Adegun, (2015) who stated that the majority of the respondents 266 (59.51%) are in the age group (15-19) years. and inconsistent with Sharifa et al., (2018) who stated that most of their participants (52.3%) in the age group (17-19) years old. The researchers believes that this age is the dominants age for students of secondary school.

Siblings of the students:

Most of the participants 173 (60.2 %) have (5-8) siblings .This result is consistent with that obtained by Nagar and Aimol ,(2010) who stated that Majority of the girls (30%) were having siblings(4 and above) which means that the families of the respondents were large and having many brothers and sisters .

Residency

Majority (93%) of participants reported that they live in urban area .This consistent with result of the study done by Catipovic et al., (2017) who stated that most of the participants live in urban areas. This proves that most of rural girls do not have access to schools for distance or for other reasons, thus reducing their access to communication and information.

Students live with

Most of the participants (93.0%) live with their parents; this is consistent with Peters' study, (2013) who stated that the majority of participants live with their parents.

Fathers' Occupation

Most of the students' fathers' occupation was governmental employee (34.8%). the results of this study consistent with the study of Upashe, Tekelab and Mekonnen , (2015) who stated that fathers occupation were governmental employee 201 (31.2%) .

Mothers' Occupation

Regarding occupation, the majority of the students' mothers were housewives (57.5%).the results of this study consistent with that obtained by Upashe et al., (2015) who stated that most of the mothers were housewives 269 (32.7).

Socio Economic Status

The monthly income results of this study sample from student's points of view were low 183(63.7%). Consistent with the study done by

Malleshappa et al. , (2011) who stated that monthly income of majority of participants were low 338 (51.52 %).

Educational Attainment

The majority of the participants are at good level of educational attainment (34.5%), this study results was inconsistent with that obtained by catipovic´et al., (2017) who stated that most of participants were very good.

Source Information

The majority of participants reported that they were browsing internet (62.4%) , inconsistent with the results' study of Mattebo, Elfstrand, Karlsson, and Erlandsson, (2015) who stated that 78% of participants were receiving information from their friends .The researcher believes that this can increase their knowledge and information.

5.2. Discussion of Student's Knowledge about sings of puberty (Table 4-2):

Regarding sings of puberty , the participants have moderate knowledge about signs of maturity (Hair growth, Breasts enlarge in puberty, Hips enlargement in puberty,,,etc), (Mean=0.75).This findings consistent with Peters' study, (2013) who stated that female students were more likely to have moderate knowledge regarding the physical changes of girls. This proves that the girls were aware about physical changes during puberty from their mothers and another resource.

5.3. Discussion of Student's Knowledge about Menstruation (Table 4-3):

The findings of this study showed that the participants have moderate knowledge about menstruation (menstruation means ,normal cycle length, causes of menstruation, and source of menstrual bleeding) ,(Mean =0.82).This result is inconsistent with the study of Fehintola et al.,(2017) who stated that more than half of participants have good knowledge about menstruation. This difference may be due there is no programs in the Iraqi secondary schools and especially in the biology lessons.

5.4. Discussion of Student's Knowledge about Dysmenorrhea (table 4-4)

The study revealed that students have low information regarding dysmenorrhea (Dysmenorrhea is a pain in the pelvic or in the lower abdomen, diarrhea occur during dysmenorrhea,,,etc),(M=0.66).This finding is disagreement with study of samerai, (2009) who stated that the adolescent girls have moderate knowledge concerning dysmenorrhea.

5.5. Discussion of Student's Knowledge about Sexually Transmitted Diseases (Table 4-5):

Regarding sexually transmitted diseases, the participants have low information regarding STDS (Sexually transmitted diseases can be transmitted by Exposure to cough and sneeze from infected persons, Transfusion of blood from one person to another, Unprotected sexual intercourse,,,etc), (Mean=0.64). This result is consistent with Alis' study, (2013) who stated that (55.4%) of adolescent girls had poor awareness regarding sexually transmitted diseases .The researcher believes that girls still ignorant about many aspects of reproductive health especially regarding sexually transmitted diseases.

5.6. Discussion of Student's Knowledge about Preventive Methods from Sexual Transmitted Diseases (Table 4-6):

Concerning prevention ways from STDS, the participants reported that they have low knowledge about prevention methods (Use of condom during sexual intercourse protect against sexual transmitted diseases, Don't share with others sharp or engraving tools, Having a single faithful partner), (Mean=0.68).This is consistent with that obtained by Nwatu, Young, Adikaibe, Okafor, and Onwuekwe, (2017) who stated that knowledge of appropriate preventive measures and practices for STIs and HIV, more than a quarter of the students were not of aware that having a single faithful partner was an effective method of prevention while only three quarters have good knowledge of all preventive measures assessed. This proves that this issue is considered embarrassed and have low communicated among members of society.

5.7. Discussion of Student's Knowledge about Infertility (Table 4-7):

Concerning infertility**,** the study finding revealed that the students have low knowledge about infertility (Alcohol can predispose to infertility, is easy for a woman to conceive after 40years, Smoking can predispose to infertility,,, etc) , (Mean =0.64).the results of the study was inconsistent with that obtained by Adesiyun et al., (2014) who stated that the knowledge of participants regarding infertility was moderate. The researcher believes that the students may not have heard about infertility

because this subject didn't occur in the family or because such students are unmarried and didn't bring their attention for reading about it.

5.8. Discussion of Student's Knowledge about Premarital Counselling (table 4-8)

The study revealed that the girls have low knowledge about premarital counselling (Thalassemia test, Screening for Hepatitis type B, Detection for hypertension,,,etc), (Mean=0.67).This result is inconsistent with kmails' study, (2011) who stated that the participants have good knowledge about premarital screening (mean=0.76). The researcher believes that this is due to the neglect of the visit of school health care providers to schools and give them information about pre married Counsel.

5.9. Discussion of Student's Knowledge about Preconception Counselling (table 4-9)

The study revealed low knowledge about preconception counselling of the participants (avoiding tobacco and other drugs, seeking further information about pregnancy and care of the children, Life styles change (healthy weight),,,etc),(Mean=0.68).This is consistent with the results' study done by Nascimento , Borges, Fujimori, Tsunechiro, Chofakian, & Santos, (2015) who stated that there was a small proportion of adolescents who have poor preconception information. The researcher proves that the study done for unmarried adolescent, on another hand the students they may not hear about this items , so they do not have enough information about this matter .

5.10. Discussion of Student's Knowledge about of Conditions of Pregnancy (table 4-10)

Regarding the conditions of pregnancy, the participants reported moderate knowledge about this topic (Hormone necessary for the occurrence and continuation of pregnancy is testosterone, The pregnancy with age more than 35 years occur without complication, There are no health contraindications for anemic woman to become pregnant,,,etc), (Mean=0.7).This result is inconsistent with study of Basyouni, and Aly, (2015) who showed that the participants have poor knowledge concerning this subject. This proves the lack of awareness and neglect of family members to talk about the importance of this subject .

5.11. Discussion of Student's Knowledge about healthy pregnancy (table 4-11)

Concerning the healthy pregnancy, the study showed that the students have moderate knowledge about this item (Presence of birth defects in the couple's family does not increase the possibility of appearance of these defects among their children, Regular antenatal checkup is essential during pregnancy, Folic acid deficiency has no relation with congenital anomalies), (Mean=0.76).This result is inconsistent with that by Basyouni, and Aly, (2015) who showed that the participants have little information about healthy pregnancy, This can due to Lack of educational programs on health topics .

5.12. Discussion of Student's Knowledge about the Role of Primary Health Care Center in Pregnant Health (table 4-12)

The study showed that the participants reported low knowledge regarding this item (Mean =0.68).This finding is consistent with that by Basyouni et al., (2015) who stated that the participants have low knowledge about this item. This proves that the adolescent didn't visit the antenatal care because they are unmarried and ignore their family the necessity of the antenatal care.

5.13. Discussion of Student's Knowledge about Tetanus Vaccine (table 4-13)

Concerning the tetanus vaccine, the students showed that they have low knowledge about this vaccine (People who are not completely immunized and have wounds should receive a tetanus immunization..,etc), (Mean=0.66).This result of the study agreement with the study by Orimadegun, et al., (2014) who showed that Almost two- thirds (64.7%) of the respondents had poor knowledge about tetanus vaccine. This can be due to less awareness that given by primary health care provider when given this vaccine, on another hand failure to receive the dose of this vaccine leads to insufficiency of recognition about it.

5.14. Discussion of Student's Knowledge about Breast feeding (table 4-14)

Regarding the participants knowledge about breast feeding were moderate (Should breastfeeding be continued during TB, AIDS and Hepatitis B. students, Breast feeding is one mean of family planning, Breastfeeding protects a child from infectious diseases and allergies), (M=0.73).This result is disagreement with that obtained by Catipovic et al., (2017) who showed that Secondary school students' knowledge of

breastfeeding is insufficient. This proves that this topic has sensitiveness for family to discuss with their girls.

5.15. Discussion of Total means of the knowledge domains regarding Reproductive Health (Table 4-15)

This study presented that the total mean for each domains of knowledge which as all domains was at low level concerning the students' knowledge. The results of this study are inconsistent with Kmails' study, (2011) that represents that the total mean of knowledge was moderate among students regarding the reproductive health.

5.16. Discussion of Association between Student Knowledge and their Age, Siblings of Student, and Source of Information (Table 4-16)

The results present that there were significant association between the students' knowledge and Siblings of Student, and source of information from internet, and there was no significance between the students' knowledge and their age, and living of student at $P \leq 0.05$ level, and the result is consistent with study of Siabani, Charehjow, & Babakhani, (2018) who stated that the source of information is significantly associated with the participants' level of knowledge.

5.17. Discussion of Statistical Differences between Students' Knowledge and their Residency, Father Works, Family Income, and Educational Attainment (Table 4-17)

The result shows that there were significant differences between students' knowledge and their residency, student father works and family income, and there were no statistical association between knowledge and

student’s attainment in their education. It is consistent with the study by Siabani et al., (2018) who stated that family income of the participants is significantly associated with participants’ knowledge. And inconsistent with the study by Kitesa, Getahun, & Wako, (2016) who stated that there is significant association between the participants knowledge with their educational status. This may be due to the curriculums which have low information about reproductive health.

Chapter Six
Conclusions and Recommendations

Chapter Six

Conclusions and Recommendations

6.1. Conclusions

The present study has come with the following conclusions:

6.1.1-Majority of present study that represent more than three fourth of this study sample aged (14-18) years, siblings of students (5-8), they live in urban area, they live with their parents, fathers have governmental employees, their mothers were housewives, family have low income, good level of educational attainment, and browsing internet was the source of information.

6.1.2- Students knowledge toward reproductive health which as the total means of all items knowledge was low level.

6.1.3- There was a significant statistical correlation among students' knowledge and their siblings of students, source of information from internet, residency, fathers' works, and family income while no significant statistical correlation with their age, living of students and student's attainment in their education.

6.2. Recommendations

6.2.1- Educational programs are very important to improve students' knowledge about reproductive health through direct lectures, school health providers, and through mass media and to have special curriculums in the teaching programs to improve their knowledge about the reproductive health and allocating an activity for the students for discussing the topics that belong to the reproductive health.

6.2.2- Recommend to working on a large sample or a global program to improve reproductive health in the country and to minimize infertility and subfertility.

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Ministry of Higher
Education &
Scientific Research
University of Baghdad
Colledge of Nursing
Registrar Office
Ref:
Date:

بسم الله الرحمن الرحيم
جمهورية العراق

وزارة التعليم العالي
والبحث العلمي
جامعة بغداد
كلية التمريض
الدراسات العليا
العدد: ٨٣٨٠
التاريخ: ٢٠١٢/١١/٢٢

الى / وزارة التخطيط / الجهاز المركزي للاحصاء وتكنولوجيا المعلومات
م/ تسهيل مهمة

تحية طيبة ...

يرجى التفضل بالموافقة على تسهيل مهمة طالبة الماجستير (**علياء حسين علي**) لغرض حصولها على الاحصائيات المتعلقة ببحثها الموسوم (تقييم معارف واتجاهات طالبات المدراس الاعدادية حول الصحة الانجابية في مدينة البصرة)

مع التقدير...

أ.د. هدى باقر حسن
معاون العميد للشؤون العلمية
والدراسات العليا

نسخة منه الى//

التسجيل / الدراسات العليا
الصادرة

C olledge of nursing /University of Ba ghdad Bab Al Mua'adham-Baghd ad –Iraq
P. O. Box: (14149)

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كلية التمريض/جامعة بغداد
العراق-بغداد-باب المعظم
ص.ب:(١٤١٤٩)

Appendix (B)

REPUBLIC OF IRAQ
MINISTRY OF PLANNING
CENTRAL STATISTICAL
ORGANIZATION

جمهورية العراق
وزارة التخطيط
الجهاز المركزي للإحصاء

الدائرة: الإدارية والمالية
المديرية: النشر والعلاقات

العدد: ١٢٢٥٥/ن/١/٢/١
التاريخ: ٢٠١٨/١٢/١٠

الى / جامعةبغداد / كلية التمريض

م / تسهيل مهمة

تحية طيبة...

أشارة الى كتابكم المرقم 9390بتاريخ 2018/11/22

تمت الموافقة على اجراء الاستبيان المقدم من طالبة الماجستير (علياء حسين علي) والمتعلق ببحثها الموسوم (تقييم معارف واتجاهات طالبات المدارس الاعدادية حول الصحة الانجابية في مدينة البصرة) .

للتفضل بالاطلاع واتخاذ مايلزم بضوء ذلك على ان تؤخذ الملاحظات المدرجه ادناه.

مع التقدير ....

الملاحظات :-

-نقترح ان يتضمن الاستبيان مايلي:

-رقم الاستبيان

-اسم المدرسة

-الموقع الاداري (وان يكون قبل السؤال عن العمر)

-الحالة الزواجية : نقترح ان يكون بتفصيل اكثر ☐غير متزوجة ، ☐متزوجة ، ☐ مطلقة

☐رملة ، ☐ منفصلة .

- السؤال الثامن : ورد في الاستبيان عمل الاب ☐ ، عمل الام☐ بهذه الصيغة سيكون تبويب البيانات صعب وتكون بمهن متعددة لايمكن حصرها لذا نقترح ان تكون بالشكل التالي :

1) موظف حكومي2) موظف قطاع خاص 3) ربة بيت 4)متقاعد 5) له ايراد ولايعمل 6) اخرى تذكر

- الحالة الاقتصادية : نقترح تغييرها الى الدخل الشهري بالشكل التالي:

(اقل من ٢٠٠٠٠٠دينار ☐ ٢٠٠٠٠٠-٥٠٠٠٠٠ ☐ ٥٠٠٠٠٠-٨٠٠٠٠٠ ☐ ٨٠٠٠٠٠-١٠٠٠٠٠٠ ☐ ١٠٠٠٠٠٠-١٠١٠٤٠٠٠ ☐ ١٠٤٠١٠٠٠-١٠٧٠٠٠٠٠ ☐ ١٠٧٠٠٠٠٠ فاكثر) .

د. ضياء عواد كاظم

رئيس الجهاز المركزي للاحصاء

2018/12/9

www.cosit.gov.iq

بغداد / كرادة مريم/ قرب جسر الجمهورية

Ministry of Higher Education & Scientific Research
University of Baghdad
College of Nursing
Registrar Office
Ref:
Date:

بسم الله الرحمن الرحيم
جمهورية العراق

وزارة التعليم العالي
والبحث العلمي
جامعة بغداد
كلية التمريض
الدراسات العليا
العدد: ٥٧٦
التاريخ: ١٨/١٢/١٩

الى / مديرية تربية البصرة
م/ تسهيل مهمة

تحية طيبة ...

يرجى التفضل بالموافقة على تسهيل مهمة طالبة الماجستير (**علياء حسين علي**) لغرض جمع العينات المتعلقة ببحثها الموســـوم (تقييم معارف واتجاهات طالبات المدارس الاعدادية حول الصحة الانجابية في مدينة البصرة).

مع التقدير...

أ.د. هدى باقر حسن
معاون العميد للشؤون العلمية
والدراسات العليا

نسخة منه إلى//
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كلية التمريض/جامعة بغداد
العراق-بغداد- باب المعظم
ص.ب: (١٤١٤٩)

Appendix (C)

بسم الله الرحمن الرحيم

بسم الله الرحمن الرحيم

جمهورية العراق
وزارة التربية

المديرية العامة للتربية في محافظة البصرة
قسم التخطيط التربوي /شعبة التخطيط
العدد : ٢/٣/٤٩/ ٤٤٤
التاريخ: ٢٠١٨/١٢/٢١

الى/ ادارات المدارس في قضاء الزبير

م/ تسهيل مهمة

تحية طيبة ...

تنسب تسهيل مهمة الطالبة الماجستير (علياء حسين علي) المرحله الثانية في جامعة بغداد كلية التمريض للدخول الى مدارسكم وذلك لغرض عمل استبيان الخاص ببحثها (تقييم معارف واتجاهات طالبات المدارس الاعدادية حول الصحة الانجابية في مدينة البصرة).....

لاتخاذ مايلزم مع التقدير

مسلم عبد الكريم ناصر
ع. المدير العام
٢٠١٨/١٢/

وزارة التربية
MINISTRY OF EDUCATION

نسخه منه الى/

جامعة بغداد /كلية التمريض /كتابكم المرقم ٩٦٥٧ في ٢٠١٨/١٢/١٩ ... مع التقدير

التخطيط التربوي / مع الأوليات

Appendix (D)

Appendix (E1)

استمارة الاستبيان

أختي الطالبة

الاستمارة الحالية هي لدراسة طالبة الماجستير **(علياء حسين علي)** والمتعلقة **(بتقييم معارف طالبات المدارس الاعدادية حول الصحة الانجابية)**

أرجو التفضل بملئ الحقول أدناه....مع جزيل الشكر.

المحور الاول:المعلومات الديموغرافية لطالبات المدارس الاعدادية

1.العمر ☐ سنة

2.عدد الأخوة والأخوات ☐

3 .مكان الأقامة :

حضر ☐ ريف ☐

4.تعيش مع من :

كلا والديها ☐ مع الأب فقط ☐ مع الأم فقط ☐

مع الاقارب ☐

5.العمل:

- عمل الاب:

موظف حكومي ☐ موظف قطاع خاص ☐ متقاعد ☐ أعمال حرة ☐

- عمل الام:

موظفة حكومية ☐ موظفة قطاع خاص ☐ متقاعدة ☐ ربة منزل ☐

6.الدخل الشهري للأسرة من وجهه نظر الطالب :

منخفض ☐ متوسط ☐ مرتفع ☐

7.مستوى الطالبة في الدراسة:

ممتاز ☐ جيدجدا ☐ جيد ☐

متوسط ☐ ضعيف ☐

8.مصادرالمعلومات:

تقرأ كتب خارجية ☐ تتصفح أنترنت ☐

أخرى ☐

المحور الثاني:معارف طالبات المدارس الاعدادية حول الصحة الانجابية

أولا--- معارف الطالبة حول علامات النضوج:

ت	الفقرات	أعلم 2	غير متأكد 1	لا أعلم 0
1.	نمو شعر			
2.	كبر حجم الثديين			
3.	توسع الحوض			
4.	حدوث الدورة الشهرية			
5.	زيادة افراز الغدد العرقية وتراكم الدهون في مناطق معينة من الجسم			

ثانيا--- معارف الطالبة حول الدورة الشهرية :

ت	الفقرات	أعلم	غير متأكد	لا أعلم
1.	الحيض هو عملية مرضية			
2.	طول الدورة العادية اكثر من 35 يوم			
3.	أسباب الحيض هي الهرمونات			
4.	مصدر نزيف الحيض هو المهبل			

ثالثا---معارف الطالبة حول عسر الحيض (الالم أثناء الحيض):

ت	الفقرات	أعلم	غير متأكد	لا أعلم
1.	عسر الحيض هو ألم في الحوض أو في أسفل البطن			
2.	يحدث الإسهال أثناء عسر الحيض			
3.	هناك ثلاثة أنواع من عسر الحيض			
4.	نادراً ما تسبب أمراض التهاب الحوض عسر الحيض			
5.	عسر الحيض الأولي يبدأ بفترات الحيض			

رابعا---معارف الطالبة حول الامراض الانتقالية جنسيا:

ت	الفقرات	أعلم	غير متأكد	لا أعلم
1.	الأمراض الانتقالية جنسيا تنتقل عن طريق التعرض لسعال وعطاس الشخص المصاب			
2.	نقل الدم من شخص مصاب الى شخص أخر			
3.	الاتصال الجنسي غير المحمي			
4.	تبادل موس الحلاقة مع شخص مصاب أخر			
5.	أستعمال الأدوات الثاقبة كلأبر والمحاقن			
6.	ينتقل من الام المصابة الى جنينها			
7.	أحد انواع الامراض المنتقلة جنسيا هو الزهري			

خامسا--- معارف الطالبة حول طرق الوقاية من الامراض الانتقالية جنسيا:

ت	الفقرات	أعلم	غير متأكد	لا أعلم
1.	استخدام الواقي الذكري أثناء الاتصال الجنسي يحمي من الامراض المنتقلة جنسيا			
2.	عدم التشارك مع الاخرين في الادوات الجارحة والثاقبة			
3.	الابتعاد عن الاتصال الجنسي خارج الحياة الزوجية السليمة يقلل احتمال الاصابة بلامراض المنتقلة جنسيا			

سادسا--- معارف الطالبة حول العقم :

ت	الفقرات	أعلم	غير متأكد	لا أعلم
1.	الكحول احد عوامل الخطورة للعقم			
2.	انسداد القنوات المنوية عند الرجل يسبب العقم			
3.	التدخين من عوامل الخطورة للعقم			
4.	الأمراض الأنتقالية جنسيا قد تسبب العقم			
5.	نقص الوزن أو زيادة الوزن يؤثر على الخصوبة			
6.	العقم يحدث فقط بعد سن 40 سنة عند النساء			

سابعا--- معارف الطالبة حول تقديم النصائح قبل الزواج:

ت	الفقرات	أعلم	غير متأكد	لا أعلم
1.	فحص الثلاسيميا			
2.	فحص الكبد الوبائي (ب)			
3.	الكشف عن ارتفاع ضغط الدم			
4.	فحص الثلاسيميا وفحص الكبدالوبائي (ب)			
5.	الكشف عن الامراض الوراثية			

ثامنا---معارف الطالبة حول تقديم النصائح قبل الحمل:

ت	الفقرات	أعلم	غير متأكد	لا أعلم
1.	تجنب التدخين والكحول			
2.	البحث عن الرعاية أثناء الحمل والعناية في الاطفال			
3.	تغيير نمط الحياة (الوزن الصحي)			
4.	الأكل اكثر صحيا			
5.	تناول الفولك اسد			

تاسعا---معارف الطالبة حول شروط الحمل:

ت	الفقرات	أعلم	غير متأكد	لا أعلم
1.	الهرمون الضروري لحدوث واستمرار الحمل هوالتستوستيرون			
2.	الحمل الذي يحدث في عمر 35سنة يحدث بدون مضاعفات			
3.	لاتوجد موانع صحية للام المصابة بفقر الدم في حدوث الحمل			
4.	نقص الوزن الشديد عند المرأة الحامل يؤثر سلبا في صحة الام والطفل			

عاشرا---معارف الطالبة حول مقومات الحمل الصحي:

ت	الفقرات	أعلم	غير متأكد	لا أعلم
1.	وجود عيوب خلقية في عائلة الزوجين لا يزيد من احتمال ظهور هذه العيوب بين أطفالهم			
2.	الفحص المنتظم قبل الولادة ضروري أثناء الحمل			
3.	نقص الفولك اسد ليس له علاقة في حدوث التشوهات الخلقية			
4.	تعد الفحوصات المخبرية ضرورية عندما تتطلب الحالة الصحية ذلك وطالما أن المرأة ليست حاملاً ، فلا داعي لإجراء هذه الفحوصات			
5.	الغذاء الجيد, الراحة و التمارين الرياضيه البسيطة ضرورية خلال الحمل			

الحادي عشر ---معارف الطالبة حول دور الرعاية الصحية الأولية في رعاية الحوامل:

ت	الفقرات	أعلم	غير متأكد	لا أعلم
1.	أرتفاع ضغط الدم مع الحمل يزيد من مخاطر الحمل			
2.	قد يكون لمرض السكري تأثير صحي على المرأة الحامل وطفلها			
3.	لاتوجد علاقة سببية بين التغذية بشكل عام و صحة الام و/ أوالجنين			
4.	يجب أن تبدأ الرضاعة الطبيعية بعد وقت قصير من ولادة الطفل			

الثاني عشر---معارف الطالبة حول لقاح الكزاز:

ت	الفقرات	أعلم	غير متأكد	لا أعلم
.1	الأشخاص الذين لم يتم تحصينهم بالكامل ولهم جروح يجب أن يتلقوا التطعيم ضد التيتانوس			
.2	يتم الحصول على الكزاز من خلال الاتصال مع البيئة. لا ينتقل من شخص لآخر			
.3	تم العثور على العامل المسؤول عن الكزاز في جميع أنحاء البيئة ، وعادة في التربة والغبار والنفايات الحيوانية			
.4	الكزاز مرض معد يسببه تلوث الجروح			

الثالث عشر---معارف الطالبة حول الرضاعة الطبيعية :

ت	الفقرات	أعلم	غير متأكد	لا أعلم
.1	يجب أن تستمر الرضاعة الطبيعية خلال مرض السل والإيدز والتهاب الكبد (ب)			
.2	الارضاع من الثدي احدى وسائل تنظيم الأسرة(مانع الحمل)			
.3	الرضاعة الطبيعية تحمي الطفل من الأمراض المعدية والحساسية			
.4	الرضاعة الأصطناعية لها فوائد مشابهة للرضاعة الطبيعية			
.5	مدة مواصلة الرضاعة الطبيعية هي 1 سنة			

Appendix (E2)

Questionnaire

Part One / Participants' Sociodemographic characteristics:

1-Age ☐ years

2-Siblings: ☐

3-Residency:

Rural ☐ Urban ☐

4-The students live with:

Both parents ☐ with father ☐ with mother

5-Occupation ☐

- **Father Occupation :**

Governmental employee ☐ private sector employee ☐

retried ☐ free employment ☐

- **Mother Occupation :**

Governmental employee ☐ private sector employee ☐

retried ☐ house wife ☐

6-Socio Economic Status:

Low ☐ Moderate ☐ High

7-Educational Attainment:

Excellent ☐ very good ☐ good ☐ moderate ☐

low ☐

8-Source of Information:

Reading external books ☐ browsing internet ☐ others

☐

Part Two/ knowledge of students about reproductive health:-

A—Students' knowledge about signs of puberty:

		2	*1*	*0*
Seq.	***Paragraphs***	***know***	***Not sure***	***Don't know***
1.	Hair growth			
2.	Breasts enlarge in puberty			
3.	Hips enlargement in puberty			
4.	Start of menstrual cycle			
5.	Increase secretion of sweat glands and fat accumulation in certain areas of the body			

B- Students' knowledge about Menstruation is:

		2	*1*	*0*
Seq.	***Paragraphs***	***know***	***Not sure***	***Don't know***
1.	Menstruation is a pathological process			
2.	Normal cycle length > 35 days			
3.	Causes of menstruation are hormones			
4.	Source of menstrual bleeding is vagina			

C-Students' knowledge about dysmenorrhea (pain during menstrual cycle):

Seq.	***Paragraphs***	***know***	***Not sure***	***Don't know***
1.	Dysmenorrhea is a pain in the pelvic or in the lower abdomen.			
2.	Diarrhea occur during dysmenorrhea			
3.	There is three types of dysmenorrhea			
4.	Pelvic inflammatory diseases rarely cause dysmenorrhea			
5.	Primary dysmenorrhea start with menstrual periods			

D- Students' knowledge about Sexually transmitted diseases:

Seq.	*Paragraphs*	*know*	*Not sure*	*Don't know*
1.	Sexually transmitted diseases can be transmitted by Exposure to cough and sneeze from infected persons			
2.	Transfusion of blood from one person to another			
3.	Unprotected sexual intercourse			
4.	Sharing the same plate with infected person may have effect			
5.	From needles and syringes			
6.	Transfer from infected mother to her fetus			
7.	One types of STD is syphilis			

E-Students' knowledge about preventive methods from sexual transmitted diseases:

Seq.	*Paragraphs*	*know*	*Not sure*	*Don't know*
1.	Use of condom during sexual intercourse protect against sexual transmitted diseases			
2.	Don't share with others sharp or engraving tools			
3.	Having a single faithful partner			

F-Students' knowledge about infertility:

Seq.	*Paragraphs*	*know*	*Not sure*	*Don't know*
1.	Alcohol can predispose to infertility			
2.	Blockage of sperm in male reproductive tract lead to infertility			
3.	Smoking can predispose to infertility			

4.	Sexually transmitted infection can cause infertility			
5.	Being underweight or overweight effect on fertility			
6.	Infertility can only occur after 40 years of age in female			

G- Students' knowledge about premarital counselling:

Seq.	***Paragraphs***	***know***	***Not sure***	***Don't know***
1.	Thalassemia test			
2.	Screening for Hepatitis type B			
3.	Detection for hypertension			
4.	Screening for thalassemia and hepatitis type B			
5.	Detection for any genetic diseases			

H- Students' knowledge about preconception counselling:

Seq.	***Paragraphs***	***know***	***Not sure***	***Don't know***
1.	Avoiding tobacco and other drugs.			
2.	Seeking further information about pregnancy and care of the children.			
3.	Life styles change (healthy weight).			
4.	Eating more healthily			
5.	Took folic acid			

I-Students' knowledge about Conditions of pregnancy:

Seq.	*Paragraphs*	*know*	*Not sure*	*Don't know*
1.	Hormone necessary for the occurrence and continuation of pregnancy is testosterone			
2.	The pregnancy with age more than 35 years occur without complication			
3.	There are no health contraindications for anemic woman to become pregnant			
4.	Extreme underweight in a pregnant woman may adversely affect her and her baby			

J- Students' knowledge about healthy pregnancy:

Seq.	*Paragraphs*	*know*	*Not sure*	*Don't know*
1.	Presence of birth defects in the couple's family does not increase the possibility of appearance of these defects among their children.			
2.	Regular antenatal check up is essential during pregnancy.			
3.	Folic acid deficiency has no relation with congenital anomalies.			
4.	Laboratory investigations are necessary when the health condition necessitates this and as long as the woman is not pregnant so there is no need to carry out these investigations			
5.	Proper diet, rest & mild exercise is essential during pregnancy.			

K- Students' knowledge about the role of primary health care center in pregnant health:

Seq.	*Paragraphs*	*know*	*Not sure*	*Don't know*
1.	Hypertension with pregnancy may increase risks on pregnancy			
2.	Diabetes Mellitus may have health impact on the pregnant woman and her baby			
3.	There is no causal relationship between nutrition in general and the health of the mother and/or her fetus			
4.	Breast feeding should start soon after birth of the baby			

L- Students' knowledge about Tetanus vaccine:

Seq.	*Paragraphs*	*know*	*Not sure*	*Don't know*
1.	People who are not completely immunized and have wounds should receive a tetanus immunization			
2.	Tetanus is acquired through contact with the environment; it is not transmitted from person to person			
3.	The agent responsible for tetanus is found throughout the environment, usually in soil, dust, and animal waste			
4.	Tetanus is an infectious disease caused by contamination of the wounds			

M- Students' knowledge about Important of breast feeding for mother and baby:

Seq.	*Paragraphs*	*know*	*Not sure*	*Don't know*
1.	Should breastfeeding be continued during TB, AIDS and Hepatitis B.			
2.	Breastfeeding reduces chances of subsequent pregnancy.			
3.	Breastfeeding protects a child from infectious diseases and allergies			
4.	Bottle feeding is have the same healthy benefit as the same with breast feeding.			
5.	Duration to continue breastfeeding is 1 year.			

Appendix (F)

قائمة الخبراء

ت	الاسم الثلاثي	اللقب العلمي	سنوات الخبرة	مكان العمل
1	ربيعة محسن علي	استاذ	44 عام	فرع تمريض الام والوليد-كلية التمريض- جامعة بغداد
2	سهاد حكمت خيري	مدرس	40 عام	فرع تمريض صحة الام والوليد- كلية التمريض- جامعة بغداد
3	شكرية شرهان	استاذ	30 عام	جامعة الفرات الاوسط - كلية التقنيات الطبية والصحية - الكوفه
4	سندس باقر داود	مدرس	27 عام	جامعة البصرة- كلية التمريض
5	رسمية عريبي لفتة	طبيب اختصاص	27 سنة	مستشفى البصرة للنسائية والاطفال
6	سميرة محمد	طبيب اختصاص	25 عام	طب مجتمع – كلية التمريض- جامعة البصرة
7	وسام جبار قاسم	استاذ مساعد	24 عام	فرع تمريض صحة المجتمع-كلية التمريض- جامعة بغداد
8	هاله سعدي عبد الواحد	استاذ مساعد	24 عام	فرع تمريض صحة المجتمع-كلية التمريض- جامعة بغداد
9	رسل صباح غزال	مدرس	20 عام	تمريض الام والوليد-المعهد الطبي التقني-بغداد
10	محمد باقر حبيب	مدرس	12 عام	فرع تمريض صحة المجتمع-كلية التمريض- جامعة بغداد
11	حوراء حسين غافل	مدرس	12 عام	فرع تمريض الام والوليد-كلية التمريض- جامعة بغداد
12	سجاد سالم عيسى	طبيب اختصاص	10 عام	طب اسرة -كلية التمريض- جامعة البصرة

الخلاصة

المقدمة: الصحة الإنجابية هي جزء أساسي من الصحة العامة وهي ركيزة أساسية للتنمية البشرية. إنه انعكاس للصحة أثناء الطفولة وأثناء فترة المراهقة والبلوغ ، ومواضع ومراحل للصحة بعد سنوات الإنجاب ، ويؤثر على صحة الجيل القادم.

الأهداف: تهدف الدراسة الحالية الى تقييم معارف طالبات المدارس الثانوية حول الصحة الإنجابية و تحديد بعض المتغيرات الديموغرافية مثل العمر والحالة الاجتماعية والاقتصادية للإقامة والتسلسل بين الأخوة والأخوات. وما إلى ذلك ، ومعرفة العلاقة بين معارفهم حول الصحة الانجابية مع هذه المتغيرات.

المنهجية: أجريت دراسة تحليلية وصفية لتقييم مستوى معارف الطالبات حول الصحة الإنجابية لدى 287 طالبة في المدرسة في سن (14-23) سنة تتكون من ستة مدارس ثانوية في مدينة البصرة ، تم جمع البيانات عن طريق المقابلة المباشرة باستخدام الاستبيان المبني للحصول على الخصائص الاجتماعية والديموغرافية ومستوى المعارف المتعلقة بالصحة الإنجابية. بدأت الدراسة من 8 نوفمبر 2018 إلى 4 ابريل 2019.وتم تحديد صدق الاستبيان من خلال لجنة من (12) خبيرا وموثوقية الاستبيان من خلال الدراسة التجريبية. تم استخدام التحليل الإحصائي الوصفي والاستنتاجي لتحليل البيانات.

النتائج: أظهرت النتائج أن أعلى نسبة من الطالبات (82.75٪) كانت في سن (14-18) سنة ، (60.2 ٪) من الطالبات كان تسلسلهم بين الأخوة والأخوات بين (5-8)، (93 ٪) من الطالبات كانوا يعيشون في المناطق الحضرية ، (93.0 ٪) منهم كانوا يعيشون مع والديهم ، (34.8 ٪) من آباء الطالبات كانوا موظفيين حكوميين ، و (57.5 ٪) من أمهات الطالبات ربة منزل ، غالبية عوائل الطالبات لديهم دخل منخفض (63.7 ٪) ، (34.5 ٪) من الطالبات في مستوى جيد من التحصيل الدراسي ، كان التصفح على الانترنت المصدر الأول للمعلومات (62.4 ٪) من المستطلعين. توضح هذه الدراسة أن معارف الطالبات تجاه جميع مجالات الصحة الإنجابية كانت منخفضة المستوى بنسبة (0.69) , كان هناك ارتباط كبير بين معرفة الطالبات وتسلسلهن بين الأخوة والأخوات, والقراءة الخارجية من الإنترنت , والأقامة, وعمل الأب , ودخل الأسرة , ولم تكن هناك علاقة بين معرفة الطالبات واعمارهن , وتحصيلهن الدراسي , ومعيشة الطالبات .

الاستنتاجات: استنتجت الدراسة الحالية أن معارف الطالبات حول الصحة الإنجابية كانت منخفضة المستوى بنسبه كانت (0.69).

التوصيات: أوصت هذه الدراسة بضرورة وضع برامج تعليمية لتحسين معارف الطالبات حول الصحة الإنجابية من خلال المحاضرات المباشرة ، ومن خلال وسائل الإعلام ومقدمي الرعاية الصحية المدرسية ، والحصول على مناهج خاصة في البرامج التعليمية لتحسين معارفهم حول الصحة الإنجابية .

جامعـــــة بغـــداد

كليـــــة التمريـــــض

تقييم معارف طالبات المدراس الاعدادية حول الصحة الانجابية في مدينة البصرة

رسـالة تقدمت بها

علياء حسين علي

لفـــرع

تمريض صحة الام والوليد ــ كلية التمريض ــ جامعة بغداد

جزء من متطلبات نيل شهادة الماجستير في علوم التمريض في أختصاص تمريض الأم والوليد

إشـــــراف

أ.م.د. عز الدين فخر الدين بهاء الدين

نيسان / 2019 شعبان / 1440