

**Awareness and knowledge on reproductive health
among slum living young women in Dhaka City,
Bangladesh.**

A research paper is submitted to the Department of Pharmacy, East
West University in conformity with the requirements for the degree of
Bachelor of Pharmacy

Submitted by

Salwa Chowdhury

ID: 2013-3-70-019

Under the Guidance of

Sufia Islam, Ph. D

Professor



Department of Pharmacy

East West University

Declaration by the Research Candidate

I, Salwa Chowdhury, hereby declare that the dissertation entitled “Awareness and knowledge on reproductive health among slum living young women in Dhaka City, Bangladesh.” submitted by me to the Department of Pharmacy, East West University and in the partial fulfillment of the requirement for the award of the degree Bachelor of Pharmacy, work carried out by me during the period 2017 of my research in the Department of Pharmacy, East West University, under the supervision and guidance of Dr. Sufia Islam, Professor, Department of Pharmacy, East West University. The thesis paper has not formed the basis for the award of any other degree/diploma/fellowship or other similar title to any candidate of any university.

Salwa Chowdhury

ID: 2013-3-70-019

Department of Pharmacy

East West University

Dhaka, Bangladesh.

Certificate by the Supervisor

This is to certify that the thesis entitled “Awareness and knowledge on reproductive health among slum living young women in Dhaka City, Bangladesh.” submitted to the Department of Pharmacy, East West University for the partial fulfillment of the requirement for the award of the degree Bachelor of Pharmacy, was carried out by Salwa Chowdhury, ID: 2013-3-70-019, during the period 2017 of her research in the Department of Pharmacy, East West University, under the supervision and guidance of me. The thesis has not formed the basis for the award of any other degree/diploma/fellowship or other similar title to any candidate of any university.

Sufia Islam, Ph. D

Professor

Department of Pharmacy

East West University

Dhaka, Bangladesh.

Certificate by the Chairperson

This is to certify that the thesis entitled “Awareness and knowledge on reproductive health among slum living young women in Dhaka City, Bangladesh.” submitted to the Department of Pharmacy, East West University for the partial fulfillment of the requirement for the award of the degree Bachelor of Pharmacy, was carried out by Salwa Chowdhury, ID: 2013-3-70-019, during the period 2017 of her research in the Department of Pharmacy, East West University.

Dr. Chowdhury Faiz Hossain

Professor & Chairperson

Department of Pharmacy

East West University

Dhaka, Bangladesh.

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Abstract

Reproductive health refers to the disease, disorder and condition that affect the functioning of the male and female reproductive system during all stages of life. Menstruation and pre-menstrual symptoms, pregnancy and contraception, sexual transmitted diseases (STDs) and its prevention are also included in reproductive health. Disorders of reproduction include birth defect, developmental disorder, low birth weight, preterm birth, reduced fertility, impotence, and menstrual disorders. Awareness and practice towards reproductive health is very important to reduce the adverse consequences of reproductive health of the people, including the sexually transmitted disease. Therefore, this study was designed to assess the awareness and knowledge about menstruation, pregnancy and sexually transmitted diseases among slum living young women in Dhaka City, Bangladesh. About 120 female respondents were included in this study. The study duration was eight months and the areas included in this study were Meradia, Aftabnagar and Nayapara, Dhaka city. In this study, it is shown that the age at the menarche was 10 to 11 years in 63% female. About 21% faced menarche at 12 to 13 years of age. The duration of their own menstrual cycle was counted by 68% female respondents. Around 79% female respondents could anticipate and predict the onset of menstruation as they had pre-menstrual symptoms like abdominal pain or cramp, joint and muscle pain or headache etc. More than 50% participants knew that contraceptive pill causes infertility in women. Approximately 63% respondents knew that HIV is a sexually transmitted infection and 47% people heard about Gonorrhoea as sexually transmitted infections. However, 21% respondents had no idea about sexually transmitted infections. In this study, 89% respondents had knowledge that the Sexually Transmitted Infections (STIs) can be prevented by using condom. It is also shown that 37% women knew that avoiding casual sex can prevent STIs. Further study is needed with a large sample size to determine the awareness, knowledge and attitude with reproductive health among slum living young women in Bangladesh.

Key words: Reproductive health, menstruation, contraception, pregnancy, sexually transmitted diseases, HIV.

CHAPTER 01

INTRODUCTION

1.1 Reproductive health

According to national institute of environmental sciences, Reproductive health refers to the diseases, disorders and conditions that affect the functioning of the male and female reproductive systems during all stages of life. Disorders of reproduction include birth defects, developmental disorders, low birth weight, preterm birth, reduced fertility, impotence, and menstrual disorders. [National Institute of Environmental Health Sciences, 2017]

WHO (2015) refers the reproductive health system as a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity, reproductive health addresses the reproductive processes, functions and system at all stages of life. The reproductive health implies the right of women and men to access to safe, effective,affordable and acceptable methods of fertility regulation of their choice and the right of access to appropriate health care services that will enable women to go safely through pregnancy and childbirth and provide couples with the best chance of having a healthy infant.[World Health Organization, 2017]

Menstruation and pre-menstrual symptoms and disorders and post-menstrual disorders, menopause, pregnancy and contraception, preconception health and infertility all are included in reproductive health.[Center for Disease Control and Prevention, 2017]

1.2 Importance of reproductive health awareness

Awareness and attitude towards reproductive health is important to reduce the adverse consequences of sexual behavior and to improve the quality of sexual relationships for young people, both as young people today and also in their future life as adults. Young people are particularly vulnerable to the adverse consequences of early sexual behavior. This increased vulnerability is caused by a number of biological, behavioral, and psychological factors including hormonal changes at puberty, cervical anatomy, immunological naivety, inability to recognize symptoms of infection, sexual experimentation including experimentation with same sex partners, non-consensual sex, imperceptions of risk, immaturity of communication skills, contraception choice, poor health seeking behavior and alcohol or illicit substance use. The consequences of sexually

transmitted infection (STI) and unplanned pregnancy can be devastating. On a survey it is shown that young people between the ages of 10 and 24 make up one third of the world's population. Eighty per cent of these young people live in developing countries where the burden of infection with both STIs and HIV is greatest. Half of all people infected with HIV globally are infected before age 25. [Cowan, 2002]

Nowadays HIV positive patient increases due to lack of reproductive health knowledge in Bangladesh. According to UNAIDS, number of people living with HIV is 9600 (8400 - 11 000) at 2015.

According to official statistics of health and family welfare ministry, the minister said, 4,143 HIV infected persons were detected up to November 2015, of them, 658 are dead and 3485 alive. [The Daily star, September, 2016]

1.3 Female reproductive system

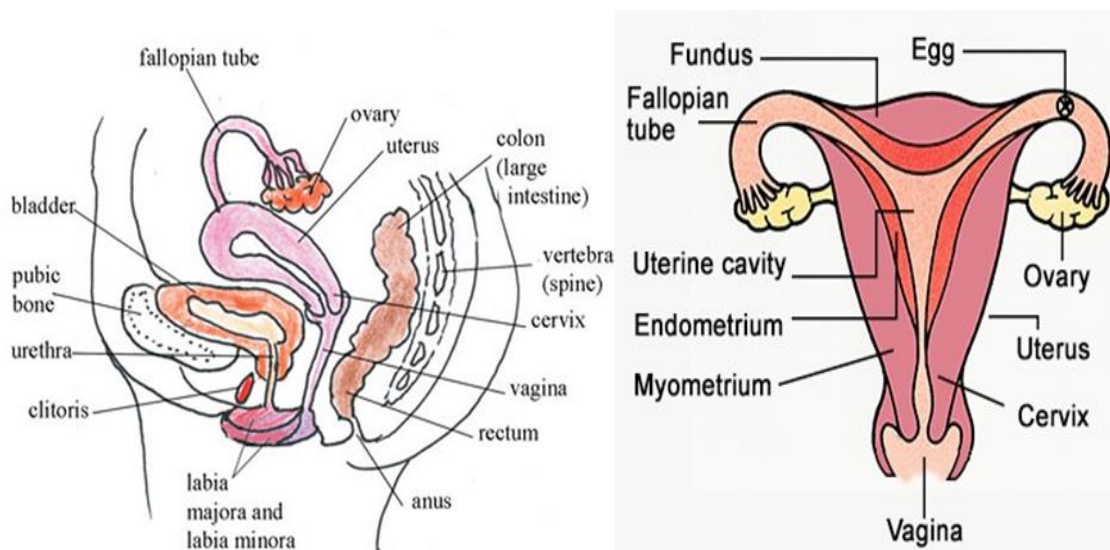


Figure 1: Female Reproductive System

1.3.1 Ovaries

The ovaries are paired female reproductive organs that produce the eggs (ova). They lie in the pelvic cavity on either side of the uterus, just below the opening of the fallopian tubes.

1.3.2 Fallopian tubes

Fallopian tubes are the narrow tubes that are attached to the upper part of the uterus. They serve as tunnels for the ova to travel from the ovaries to the uterus. The fertilization of an egg by a sperm (conception) normally occurs in the uterine tubes. The fertilized egg then moves to the uterus, where it implants into the lining of the uterine wall.

1.3.3 Uterus

The uterus is a hollow, muscular organ in which a fertilized ovum becomes embedded and develops into a fetus. Its major function is protecting and nourishing the fetus until birth.

During pregnancy, the muscular walls of the uterus become thicker and stretch in response to increasing fetal size during the pregnancy. The uterus must also accommodate increasing amounts of amniotic fluid (the waters surrounding the fetus, contained in a bag of fetal membranes) and the placenta (the structure that delivers nutrients from the mother to the fetus).

1.3.4 Labia majora

The labia majora are two elongated, hair-covered, fatty skin folds that enclose and protect the other organs of the external female genitalia.

1.3.5 Labia minora

The labia minora are two smaller tissue folds enclosed by the labia majora. They protect the opening of the vagina and the urethra. The labia minora normally have an elastic nature, which enables them to distend and contract during sexual activity and labour and delivery.

1.3.6 Clitoris

The clitoris is a short erectile organ at the top of the vestibule, which has a very rich nerve supply and blood vessels.

1.3.7 Vagina

The vagina is a muscular passage, 8 to 10 cm in length, between the cervix and the external genitalia. The secretions that lubricate the vagina come from glands in the cervix.

1.3.8 Cervix

The cervix is the lower, narrow neck of the uterus, forming a tubular canal, which leads into the top of the vagina. It is usually about 3 to 4 cm long.

1.3.9 The myometrium

The thick, muscular, middle layer of the uterus is the myometrium.

1.3.10 The endometrium

The endometrium is the thin, innermost layer of the uterus, which thickens during the menstrual cycle. This is the tissue that builds up each month in a woman of reproductive age, under the influence of the female reproductive hormones.

[Antenatal Care Module, the Open University, 2017]

1.4 Sectors of female reproductive health

All reproductive organs play an important role in the reproductive processes. The followings are included in the reproductive health-

- a. Menstrual cycle—a woman's monthly cycle, which includes getting period
- b. Conception—when a woman's egg is fertilized by a man's sperm
- c. Pregnancy
- d. Childbirth

1.5 Menstruation:

Menstruation is a woman's monthly bleeding. Menstrual blood flows from the uterus through the small opening in the cervix and passes out of the body through the vagina. Most menstrual periods last from 3 to 5 days.

1.6 Menstrual cycle

When menstruations come regularly, this is called the menstrual cycle. Having regular menstrual cycles is a sign that important parts of women's body are working normally. The menstrual cycle provides important body chemicals, called hormones, to keep healthy. It also prepares body for pregnancy each month. A cycle is counted from the first day of 1 period to the first day of the next period. The average menstrual cycle is 28 days long. The average period lasts for 3 to 5 days. There can be huge variations in menstrual cycle from woman to woman. Cycles can range anywhere from 21 to 35 days in adults and from 21 to 45 days in teenagers. [womenshealth.gov, 2017]

1.6.1. Menarche

The American Congress of Obstetricians and Gynecologists recommends that the median age at menarche is between 12 years and 13 years. Studies have shown that a higher gain in body mass index during childhood is related to an earlier onset of puberty that may result from attainment of a minimal requisite body mass index at a younger age. Environmental factors, including socioeconomic conditions, nutrition, and access to preventive health care, may influence the timing and progression of puberty. [The American Congress of Obstetricians and Gynecologists, 2015]

1.6.2. Premenstrual syndrome

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). PMS is a term commonly used to describe a wide variety of physical and psychological symptoms associated with the menstrual cycle. About 30 to 40 percent of women experience symptoms severe enough to disrupt their lifestyles. There are more than 150 documented symptoms of PMS, the most common of

which is depression. Symptoms typically develop about five to seven days before the period and disappear once period begins or soon after.

Physical symptoms associated with PMS include:

- Bloating
- Fatigue
- Headache
- Muscle pain
- Joint pain
- Constipation

Emotional symptoms associated with PMS include:

- Anger
- Anxiety
- Mood swing
- Unable to concentrate [Healthywomen.org, 2017]

1.6.3. Late or Missed Period

Sometimes a period may come late or be missed for the month. Frequently, a woman's first thought is that she is pregnant. Yes, that could be the case, but there are times when a woman may be late or miss her period for other unsuspected reasons.

Reasons of late period-

- Significant weight gain/loss
- Fatigue
- Hormonal problems
- Stress
- Ceasing to take the birth control pill
- Breastfeeding
- Increase in exercise
- Illness
- Infections
- STD's [American Pregnancy Association, 2015]

1.6.4. Menopause

Menopause is a normal change in a woman's life when her period stops. A woman has reached menopause when she has not had a period for 12 months in a row. This often happens between 45–55 years of age. Menopause happens because the woman's ovary stops producing the hormones estrogen and progesterone.

[Center for Disease Control and Prevention, 2015]

1.6.5. Amenorrhea

The opposite problem of heavy menstrual bleeding is no menstrual periods at all. This condition is called Amenorrhea or the absence of menstruation occurs when a young woman hasn't started menstruating by age 16, or when a woman who used to have a regular period stops menstruating for at least 3 months. It is normal before puberty, after menopause and during pregnancy.

There are two types of Amenorrhea-

1. Primary Amenorrhea
2. Secondary Amenorrhea

1.6.6. Dysmenorrhea

Dysmenorrhea is severe pain during a woman's period. The natural production of a hormone called prostaglandin can cause intense cramping. It is a problem found mainly in girls and young women. In women in their 20s, 30s, and 40s, a condition such as uterine fibroids or endometriosis may cause painful periods.

1.7 Female infertility

Many reasons are responsible for female infertility and can occur at any point during a woman's childbearing life. Infertility is generally defined as failure to conceive after one year of trying with regular unprotected sex if a woman is less than 35 years old or failure to conceive within six months if a woman is equal to or greater than 35 years old.

[Womenshealth.va.gov. 2017]

1.8 Preconception health

Preconception health can be defined as the health of women and men during their reproductive life in which they can birth a child(Center for Disease Control and Prevention, 2017). It alerts on taking steps how to protect the health of a baby before and after birth. Some habits, foods, medicines can be changed for preconception health.

[Womenshealth.gov, 2017]

1.9 Pregnancy

According to WHO Pregnancy is the nine months or so for which a woman carries a developing embryo and fetus in her womb that is for most women a time of great happiness and fulfillment. Pregnancy is measured from the date of the woman's last menstrual period. It is usually divided into three trimesters.

The most important tasks of basic fetal cell differentiation occur during the first trimester. So any harm done to the fetus during this period is most likely to result in miscarriage or serious disability. There is little to no chance that a first-trimester fetus can survive outside the womb, even with the best hospital care. Its systems are simply too undeveloped. It is in the first trimester that some women experience morning sickness, a form of nausea on awaking that usually passes within an hour. The breasts also begin to prepare for nursing, and painful soreness from hardening milk glands may result.

In second trimester, at 16 weeks and sometimes as early as 12 weeks, a woman can typically find out the sex of her infant. Muscle tissue, bone, and skin have formed. At 20 weeks, a woman may begin to feel movement. At 24 weeks, footprints and fingerprints have formed and the fetus sleeps and wakes regularly.

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Infants born at 39 or 40 weeks of pregnancy are considered full term. Full-term infants have better health outcomes than do infants born earlier or, in some cases, later than this period.

1.10 Contraception

Contraception or birth control is how prevent pregnancy before it begins. There are lots of different methods that work really well and are easy to use.

Most types of contraceptives work by-

- a) preventing an egg from being released every month (hormones)
- b) preventing sperms from reaching the egg (barrier and some IUD methods)
- c) blocking the reproductive function in men or women (sterilization)
- d) preventing a fertilized egg from implanting in the uterus (hormones)

[Health Bridge Limited]

The Pill

The contraceptive pill will prevent from getting pregnant in 95% of cases and it comes close to providing 99% protection if women take one pill every day as doctor prescribed. The pill can come in two forms- the combined contraceptive pill (containing the hormones estrogen and progesterin) or the mini-pill (containing progesterin). In the case of the mini-pill, it is important that women take pill every day at the same time

Male condom

Among the different types of contraceptives the male condom is a strong contender to the title of most common contraception method. It is easy to use, affordable and offers the best protection against Sexual transmitted infections (STIs) such as gonorrhoea, chlamydia, HIV. Condoms are usually made of latex.

The Diaphragm

Continuing with the list of barrier contraception methods, there is the diaphragm which is placed inside the vagina so that it prevents the sperm from getting into the uterus. Despite being a barrier method, it doesn't protect against STIs.

The contraceptive implant

The contraceptive implant contains progestin, the same hormone as the contraceptive pill. The hormone is released into female body at a very slowly, slow pace for three years, producing the same effects as the pill.

Contraceptive Injections

Contraception injections are artificial progesterone (progestin). One shot of hormones lasts in the body for 8 to 12 weeks (3 months) and has the same effect as the pill. Injections are about 99% effective with pregnancy occurring mostly with women who forgot to renew their contraceptive shot in time.

The Contraceptive Patch

The contraceptive patch is exactly the same thing as the contraceptive pill but it is in the form of a patch. It provides the same effective protection against pregnancy and has the side effects. It does not protect from STIs.

1.11 Sexually transmitted Disease

Sexually transmitted infections (STIs) or Sexually transmitted diseases (STDs) are major concern in reproductive health study. These are very common and easily get spreaded. They can damage reproductive organs and make it hard to get pregnant or cause problems during pregnancy. These infections get spreaded primarily through person-to-person sexual contact. There are more than 30 different sexually transmissible bacteria, viruses and parasites. The most common diseases they cause are gonorrhea, chlamydial infection, syphilis, trichomoniasis, chancroid, genital herpes, genital warts, human immunodeficiency virus (HIV) infection and hepatitis B infection. Several, in particular HIV and syphilis, can also be transmitted from mother to child during pregnancy and childbirth, and through blood products and tissue transfer (World Health Organization, 2015). STD can be prevented by abstinence, vaccination, reducing number of sex partners, mutual monogamy, using condoms [Center for Disease Control and Prevention, 2016].

LITERATURE REVIEW

A recent study conducted by Dudeja et al has shown that the average age at menarche was 11.97 years. It was seen that the knowledge about menarche was acquired by only half of population (56.4%). It was also shown that only half (50.7%) of the respondents knew the source of menstrual blood and about 90% young women face physical complication during the menstruation period. Most of them follow physical (41.2%) and social restrictions (22.3%). [Dudeja P *et al*, 2016]

A study in Japan at 2013 has shown that about 74% women suffer from menstrual symptoms. Fifty percent women reported pain and 19% women was sufferer in heavy bleeding which increase severity of symptoms. As a result women's daily life interferes with productivity. Due to productivity loss they face economic loss. [Tanaka E *et al*, 2013]

About 287,000 maternal deaths occurred in 2013 due to lack of available maternal health care services during pregnancy and its complications. It has been shown from a study that due to help of birth preparedness and complication readiness (BPCR), it has been shown in 2015 that about 37% pregnant women were prepared for birth and its complexity. [Zepre and Kaba, 2017]

A research on contraceptive knowledge, beliefs and attitudes by Linda, Effie and Wanangwa has shown that traditional family planning still exists and population did not was modern contraceptive. Because the respondents believed that modern contraceptives cause prolong menstruation, men's impotence, genital sores, weight loss and infertility. The study also showed that family planning is not only for pregnancy but also for prevention of cancer, sexually transmitted infections and infection with HIV. The commonly used contraceptives by respondents were injectable because it was easy to hide from their partners so that respondents did not want to be pregnant. They were not intended to take contraceptive pills. Because they heard that contraceptive pill damages organs and weight gain and increase palpitation. [Effie *et al*, 2010]

Preconception is an opportunity for women and men to improve their health before they start trying for a baby. A very recent (2017) study on preconception has shown that due to lack of awareness of preconception health, childbearing women faced a lot of difficulty like prematurity, miscarriage, infertility and fetal growth restrictions. [Bortolus *et al*, 2017].

It has been shown from a study that 67% of the students were unable to mention the time at which a girl can be able to conceive. If a girl gets married before 18 years of age, it is safe for her – it was reported by 80% of the students. Most of the students do not know the birth preparations, important risk factors, danger signs, post-partum care and transmission of HIV/AIDS and its prevention. Almost 28% of boys and 14.2% of girls could not mention any signs and symptoms of puberty. It is also shown that female students felt shy more than male students to discuss reproductive health. [Declare L *et al*, 2007]

A study based on awareness about sexually transmitted infection (STIs) in India has shown that 70% respondents were unable to mention anyone symptom of an STIs. Among the respondents 73.4% said that monogamous relationships could prevent STIs and 39.2% mentioned that use of condom can give protection against STIs. Participants who faced several STIs had urethral discharge (8.7%), itching (5.6%), genital ulcer (2.5%) and groin swelling (1%). [Garg S *et al*, 2007]

Another study based on knowledge of HIV/AIDS in Pakistan has shown that about 44% interviewer mentioned one sexually transmitted infections (STIs) correctly. About 55% of boys and girls mentioned at least two way of transmission of HIV/AIDS. [Raheel H *et al*, 2007]

CHAPTER 02

RESEARCH OBJECTIVE

Research Objectives

The objective of this study is-

- To assess the awareness and knowledge about menstruation, pregnancy and sexually transmitted diseases in a slum area of Dhaka city, Bangladesh.

CHAPTER 3
METHODOLOGY

3.1 Type of the Study

It was a survey based study.

3.2 Study Area

The survey was conducted in five different slums in different areas inside Dhaka City and some survey on the university's fourth class employee. The slums were-

- Meradia (3 slums)
- Aftabnagar
- Nayapara

3.3 Study population

In this study, a total number of 120 female slum dwellers from several areas were surveyed with a questionnaire in order to assess the awareness and attitude towards the reproductive health. Informed consent was obtained from the eligible participants before interviewed and participants who agreed to join the study provided the required information for the studies.

3.4 Study Period

The duration of the study was about three months starting from September in 2016 to April in 2017.

3.5 Questionnaire Development

The pre-tested questionnaire was specially designed to collect the simple background data and the needed information. The questionnaire was written in simple English in order to avoid unnecessary semantic misunderstanding. The questionnaire was pilot tested to ensure it was understandable by the participants. Extra space was however, allowed after some questions for the participants' comments; and in most cases, these were used as qualifying

remarks which aided considerably in giving answers to specific questions and in providing additional information which assisted the interviewers in drawing up conclusions.

3.6 Sampling testing

In this study purposive sampling technique was followed.

3.7 Data Analysis

After collecting, the data were checked and analyzed with the help of Microsoft Excel 2010. The result was shown in bar, pie and column chart and calculated the percentage of the awareness and attitude towards the reproductive health among female students.

CHAPTER 4
RESULTS

4.1 Age distribution of female respondent

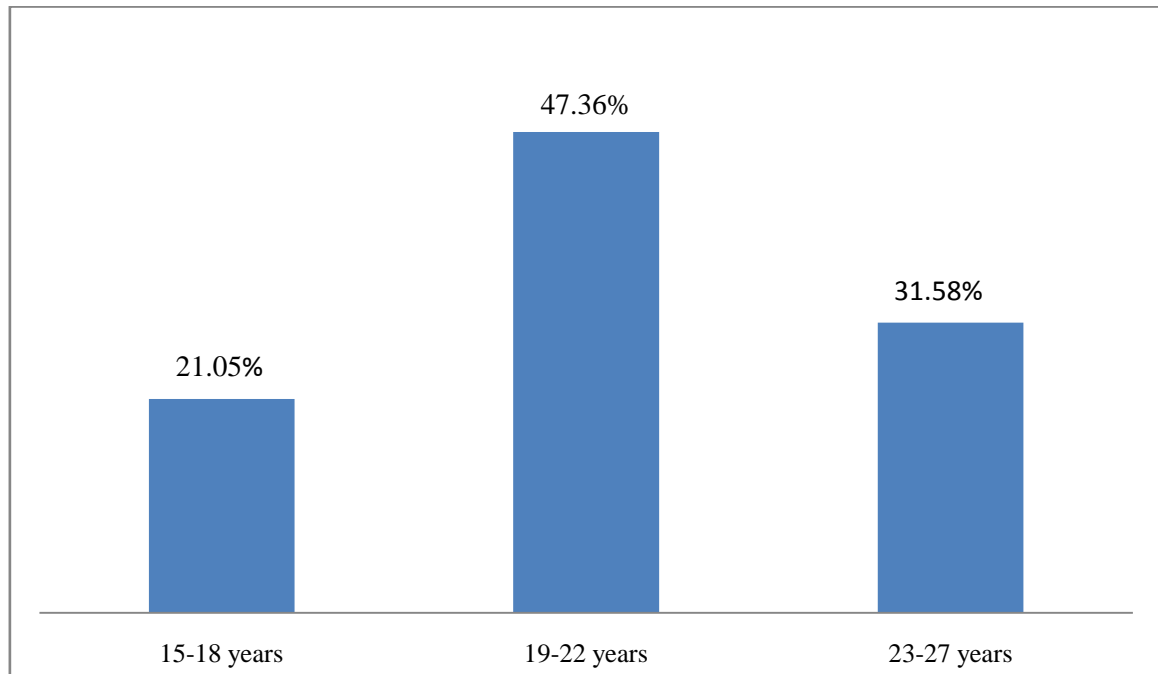


Figure 2: Age distribution of female respondent

Majority (47.36%) of the female among 120 respondents were in the age group of (19-22) years. Almost about 21 % respondents from the age group of (15-18) and 31.58% respondents from (22-23) years participated in the study.

4.2 Educational status of Female respondent

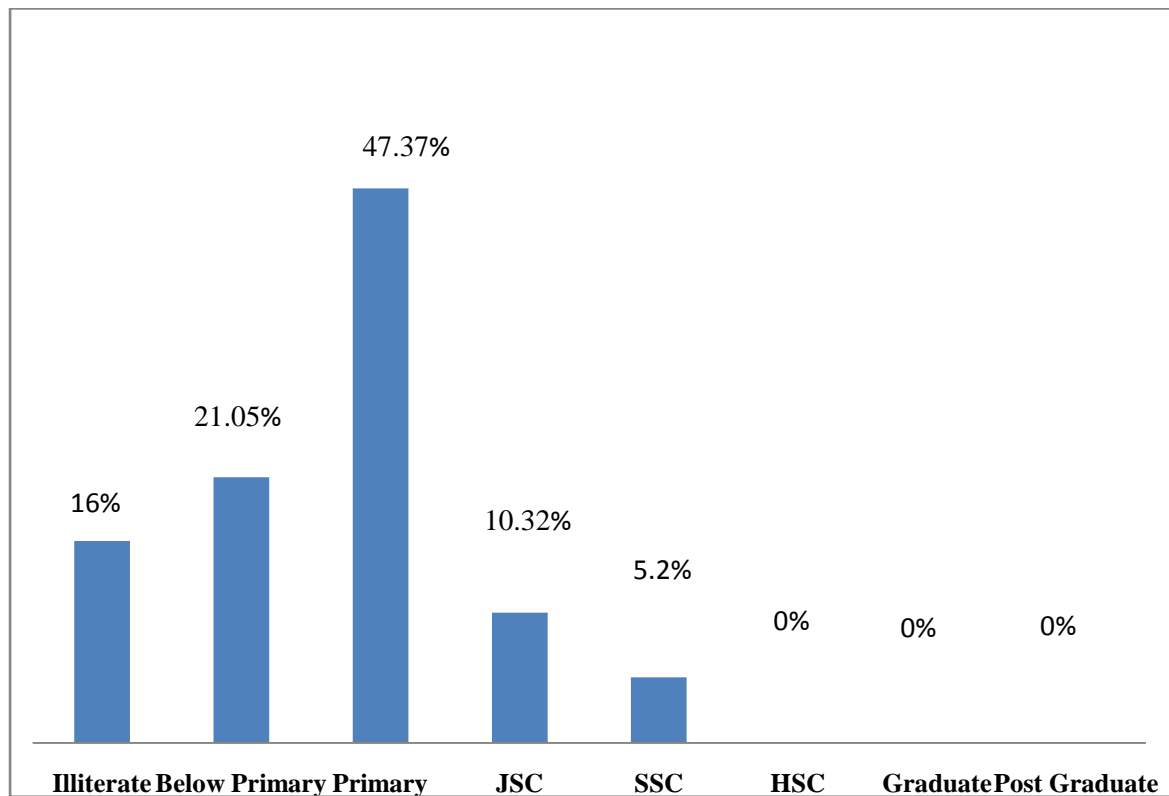


Figure 3: Educational status of Female respondent

Almost 48% participants in this study were completed primary level education. No one passed higher secondary certificate. Twenty-one percent respondents were below primary and about 16% were completely illiterate who cannot read and write.

4.3 Marital status of Female Respondent

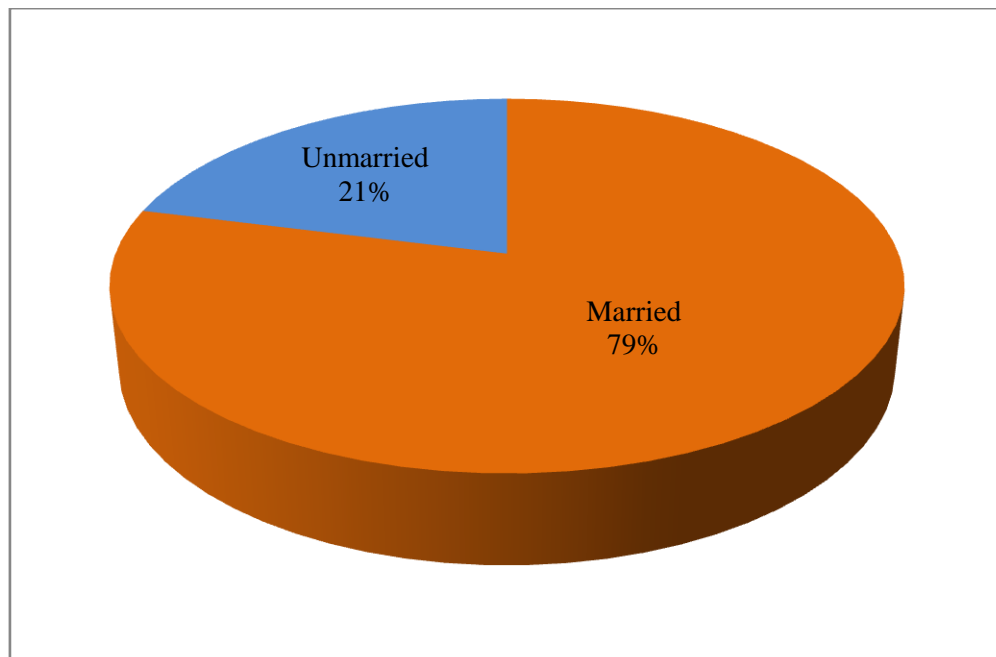


Figure 4: Marital status of female respondents

In the above figure it is seen that 79% of female respondents were married. Their age group was 19 to 27 years and 21% were unmarried. Most of the unmarried persons were as the age group of 15-18 years.

4.4 Age at Menarche of female respondents

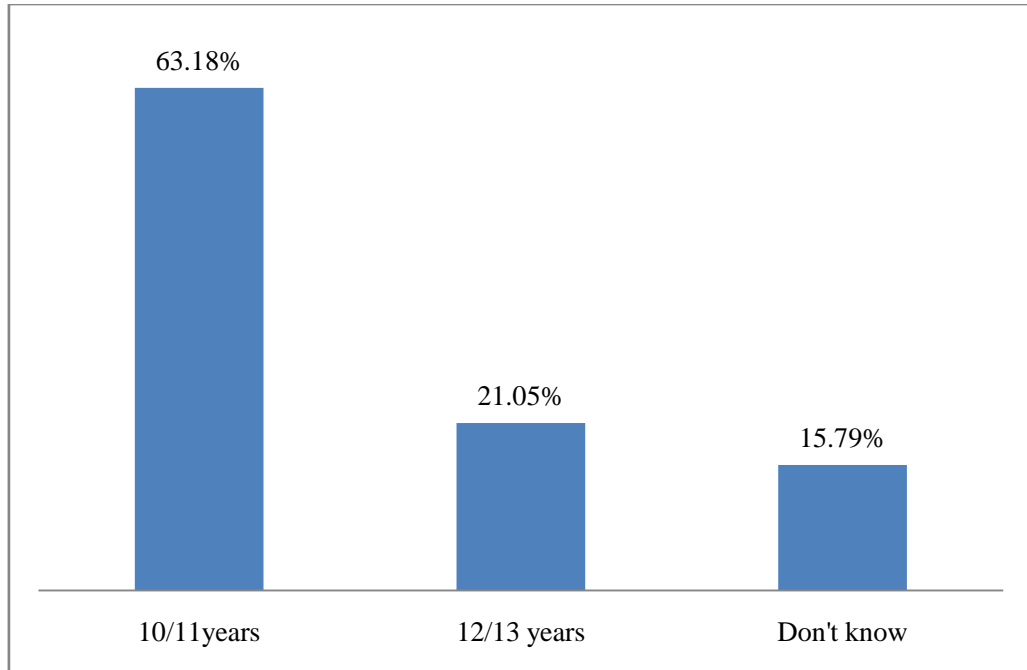


Figure 5: Age at Menarche of female respondents

Age at the menarche was 10 to 11 years in 63.18% female respondents. About 21% faced menarche at 12 to 13 years of age. However, about 16% respondents could not remember the age of menarche.

4.5 Duration of Menstrual Cycle counted by female respondent

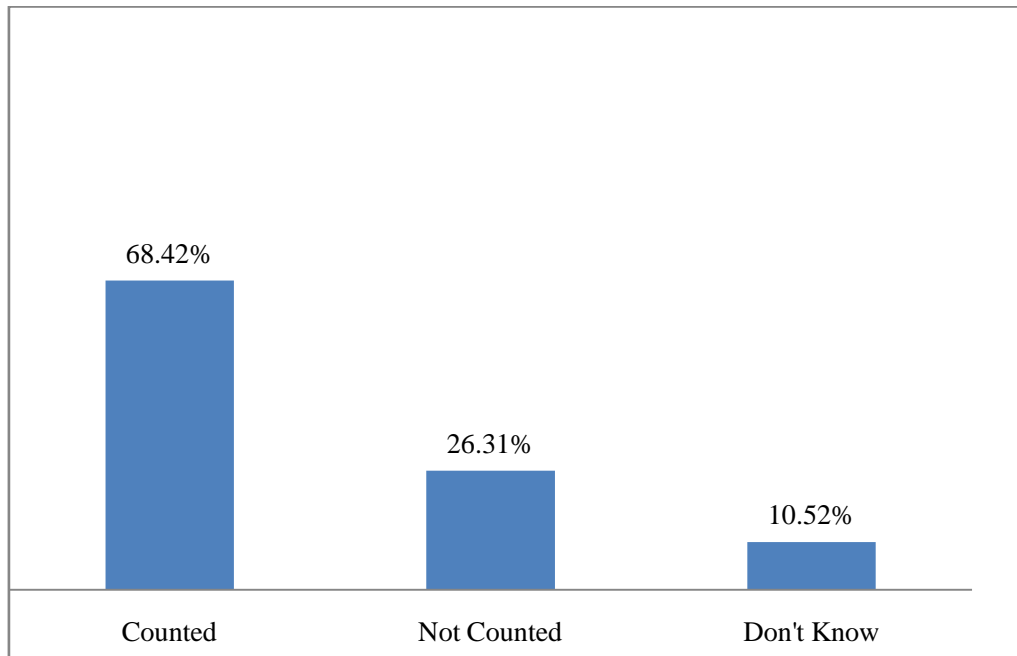


Figure 6: Duration of menstrual cycle counted by female respondent

In this figure, it is shown that 68.42% female respondents counted the duration of their own menstruation cycle. About 26.31% were not bothered to count the duration and 10.52% respondents did not know the necessity to count duration of menstruation cycle.

4.6 Menstruation Predicted in Female Respondent

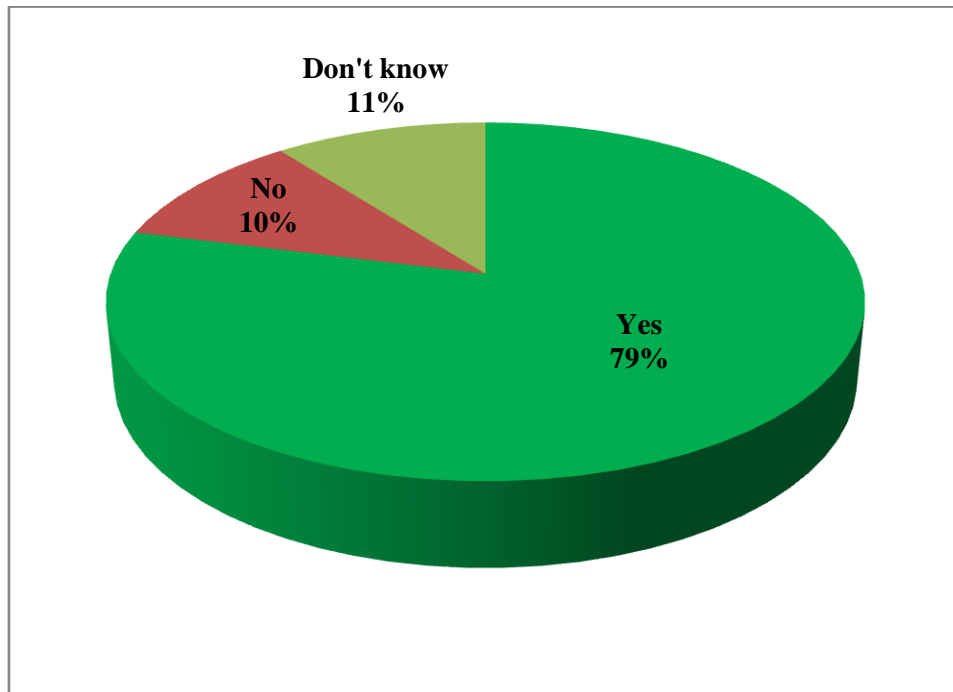


Figure 7: Menstruation Predicted in Female Respondent

Figure shows that around 79% female respondents could anticipate and predict the onset of menstruation as they had pre-menstrual symptoms like abdominal pain or cramp, joint and muscle pain or headache etc. Onset of action could not be anticipated and predicted by 10% respondents. About 11% respondents could not satisfy by answering accurately.

4.7 Medication taken for Decreasing Pain during menstruation

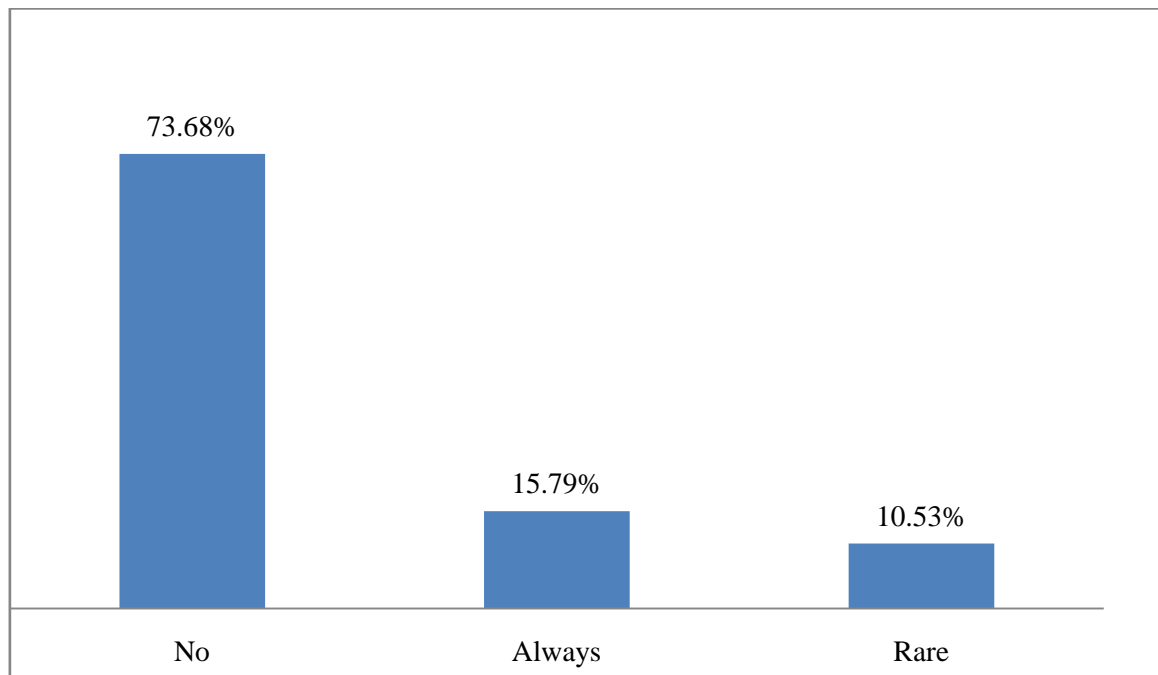


Figure 8: Medication taken for Decreasing Pain during menstruation

About 73% slum respondents did not take any medication to relieve their pain during menstruation period. About 15.79% respondents always take medication to alleviate severe pain. Eleven percent (11%) takes rarely any medication for treating pain.

4.8 Knowledge regarding the chance of being Pregnant

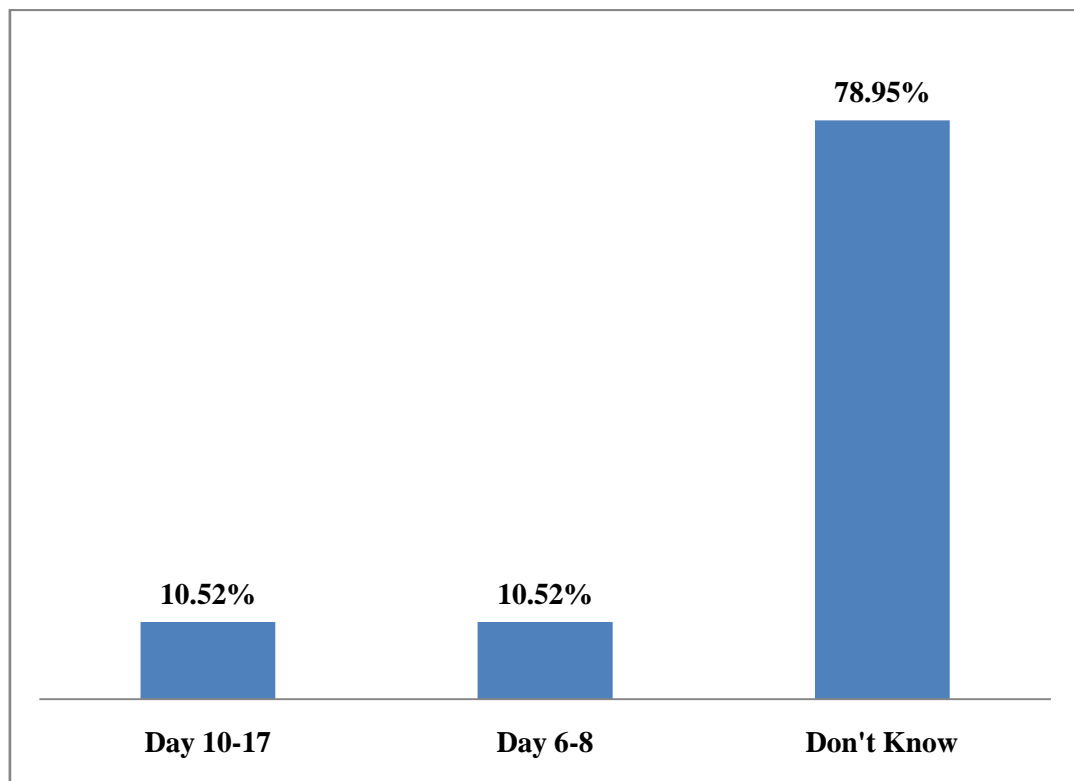


Figure 9: Knowledge regarding the Chance of being Pregnant

Majority (78.95%) of the slum respondents did not know which time a woman has a great chance to be pregnant in a menstruation cycle. A very few women responded correct answer which is day 10-17 of menstruation cycle. About 10.52% respondents gave wrong answered.

4.9 Respondents' knowledge on Contraceptive pill causing Infertility

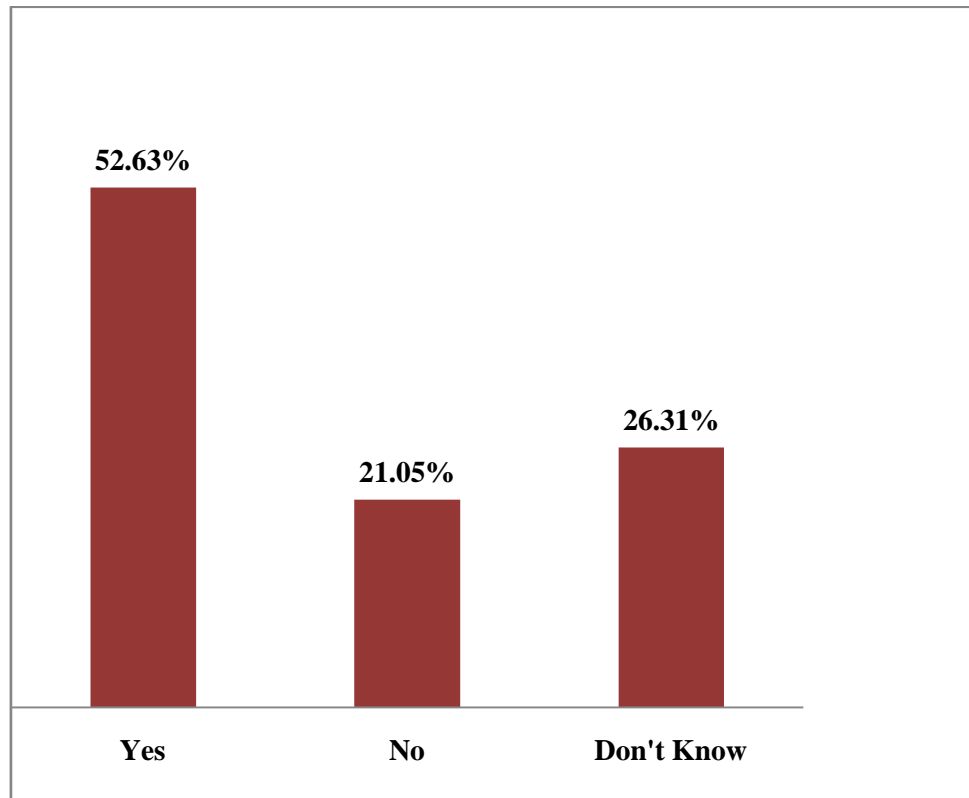


Figure 10: Respondents' knowledge on Contraceptive pill causing Infertility

Among female respondents 52.63% knew that contraceptive pill causes infertility in women. About 21% did not think that so and around 26% had no knowledge of infertility after having contraceptive pill.

4.10 Knowledge of physiology of Menstruation

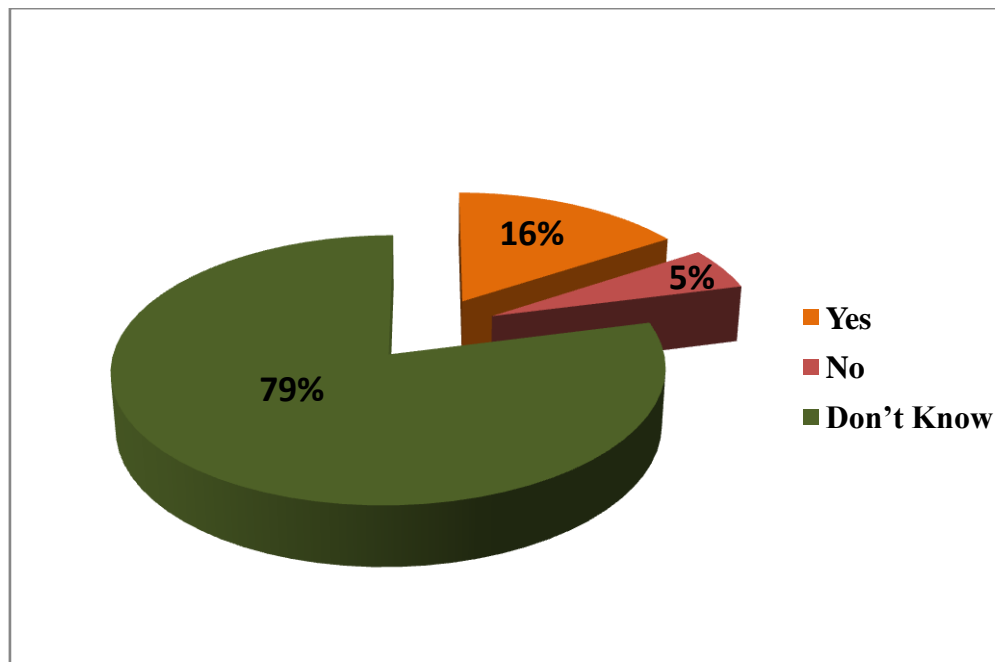


Figure 11: Knowledge of physiology of Menstruation

Most of the respondents (79%) did not know the source of menstrual blood. About 16% gave positive results and 5% gave negative answer.

4.11 Burden of menstrual event among women

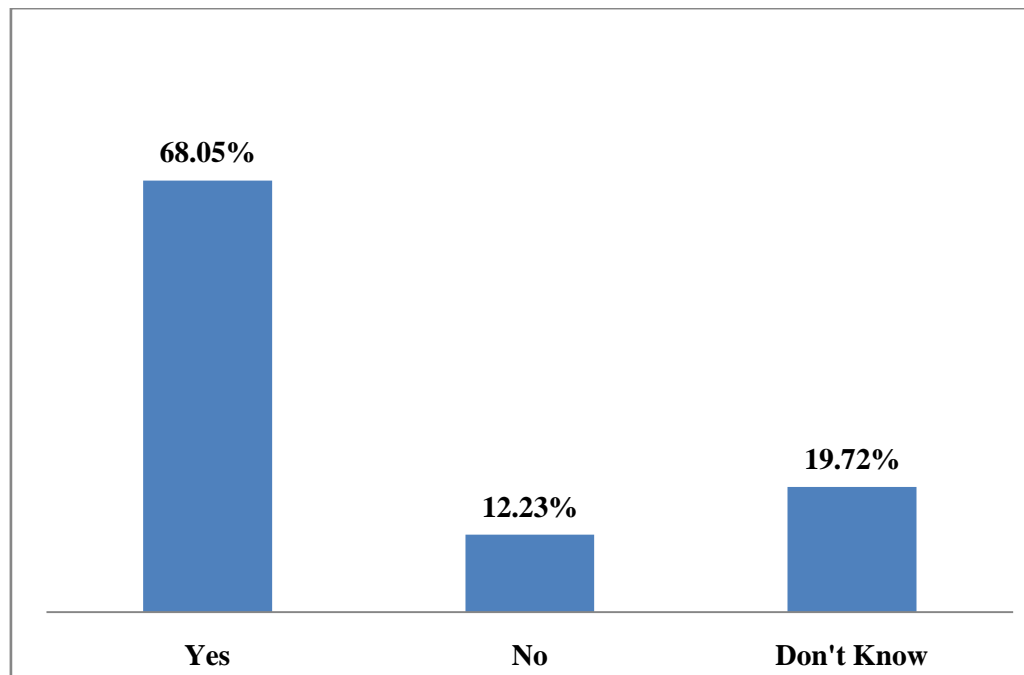


Figure 12: Burden of menstrual event among women

Figure show that 68.05% female mentioned that menstrual event is a burden in women's life. Twelve percent did not agree with it and about 19.72 % female did not mention anything.

4.12 Knowledge of Sexual Transmitted Diseases (STIs)

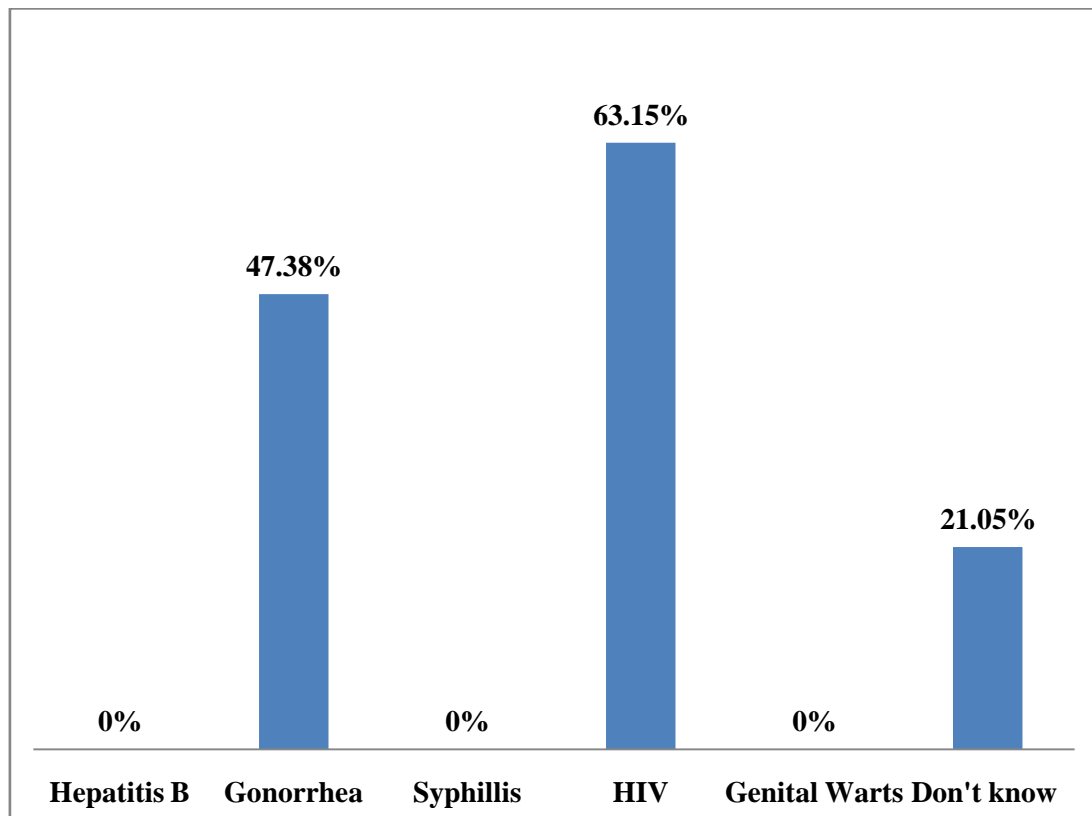


Figure 13: Knowledge of Sexual transmitted diseases (STIs)

Approximately 63.15% respondents knew that HIV is a sexually transmitted infection and 47.38% people heard about Gonorrhea as sexually transmitted infections. However, 21.05% respondents had no idea about sexually transmitted infections

4.13 Knowledge of Prevention of STIs

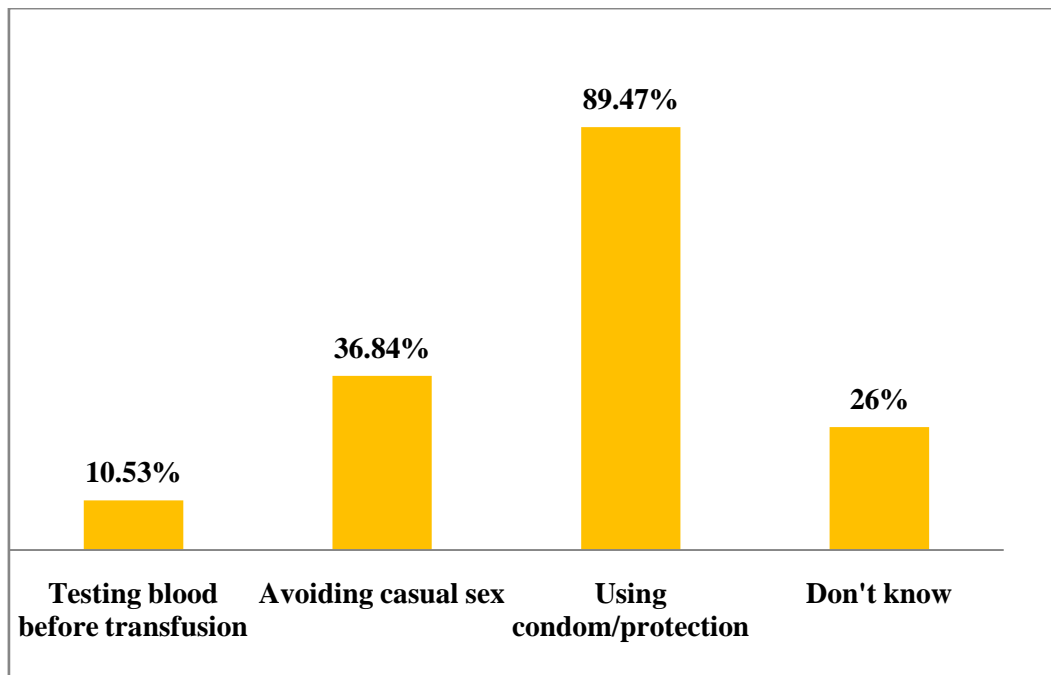


Figure 14: Knowledge of prevention of STIs

In the study 89.47% respondents answered that Sexually Transmitted Infections (STIs) can be prevented by using condom. About 36.84% knew that avoiding casual sex can prevent STIs and 10.53% knew the way to prevent STIs by testing blood before transfusion. Around 26% had no idea of prevention of STIs.

CHAPTER 5

DISCUSSION AND CONCLUSION

Discussion and Conclusion

This study was designed to assess the awareness and knowledge about menstruation, pregnancy and sexually transmitted diseases among slum living women in Dhaka city, Bangladesh. During eight months period 120 female respondents were included in this study. The selected study areas were Meradia, Aftabnagar and Nayapara in Dhaka city, Bangladesh.

It has been shown from this present study that 63% female experienced the age at the menarche between 10 and 11 years. About 68% female respondents counted the duration of their own menstruation cycle. Around 79% female respondents could anticipate and predict the onset of menstruation as they had pre-menstrual symptoms like abdominal pain or cramp, joint and muscle pain or headache etc. More than 50% participants knew that contraceptive pill causes infertility in women. Approximately 63% respondents knew that HIV is a sexually transmitted infection and 47% people heard about Gonorrhoea as sexually transmitted infections. However, 21% respondents had no idea about sexually transmitted infections. In this study, 89% respondents had knowledge that the Sexually Transmitted Infections (STIs) can be prevented by using condom. It is also shown that 37% women knew that avoiding casual sex can prevent STIs.

Reproductive health refers to the disease, disorder and condition that affect the functioning of the male and female reproductive systems during all stages of life. Disorders of reproduction include birth defects, developmental disorders, low birth weight, preterm birth, reduced fertility, impotence, and menstrual disorders. Awareness and attitude towards reproductive health is important to reduce the adverse consequences of sexual behavior and to improve the quality of sexual relationships for young people. Menstruation and pre-menstrual symptoms and disorders and post-menstrual disorders, menopause, pregnancy and contraception, sexual transmitted diseases (STDs) and its prevention all are included in reproductive health.

A recent study (2016) conducted by Dudeja et al has shown that the average age at menarche was 11.97 years. It was seen that the knowledge about menarche was acquired by only half of population (56.4%). It was also shown that only half (50.7%) of the respondents knew the source of menstrual blood and about 90% young women face physical complication during the menstruation. It has been also shown from a study that 67% of the students were unable

to mention the time at which a girl can be able to conceive. If a girl gets married before 18 years of age, it is safe for her – it was reported by 80% of the students. [Dudeja P *et al*, 2016]

In our study, most of the respondents completed primary education level. They lack the knowledge regarding the reproductive health. Some of the participants do not understand the necessity to know the duration of their own menstrual cycle and the days at which there is big chance to become pregnant. Around 80% respondents had no idea of the source of menstrual blood.

A study was conducted based on awareness about sexually transmitted infection (STIs) in India has shown that 70% respondents were unable to mention any one of the symptoms of STIs. Among the respondents 73% said that monogamous relationships could prevent STIs and 39.2% mentioned that use of condom can give protection against STIs. Participants who faced several STIs had urethral discharge (8.7%), itching (5.6%), genital ulcer (2.5%) and groin swelling (1%). [Garg S *et al*, 2007]

Our study shows that knowledge of our respondents regarding sexually transmitted disease (STIs) and its prevention are inadequate. The respondents have understanding about the HIV infection. Approximately 63% respondents knew that HIV is a sexually transmitted infection and 48% people heard about Gonorrhoea as sexually transmitted infections. However, 21% respondents had no idea about sexually transmitted infections such as syphilis, hepatitis B, genital warts and others. In the present study most of the respondents (89%) had knowledge about the prevention of STIs by using condom. About 36% knew that avoiding casual sex can prevent STIs and 10% knew the way to prevent STIs by testing blood before transfusion. However, 26% participants had no idea of prevention of STIs.

Based on the present study it can be concluded that awareness and knowledge on reproductive health is not sufficient among slum living young women in Dhaka City, Bangladesh.

Awareness of reproductive health can be conducted with high efficiency in remote area of Bangladesh. Government should take proper steps to increase the awareness on reproductive health issues among people. This present study was conducted on randomly chosen female respondents from slum area and in a very small scale. There is a great scope to assess the knowledge, attitude and practice on reproductive health issue among slum living women in Dhaka city, Bangladesh.

CHAPTER 6
REFERENCES

References

Bortolus, R, Oprandi, N, RechMorassutti, F, Marchetto, L, Filippini, F, Agricola, E, Tozzi, A, Castellani, C, Lalatta, F, Rusticali, B&Mastroiacovo, P 2017, 'Why women do not ask for information on preconception health? a qualitative study', *BioMed central pregnancy childbirth*, vol.17, no. 5. doi: 10.1186/s12884-016-1198-z.

Center for Disease Control and Prevention 2017, 'Women's reproductive health', viewed 19 June 2017, <https://www.cdc.gov/reproductivehealth/womensrh/>

Center for Disease Control and Prevention 2016, 'How you can prevent sexually transmitted diseases', viewed 15 June 2017, <http://www.cdc.gov/std/prevention/>

Cowan, FM 2002, 'Adolescent reproductive health interventions', *British Medical Journal*, vol 78, no 5, pp. 315–318. doi: 10.1136/sti.78.5.315.

Chipeta, EK, Chimwaza, W, & Linda, K 2010, 'Contraceptive knowledge, beliefs and attitudes in rural Malawi: manifestation, misbeliefs and misperceptions', *Malawi Medical Journal*, vol . 22, no.2, pp. 38-41.

Dudeja, P, Sindhu, A, Shankar, P & Gadekar, T 2016, 'A cross-sectional study to assess awareness about menstruation in adolescent girls of an urban slum in western Maharashtra', *International Journal of Adolescent Medicine and Health*. doi: 10.1515/ijamh-2016-0079.

Freeman, EW n.d., 'Premenstrual Syndrome', healthywomen, viewed 4 June 2017, <http://www.healthywomen.org/condition/premenstrual-syndrome>

Garg, S, Singh, MM, Nath, A, Bhalla, P, Garg, V, Gupta, VK & Uppal, Y 2007, 'Prevalence and awareness about sexually transmitted infections among males in urban slums of Delhi', *Indian journal of medical sciences*, vol. 61, no. 5, pp.269-77.

Health Educational and Training n.d., *Antenatal Care, Part 1 Blended Learning Module for the Health Extension Programme*, HEAT, Africa, pp. 38-44.

Mushi, D, Mpembeni, R & Jahn, A 2017, 'Knowledge about safe motherhood and HIV/AIDS among school pupils in a rural area in Tanzania', *BioMed Central Pregnancy and Child birth*, vol. 7, no. 5. doi: 10.1186/1471-2393-7-5

Nasim, M 2016, '4,143 HIV positive patients in Bangladesh', *The Daily Star*, 28 September, viewed 19 May 2017, <http://www.thedailystar.net/country/4143-hiv-positive-patients-bangladesh-nasim-1291060>

National Institute of Child Health and Human Development 2013, 'Pregnancy: Condition information', NICHHD, viewed 16 May 2017, <https://www.nichd.nih.gov/health/topics/pregnancy/conditioninfo/Pages/default.aspx20>

Raheel, H, White, F, Kadir, MM & Fatmi, Z 2007, 'Knowledge and beliefs of adolescents regarding sexually transmitted infections and HIV/AIDS in a rural district in Pakistan', *The Journal of the Pakistan Medical Association*, vol. 57, no. 1, pp. 8-11.

Tanaka, E, Momoeda, M, Osuga, Y, Rossi, B, Nomoto, K, Hayakawa, M, Kokubok & Wang, EC 2013, 'Burden of menstrual symptoms in Japanese women: results from a survey-based study', *Journal of medical economics*, vol. 16, no. 11, pp. 1255-66. doi: 10.3111/13696998.2013.830974.

The American College of Obstetricians and Gynecologist 2015, 'Menstruation in girls and adolescents: using the menstrual cycle as a vital sign', *Obstetrics & Gynecology* vol.126, no.6, pp. 143-6. doi: 10.1097/AOG.0000000000001215.

The Office on Women's Health, U.S Department of Health and Human Services 2017, 'The state of reproductive health in women veteran', viewed 11 June 2017, https://www.womenshealth.va.gov/WOMENSHEALTH/docs/SRH_FINAL.pdf

The Office on Women's Health, U.S Department of Health and Human Services 2017, 'Preconception health', viewed 15 June 2017, <https://www.womenshealth.gov/pregnancy/you-get-pregnant/preconception-health>

The Office on Women's Health, U.S Department of Health and Human Services 2017, 'Menstruation and the menstrual cycle', viewed 12 June 2017, <https://www.womenshealth.gov/a-z-topics/menstruation-and-menstrual-cycle>

World Health Organization 2017, 'Reproductive health', viewed 11 June 2017, http://www.who.int/topics/reproductive_health/en/

World Health Organization 2017, 'Sexually transmitted infections', viewed 23 March 2017, <http://www.who.int/mediacentre/factsheets/fs110/en/>

Zepre, K & Kaba, M 2017, 'Birth preparedness and complication readiness among rural women of reproductive age in Abeshige district, Guraghe zone, SNNPR, Ethiopia', vol. 9, pp. 11-21. doi; 10.2147/IJWH.S111769