CHAPTER-I

INTRODUCTION

1.1   Background

Adolescent is defined by WHO (2011) as a person between 10-19 years of age. There are about 1.2 billion adolescents worldwide and one in every five people in the world is an adolescent. Adolescents constitute 18-25 percent of the population in member countries of South East Asia Region. Adolescents comprise of 20 percent of the world's total population. Out of 1.2 billion adolescents worldwide, about 85 percent live in developing countries (Lena A, 2008). Adolescence is a transition period from childhood to adulthood and is characterized by a spurt in physical, emotional and mental growth with a change from complete dependence to relative independence. The period of adolescence for a girl is a period of physical and psychological preparation for safe motherhood. As the direct reproducers of future generations, the health of adolescence girls influence not only their own health, but also the health of future population. One of the major physiological changes that take place in adolescent girls is the onset of menarche, which is often associated with problems of irregular menstruation, excessive bleeding and dysmenorrhoea. Of these, dysmenorrhoea is one of the common problems experienced by many adolescent girls (Agrawal & Agrawal, 2010).

The adolescent population in Nepal is approximately 6 million (24%) of total population (UN, Nepal Information Platform, 2012). Owing to high fertility and young age distribution of population, the proportion of adolescents in the total population is likely to increase in the coming years. The onset of menstruation is part of the maturation process. However, variability in menstrual cycle characteristics and menstrual disorders are common which could have important impacts on the daily activities, and disturb the productivity at home or at their work place. One of the common menstrual disorder is dysmenorrhoea, the cyclic menstruation pain in the lower abdomen usually associated with other gastrointestinal and neurological symptoms. It may be associated with pathology (secondary dysmenorrheal) or may be idiopathic in origin (primary dysmenorrhea-more prevalent) (Dangal G, 2004).

Dysmenorrhea is a common disorder that affects approximately 40-95% of menstruating women (Adhikari. et.al, 2010).

Dysmennorrhoea is painful menses in females with normal pelvic anatomy, usually beginning during adolescence. It is characterized by cramp pelvic pain beginning shortly before or at the onset of menses and lasting 1 to 3 days. It is thought to be due to a release of prostaglandins and leukotrienes (local Hormones) in the menstrual fluid, which in turn produces vasoconstriction (narrowing of blood vessels) in the uterine vessels, causing the uterine contractions which produce the pain. The prostaglandin release may also be responsible for gastrointestinal disturbance which may occur in association with dysmenorrhoea. Although dysmenorrhea is frequent problem among adolescents, many do not seek help from health care provider. Studies on the prevalence of menstrual pain have shown that many factors are related to this disorder. These factors include a younger age, low Body Mass Index (BMI), smoking, early menarche, prolonged or aberrant menstrual flow, premenstrual somatic complaints, pelvic infections, previous sterilization, somatization, psychological disturbance, genetic influence, and a history of sexual assault influencing the prevalence and severity of dysmenorrheal (Dangal, 2004).Dysmenorrhoea, especially when it is severe, is associated with a restriction of activity and absence from school or work.

Most women use NSAIDs like ibuprofen, naproxen, and mefanamic acid to relieve the pain by controlling the production of prostaglandins and reducing contraction in the uterus. These are taken about two days before menses begins and up to two days after the cycle ends. However, these can gave side effects such as nausea, peptic ulcer, dyspepsia, and diarrhea. The use of oral contraception and hormone medication is also recognized to relieve symptoms of primary dysmenorrhea. There are also alternative treatments for the pain of dysmenorrhea. Acupuncture and TENS have been acknowledged to relieve pain. Other alternative treatments include vitamin B1, magnesium and iron supplements, herbal concoctions, and acupressure.

Although these treatments have been known to relieve cramps and aid in the relaxation and stress relief of some women, doctors still advise the use of these treatments with caution since they may cause side effects or possibly inhibit the effectiveness of over-the-counter medicines that are already being taken by the

patient. Aside from these, there are also a number of non-medicinal home treatments that can be applied to relieve primary dysmenorrhea. Simple chiropractic treatment involves pacing the spine in a comfortable position, thus relieving symptoms such as lower back pressure, abdominal pain, dizziness, and headaches. Gentle abdominal massages, warm baths, hot compresses, and mild exercises like walking and stretching are also done to minimize cramping and relieve pain.

Adolescent girls often do not receive accurate information about menstrual health because of culturally specific practices that lead to incorrect and unhealthy behaviors .Adolescents are the special group of population whose needs should be sensitively addressed. It is also evident that adolescents have diverse type of age, sex, circumstances and behavior related problems, which need to be addressed.

Research worldwide has addressed issues related to menstrual health. Studies have revealed the effectiveness of health education interventions conducted among high school, guidance school and even primary school girls. A study in Nepal reported that knowledge and practices related to menstruation were not satisfactory (Fakhri et al., 2012).

Morbidity due to dysmenorrhea represents a substantial public health burden. It is one of the leading causes of absenteeism from school and work and is responsible for significant loss of earnings and diminished quality of life.

1.2   Statement of the Problem

Menstruation has important implications on the physical and emotional well-being of adolescents' reproductive health. Dysmenorrhea is pain during menstruation. It usually begins around the time that menstruation begins. Symptoms typically last less than three days. The pain is usually in the pelvis or lower abdomen. Other symptoms may include back pain, diarrhea, or nausea. Dysmenorrhea is a common issues related to menstrual health as it is one common disorder among menstrual disorders. Very few studies have been conducted in field of menstrual health including dysmenorrhea in adolescence in Nepalese context. Adolescent girls, almost always, silently suffer the pain by dysmenorrhea and the discomfort associated with it due to lack of knowledge about reproductive health and probably that this also affects their academic performance.

Most adolescent girls in varied populations report experiencing dysmenorrhea,and approximately 15% describe the pain as severe. Morbidity due to dysmenorrhea represents a substantial public health burden. Based on estimates from the U.S. Census, approximately 2 million adolescents, or 15% of the total females aged 13–19 years, experience severe dysmenorrhea (Davis. et al., 2005).

Dysmenorrhea is highly prevalent during adolescence. Despite differences in measurement methods, (20%–90%) of adolescent girls report dysmenorrhea and about (15%) of adolescents describe their dysmenorrhea as severe. During adolescence, dysmenorrhea leads to high rates of school absence and activity nonparticipation. Most adolescents with dysmenorrhea self-medicate with over-the-counter preparations; few consult healthcare providers (Davis. et al., 2001).

Dysmenorrhea is a very common problem among adolescent girls; it affects their quality of life. It can be better managed by mental preparation and by appropriate change in lifestyle like regular physical exercise and behavior modification.

In this context, this research attempts to carry out an analysis of knowledge and practice regarding dysmenorrhea among female adolescent students of secondary level. More specifically, it seeks the answers to the following research questions:

- What is the existing knowledge of adolescents regarding dysmenorrhea?
- What are the practices for management of dysmenorrhea among adolescents?
- What is the socio-cultural effect on adolescents during menstruation?

1.3   Objectives

General Objective

The general objective of this study is to assess the existing knowledge and practice regarding dysmenorrhea among adolescent girls.

Specific Objectives

- To identify the existing knowledge about dysmenorrhea;
- To identify the practice level about dysmenorrhea;
- To examine the association between socio-demographic characteristics and knowledge about dysmenorrhea;

) To examine the association between socio-demographic characteristics and practice about dysmenorrhea**.**

1.4 Rationale

Menstruation is a natural process throughout much of a women's life. Yet menstruation is seldom openly discussed. The dysmenorrhea is a common problem of most of the adolescent girls.

In the context of Nepal, it is very secret affairs and girls are very shy to talk about menstruation and arising problems and it is rarely discussed with elders in the family. Therefore researcher is interested to explore knowledge and practice about dysmenorrhea among adolescent girls. This study finds out the situation and management practice of dysmenorrhea, among adolescent school girls of Pokhara valley.

By this study the prevalence of dysmenorrhea and the IEC regarding dysmenorrhoea can be studied and also the factors associated(influenced) with the dysmenorrhoea with its managementcan be traced out among adolescents. The findings of this study can suggest to the concern organizations to develop educational interventional package on dysmenorrhoea and its management for school girls.

Similarly, the findings of this study will be useful for the local and central level health service managers for the evidence based decision making during preparation and implementation of health policies, programs and strategies in the areas of Adolescent Health.`                                `

1.5 Limitation

It is obvious to have some constraint on any study. The limitations of the study are as follows:

) Since, the study was conducted on female adolescent students aged 12 to 19 years, the study could not be generalized because the study was exclusively academic and sample size and time was limited.

) This study included only sociological/anthropological research tools and methods.

1.6   Operational Definition of Key Terms

Age: In this study, age means the age of the respondent while collecting data.

Education: In this study, education refers to the education of the respondent's parents where education is categorized as illiterate and literate.

Illiterate: It means who cannot read and write.

Literate: It is categorized as Formal and Informal education.

Informal education: It refers to those respondents, literate from Informal education program like old age education, adult education etc.

Formal education: It refers to those respondents, literate from formal education institution.

Ethnicity: Ethnicity means that community which has its own mother tongue, traditional culture, identity, religion and geographical area of the respondents which are categorized as Brahmin/ Chhetri, Janajatis and Dalits.

Source of Information: It is defined as the source which provides the information and knowledge about dysmenorrhea by Radio, Television, Books, Newspaper, Friends, Health person, Posters etc.

Knowledge: In this study, knowledge refers to the information and understanding which is gained by respondents through experience or education about dysmenorrhea. It is categorized as:

Good level of knowledge: It refers to more than 80% correct response of the total questions.

Fair level of knowledge: It refers to 60%-80% correct response of the total questions

Poor level of knowledge: It refers to less than 60% correct response of the total questions.

Practice: It refers to the action intended to do in order to prevent and manage dysmenorrhea. The practice is assessed by evaluating on the respondents' action towards dysmenorrhea management those who have dysmenorrhea. Management practices include: poor and satisfactory.

Health Beliefs: It denotes those feelings for health that something exists or truth related to dysmenorrhea.

1.7   Organization of the Study

This study has been divided into eight chapters followed by bibliographies and annexes and it has been presented study areas wise order so that the research study could lead to achieve the objectives precisely. The first chapter deals with the introductory part of the dysmenorrhea containing statement and objectives of the study, second is about the concerned literature, third with the research methodology applied, fourth about the study area, fifth about the socio-demographic characteristics of the respondents, sixth and seventh about the knowledge and practice management about dysmenorrhea followed by the concluding eighth chapter, which contains the summary, findings and conclusion of the study.

CHAPTER-II

LITERATURE REVIEW

2.1   Concept Overview

Menstruation is the periodic discharge of blood and mucosal tissue from the inner lining of the uterus through the vagina. This cyclic discharge is seen in females of certain mammalian species (including humans). It begins with the onset of menarche at or before sexual maturity and stops at or near menopause. Dysmenorrhea (dysmenorrhoea or painful periods) is a medical condition of pain during menstruation that interferes with daily activities, as defined by American Congress of Obstetrics and Gynecology. Still, dysmenorrhea is often defined simply as menstrual pain, or at least menstrual pain that is excessive.

The study will be based on different approaches to study about dysmenorrhea- the socio-cultural, socio-demographic approaches etc. studies characterizing variables from each approach were reviewed. None of the above approaches alone can provide details about dysmenorrhea. All the approaches combined in total provide the overall picture of the knowledge and practice regarding dysmenorrhea.

2.2   Theoretical Overview

There are several theories that can be applied to adolescent health and reproductive health. For example, based on the premise that using health services is behavior, social learning theory would attribute using health services to external social forces rather than inherent individual's preferences. The theories applied to this study are Health belief model, Theory of Social Suffering and Theory of Planned Behavior.

Health Belief Model

The health belief model is a psychological health behavior change model developed to explain and predict health-related behaviors, particularly in regard to the uptake of health services. The Health Belief Model (HBM) is a psychological model that attempts to explain and predict health behaviors. This is done by focusing on the attitudes and beliefs of individuals. The health belief model was developed in the 1950s by social psychologists at the U.S. Public Health Service and remains one of the best known and most widely used theories in health behavior research. The health

belief model suggests that people's beliefs about health problems, perceived benefits of action and barriers to action, and self-efficacy explain engagement (or lack of engagement) in health-promoting behavior. A stimulus, or cue to action, must also be present in order to trigger the health-promoting behavior.

The following constructs of the health belief model are proposed to vary between individuals and predict engagement in health-related behaviors.

Perceived Severity

Perceived severity refers to subjective assessment of the severity of a health problem and its potential consequences. The health belief model proposes that individuals who perceive a given health problem as serious are more likely to engage in behaviors to prevent the health problem from occurring (or reduce its severity). Perceived seriousness encompasses beliefs about the disease itself (e.g., whether it is life-threatening or may cause disability or pain) as well as broader impacts of the disease on functioning in work and social roles. For instance, an individual may perceive that influenza is not medically serious, but if he or she perceives that there would be serious financial consequences as a result of being absent from work for several days, then he or she may perceive influenza to be a particularly serious condition.

Perceived Susceptibility

Perceived susceptibility refers to subjective assessment of risk of developing a health problem. The health belief model predicts that individuals who perceive that they are susceptible to a particular health problem will engage in behaviors to reduce their risk of developing the health problem. Individuals with low perceived susceptibility may deny that they are at risk for contracting a particular illness. Others may acknowledge the possibility that they could develop the illness, but believe it is unlikely. Individuals who believe they are at low risk of developing an illness are more likely to engage in unhealthy, or risky, behaviors. Individuals who perceive a high risk that they will be personally affected by a particular health problem are more likely to engage in behaviors to decrease their risk of developing the condition.

The combination of perceived seriousness and perceived susceptibility is referred to as perceived threat. Perceived seriousness and perceived susceptibility to a given health condition depend on knowledge about the condition. The health belief model

predicts that higher perceived threat leads to higher likelihood of engagement in health-promoting behaviors.

Perceived Benefits

Health-related behaviors are also influenced by the perceived benefits of taking action. Perceived benefits refer to an individual's assessment of the value or efficacy of engaging in a health-promoting behavior to decrease risk of disease. If an individual believes that a particular action will reduce susceptibility to a health problem or decrease its seriousness, then he or she is likely to engage in that behavior regardless of objective facts regarding the effectiveness of the action. For example, individuals who believe that wearing sunscreen prevents skin cancer are more likely to wear sunscreen than individuals who believe that wearing sunscreen will not prevent the occurrence of skin cancer.

Perceived Barriers

Health-related behaviors are also a function of perceived barriers to taking action. Perceived barriers refer to an individual's assessment of the obstacles to behavior change. Even if an individual perceives a health condition as threatening and believes that a particular action will effectively reduce the threat, barriers may prevent engagement in the health-promoting behavior. In other words, the perceived benefits must outweigh the perceived barriers in order for behavior change to occur. Perceived barriers to taking action include the perceived inconvenience, expense, danger (e.g., side effects of a medical procedure) and discomfort (e.g., pain, emotional upset) involved in engaging in the behavior. For instance, lack of access to affordable health care and the perception that a flu vaccine shot will cause significant pain may act as barriers to receiving the flu vaccine.

Modifying Variables

Individual characteristics, including demographic, psychosocial, and structural variables, can affect perceptions (i.e., perceived seriousness, susceptibility, benefits, and barriers) of health-related behaviors. Demographic variables include age, sex, race, ethnicity, and education, among others. Psychosocial variables include personality, social class, and peer and reference group pressure, among others. Structural variables include knowledge about a given disease and prior contact with

the disease, among other factors. The health belief model suggests that modifying variables affect health-related behaviors indirectly by affecting perceived seriousness, susceptibility, benefits, and barriers.

Cues to Action

The health belief model posits that a cue, or trigger, is necessary for prompting engagement in health-promoting behaviors. Cues to action can be internal or external. Physiological cues (e.g., pain, symptoms) are an example of internal cues to action. External cues include events or information from close others, the media, or health care providers promoting engagement in health-related behaviors. Examples of cues to action include a reminder postcard from a dentist, the illness of a friend or family member, and product health warning labels. The intensity of cues needed to prompt action varies between individuals by perceived susceptibility, seriousness, benefits, and barriers. For example, individuals who believe they are at high risk for a serious illness and who have an established relationship with a primary care doctor may be easily persuaded to get screened for the illness after seeing a public service announcement, whereas individuals who believe they are at low risk for the same illness and also do not have reliable access to health care may require more intense external cues in order to get screened.

Self-Efficacy

Self-efficacy was added to the four components of the health belief model (i.e., perceived susceptibility, seriousness, benefits, and barriers) in 1988. Self-efficacy refers to an individual's perception of his or her competence to successfully perform a behavior. Self-efficacy was added to the health belief model in an attempt to better explain individual differences in health behaviors. The model was originally developed in order to explain engagement in one-time health-related behaviors such as being screened for cancer or receiving an immunization. Eventually, the health belief model was applied to more substantial, long-term behavior change such as diet modification, exercise, and smoking. Developers of the model recognized that confidence in one's ability to effect change in outcomes (i.e., self-efficacy) was a key component of health behavior change.

In this study, socio-demographic factors act as modifying factors for perceived seriousness of dysmenorrhea and education, symptoms and source of information aid

in cues to action. The symptoms and perception associated with dysmenorrhea is more of a social construction than biomedical reality.
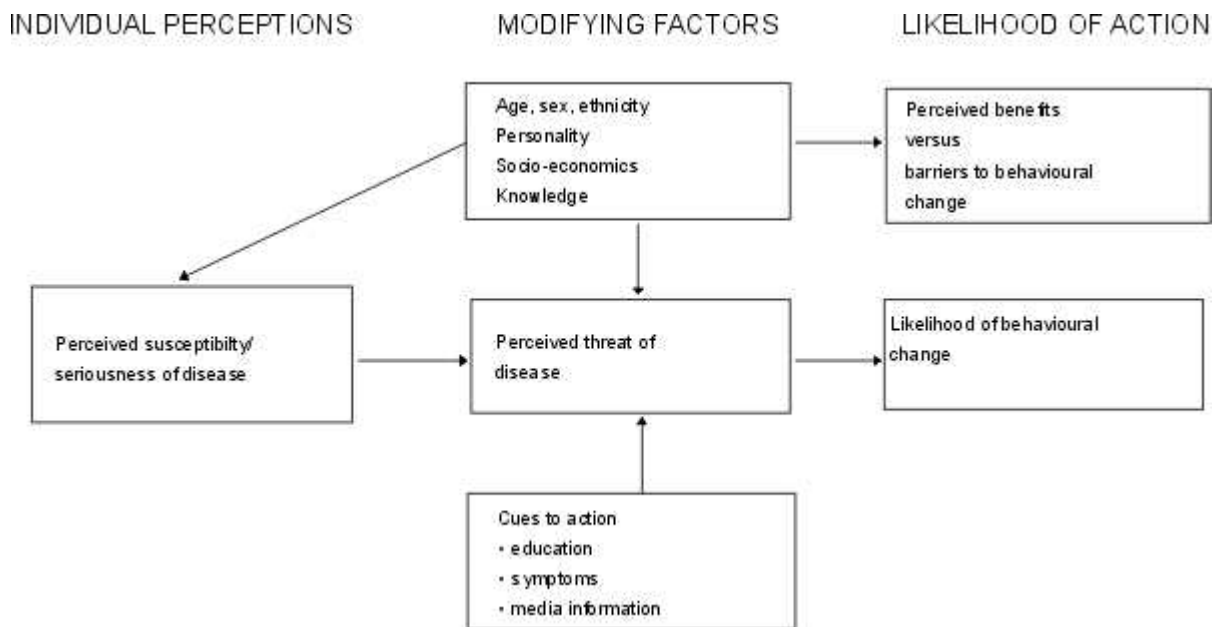

Figure 2.1: Conceptual Framework of Health model theory

Theory of Social Suffering

Likewise, "Social suffering" takes in the human consequences of war, famine, depression, disease, torture—the whole assemblage of human problems that result from what political, economic, and institutional power does to people—and also human responses to social problems as they are influenced by those forms of power (Kleinman, 1997). Humans spend much of life suffering or trying to avoid suffering, yet there is little precision or consistency in the definition of 'suffering'. To rectify that, a classification scheme or taxonomy is outlined that distinguishes mental, physical, and social suffering, and then offers sub-categories. For example, depression, anxiety, grief, and existential suffering are all types of mental suffering. Suffering is defined as Distress resulting from threat or damage to one's body or self-identity. Next, to capture the principal, dominant cultural meanings of suffering, eight frames (essentially, major points of view) for suffering are summarized. These frames are suffering as punishment, suffering as reward, suffering as craving, suffering as sacrifice, suffering as natural destiny, suffering as man- ageable, relief of suffering as human purpose, and lastly, relief of suffering as progress in quality of life. Suffering and negative quality of life have a lot in common. Understanding perceptions of

peoples' desired relief of suffering requires that we distinguish their own suffering from suffering of others important to them. Thus, in measuring subjective quality of life, it may be necessary to distinguish a person's perception of their own quality of life from that of others who are important to them (Anderson, 2013).

Theory of Planned Behavior

The theory of planned behavior (abbreviated TPB) is a theory that links beliefs and behavior. It has been applied to studies of the relations among beliefs, attitudes, behavioral intentions and behaviors in various fields such as advertising, public relations, advertising campaigns and healthcare. The theory states that attitude toward behavior, subjective norms, and perceived behavioral control, together shape an individual's behavioral intentions and behaviors. It distinguishes between three types of beliefs - behavioral, normative, and control. The TPB is comprised of six constructs that collectively represent a person's actual control over the behavior.

1. Attitudes - This refers to the degree to which a person has a favorable or unfavorable evaluation of the behavior of interest. It entails a consideration of the outcomes of performing the behavior.

2. Behavioral intention - This refers to the motivational factors that influence a given behavior where the stronger the intention to perform the behavior, the more likely the behavior will be performed.

3. Subjective norms - This refers to the belief about whether most people approve or disapprove of the behavior. It relates to a person's beliefs about whether peers and people of importance to the person think he or she should engage in the behavior.

4. Social norms - This refers to the customary codes of behavior in a group or people or larger cultural context. Social norms are considered normative, or standard, in a group of people.

5. Perceived power - This refers to the perceived presence of factors that may facilitate or impede performance of a behavior. Perceived power contributes to a person's perceived behavioral control over each of those factors.

6. Perceived behavioral control - This refers to a person's perception of the ease or difficulty of performing the behavior of interest. Perceived behavioral

control varies across situations and actions, which results in a person having varying perceptions of behavioral control depending on the situation. This construct of the theory was added later, and created the shift from the Theory of Reasoned Action to the Theory of Planned Behavior.

The attitude toward behavior, subjective norms, and perceived behavioral control, together shape an individual's behavioral intentions and behaviors regarding dysmenorrhea.

2.3   Review of Previous Research Works

Primary dysmenorrhea is highly prevalent among adolescents. More than 50 percent of adolescent girls in various populations report dysmenorrheal which is severe in about 15 percent. Dysmenorrhea is a major cause of morbidity in adolescents leading to activity restriction and school absence (Davis, et al., 2011).

According to Klein. (1981), Dysmenorrhea is the leading cause of recurrent short-term school absenteeism among adolescent girls. Of 1,611 adolescents (59.7%) who report dysmenorrhea, (14%) frequently miss school because of cramps. Preparation for menarche, a psychologic variable, did not predict either dysmenorrhea or subsequent school absence. Socioeconomic status was positively correlated with dysmenorrhea although race was not. However, black students (23.6%) miss more school because of dysmenorrhea than white students (12.3%) even when socioeconomic status is held constant. Data in this study suggest that biologic variables play a substantial role in the pathogenesis of dysmenorrhea.

A cross-sectional study on 1295 adolescent girls (aged 13-19 years) from 16 public secondary schools in rural districts of Kelantan, Malaysia conducted between February 2009 and April 2009. Dysmenorrhoea was reported in 76.0% of the participants. Concentration at school (59.9%) and participation in social events (58.6%) have been most affected. Multivariate analysis shows that being in upper secondary level was the strongest predictor for poor concentration, absenteeism, and poor school grade due to dysmenorrhea. In spite of its high prevalence and enormous impact on their lives, 76.1% believed that dysmenorrhea is a normal partof the female menstrual cycle and only 14.8% sought medical treatment. The majority of

adolescents obtained information from their mothers (62.3%) and peers (52.9%) (LP W, 2011).

In a Cross-sectional study carried in urban academic medical center, New York, USA Adolescents with moderate and severe dysmenorrhea reported high morbidity. Girls used numerous non-pharmacologic remedies as well as medications for pain but infrequently accessed formal medical care. Dysmenorrhea was moderate in 42%, severe in 58%, associated with nausea in 55%, and vomiting in 24%. Of those attending school (n = 66), 46% reported missing one or more days monthly due to dysmenorrhea. Nearly all discussed their pain with someone; however, a minority sought formal medical care. All used non pharmacological remedies such as sleeping and heat application (Connell, et al., 2006).

A study on "Self-treatment patterns among adolescent girls with dysmenorrhea" healthy adolescents aged 19 years or younger (n=76) with moderate to severe primary dysmenorrhea were included. Adolescents' mean age was 16.8 years. Dysmenorrhea was moderate in (42%), severe in (58%), associated with nausea in (55%), and vomiting in (24%). Of those attending school (n=66), 46 percent reported missing one or more days monthly due to dysmenorrhea. Nearly all discussed their pain with someone; however, a minority sought formal medical care. All used non pharmacological remedies such as sleeping and heat application. Nearly all used at least one medication, (31%) reported using two, and (15%) used three medications (not concurrently). Many participants reported using medication at sub-therapeutic doses for pain. Adolescents with moderate and severe dysmenorrhea reported high morbidity. Girls used numerous non-pharmacologic remedies as well as medications for pain but infrequently accessed formal medical care. Medication dosing was often sub-therapeutic (Connell, et al., 2006).

The study "Assessing knowledge, attitude and behavior of dysmenorrhea among adolescent girls" was conducted on a small portion of the population of adolescent girls in Iran. In this study, the vast majority of students (98.5%) indicated that young girls should receive appropriate and sufficient information about menstruation and associated hygienic practices, and (61%) of them identified their mothers as the best source for such information. As traditionally, young girls usually propound their emotional and psychological problems with their mothers, one of the most useful

educational methods for young girls could be the improvement of their mothers' knowledge base, as well as, correcting their false attitudes and beliefs in this regard. On the other hand, the results of the recent studies showed the effectiveness of educating female students about these subjects at schools, as many young girls also identified their peers as the best source for sharing, and talking about their problems. Moreover, students spend most of their daily time at schools, and they are at appropriate ages to receive correct information, and to practice health taking behaviors. Thus, the conclusion that could be drawn from this study is the necessity of educating young girls about sufficient and correct nutrition, appropriate diet, personal hygienic observance, physical activity, exercise, and taking medication under a physician's supervision during their menstrual period. Furthermore, as it was reported by other studies, to decrease the severity of menstrual pain and to reduce the rate of absence from school, as well as to prevent the possibility of getting secondary dysmenorrhea, educating young girls in schools could be considered the most effective, most efficient, and most time saving method. Further studies may prove this prediction (Journal of International women's studies, 2002).

Primary dysmenorrhea is one of the most common complains and gynecological problem worldwide among young females. Findings claimed that exercise may positively affect this problem. Overalls, the results of this study indicated that participating in physical activity programs likely an approach to reduce the detrimental effect of primary dysmenorrhea symptoms in young females (Mahvash. et al., 2012).

The cross sectional study was conducted from Jan 2011 to May 2011 among 183 Adolescent girls (14-19years) in Schools and colleges Kadapa , Andhra Pradesh town using a semi-structured questionnaire. Out of 183 adolescent girls 119 (65%) are dysmennorhic, (68.4%) and (61.2%) are from the urban and rural areas respectively. Out of 81 adolescent girls with family history of dysmenorrhea 60 (74.1 %) adolescent girls are dysmennorhic. Sickness absenteeism is seen among (47.9%) dysmennorhic girls. Quality of life is significantly reduced among dysmennorhic girls. Almost (73.1%) of rural girls rely on self-help technique to manage the dysmenorrhea as compare to urban girls (55.2 %) (Kumbhar, 2011).

In a study of "Dysmenorrhea during menstruation in adolescent girls" in the higher secondary school of Gwalior on nine hundred and seventy adolescent girls of age 15 to 20 years, they found that the prevalence of dysmenorrhea among adolescent girls was to be 79.67 percent. Most of them, 37.96 percent suffered from dysmenorrhea severity. The three most common symptoms present on both days, that is, day before and first day of menstruation were lethargy and tiredness (first), depression (second) and inability in concentration to work (third),whereas the ranking of these symptoms on the day after the stoppage of menstruation showed depression as the first common symptoms. Negative correlation had found between dysmenorrhea and the general health status as measured by the body surface area (Agrawal. et al., 2010).

A descriptive cross-sectional study entitled "Hygiene, Health Problems and Socio-cultural practices: What School Girls Do During Menstruation" was carried out in 166 adolescent school girls aged 11-19 years studying at secondary level from 5 government schools of Kailali district using self-administered semi-structured questionnaire. The findings in the study states that the mean age at menarche was 12.94 years. More than one fourth of the respondents had known about menstruation before their menarche, the principle sources being friends and mothers. Nearly 5% of the respondents perceived it as disease and curse or sin. The most common health problem faced during menstruation was dysmenorrhea (Hamal and KC, 2014).

A descriptive study was done among sixty-one female adolescents of Shree Himali Secondary School, Panchkanya, Sunsari, where data were collected from the adolescents meeting the inclusion criteria. It was found that 36.1% correctly reported about menstruation where most common informant was mother (39.3%). Dysmenorrhoea was the commonest problem faced during menstruation (78.7%) followed by back pain and excessive blood loss (Sapkota. et al., 2013).

The Cross sectional study was done in 96 girls of two different school of Dharan of the age group ranging from 11- 17 years to find out the menstrual pattern, and awareness of the abnormalities in menstrual pattern. The median age of menarche was 12 years. Spasmodic dysmenorrhea was seen in 67.0 percent of the girls but the daily activity was hampered only in 20.0 percent. Out of the 96 students 73.0 percent were prepared psychologically beforehand. Very less students (8.0%) knew only very little about the abnormalities in menstruation, rest were ignorant about it (Sharma, 2003).

After reviewing several studies conducted on the knowledge and practice regarding dysmenorrhea, it is found that dysmenorrhea is a major cause of morbidity in adolescents leading to activity restriction and school absence and the majority of adolescents obtained information from their mothers and peers and girls used numerous non-pharmacologic remedies as well as medications for pain but infrequently accessed formal medical care.

From the above studies, it is known that the studies have been done without much sociological inputs in the context of menstruation and dysmenorrhea. There is study gap between regional and local level. Although the study has been conducted in regional level it has not been conducted in local level. It is not given high priority and often overlooked. So, the study about dysmenorrhea is must among adolescents in local level. Therefore, this study is being carried out.

2.4 Conceptual and Theoretical Framework of the Study

A theoretical structure of assumptions, factors that holds together the ideas comprising a broad concept of dysmenorrhea is as follow.

2.4.1 Conceptual Framework

Independent Variables   **Dependent Variables**

) Age

) Ethnicity

) Education

) Religion

) Socio-economic status

) Dietary habits

) Physical activity

) Hygiene and sanitation

) Source of information

) Knowledge regarding Dysmenorrhea

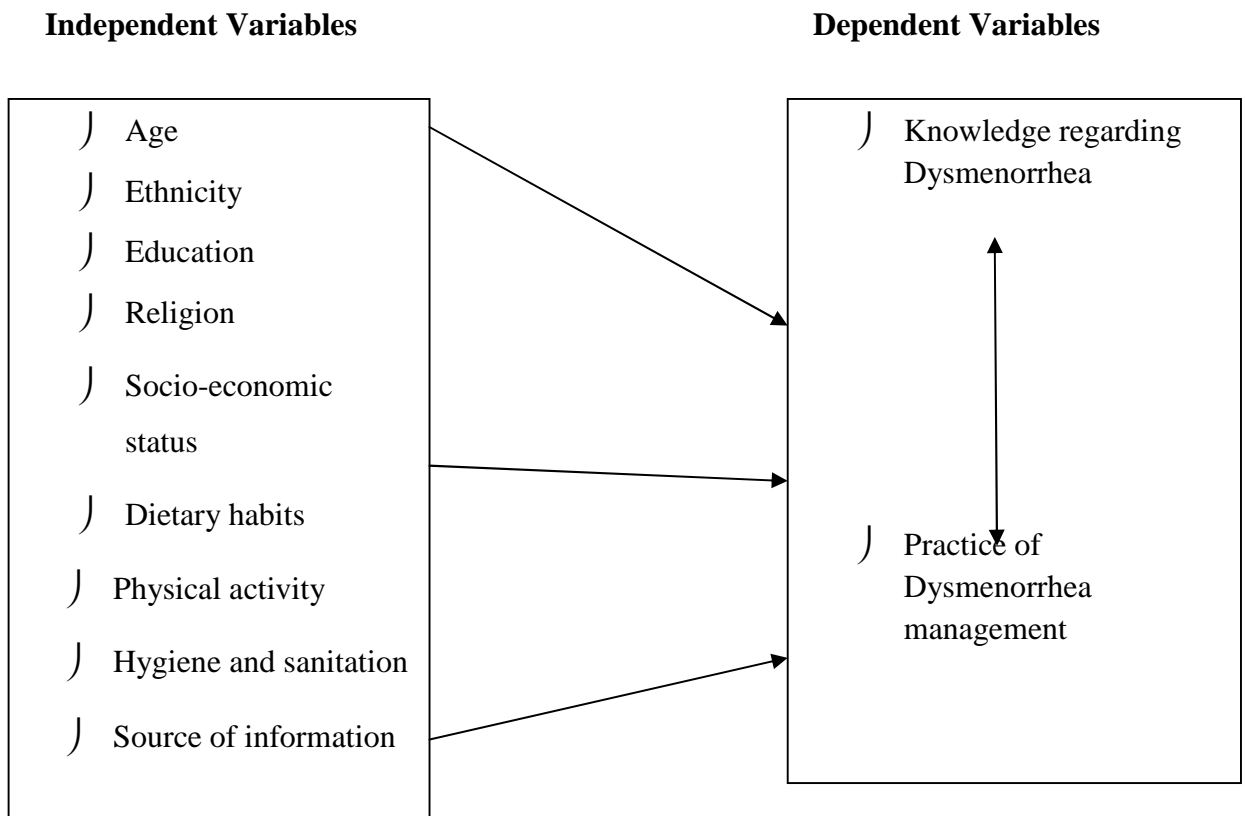) Practice of Dysmenorrhea management

Fig 2.2: Conceptual Framework

The conceptual framework for this study is based on the available literatures on knowledge and practice regarding Dysmenorrhea. This framework assumes that knowledge and practice regarding dysmenorrhea is influenced by various domains such as demographic and socioeconomic characteristics of respondents, social and cultural variables related with dysmenorrhea.

Demographic and socioeconomic variables such as age, ethnicity, religion, educational status will be studied first to find out the characteristics of the respondents. Similarly, the study intends to find out the social and cultural factors which are found to be associated with knowledge and practice regarding dysmenorrhea such as source of information, dietary habits, physical activity, hygiene and sanitation.

2.4.2 Theoretical Framework

Theory of social suffering
-Adolescent's response to social restriction

knowledge and management practice about dysmenorrhea

Health belief model
-Perceived Severity
-Perceived Susceptibility
-Perceived Benefits
-Perceived Barriers
-Modifying Variables
-Cues to Action

Theory of planned behavior
-Attitudes
-Behavioral intention
-Subjective norms
-Social norms
-Perceived power
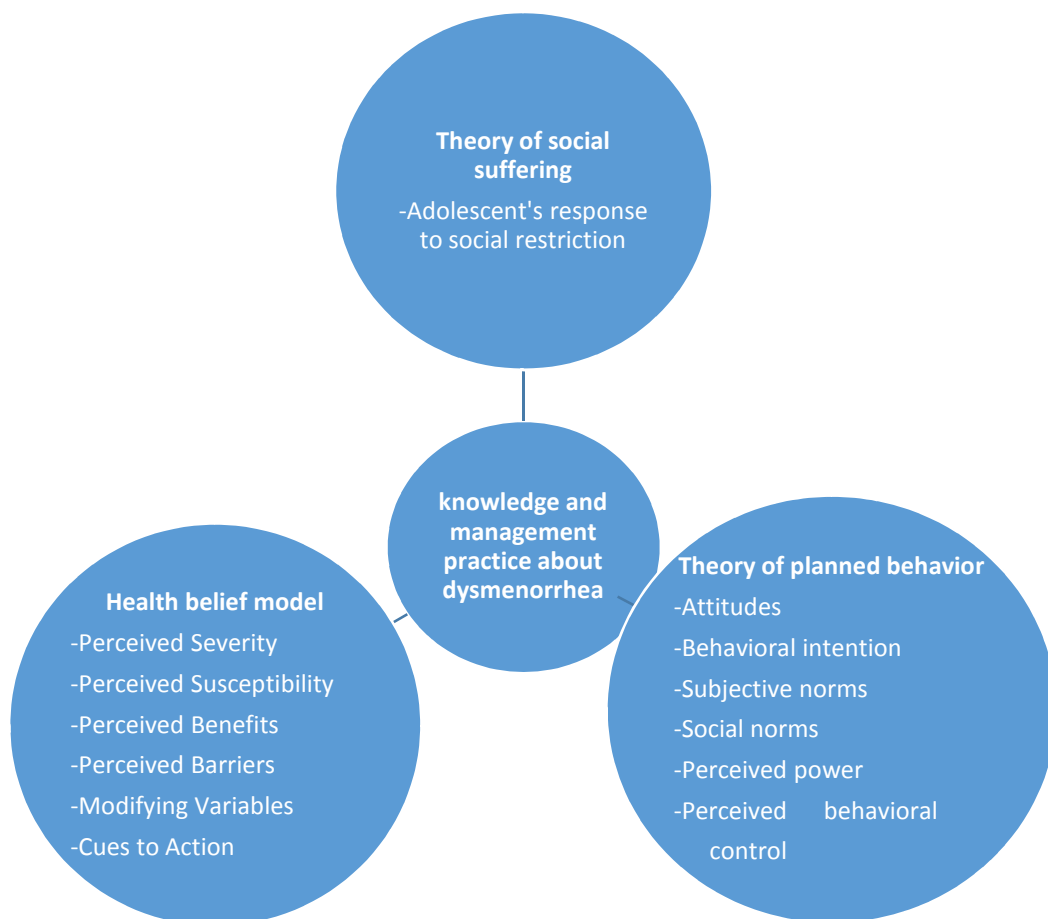-Perceived behavioral control

Fig 2.3: Theoretical Framework

Different theories have different viewpoint regarding Dysmenorrhea. Hence, the aforementioned theories have explained associated factors, perception and attitude about dysmenorrhea.

CHAPTER-III

RESEARCH METHODOLOGY

This chapter presents the research methodology that is used to collect and analyze qualitative as well as quantitative data for the study. The chapter is further sub divided into many sub-titles such as Research design Universe and Sampling, Nature and Sources of data, Pretesting, Data collection technique Data collection tool and Data Processing and Analysis.

3.1   Rationale of Selection of Study Area

Dysmenorrhea is a common issues related to menstrual health as it is one common disorder among menstrual disorders. Very few studies have been conducted in field of menstrual health including dysmenorrhea in adolescence in Nepalese context. Adolescent girls, almost always, silently suffer the pain by dysmenorrhea and the discomfort associated with it due to lack of knowledge about reproductive health and probably that this also affects their academic performance. As it is an important topic to be studied and the researcher is interested in this topic, researcher has chosen this topic as Research study. This study was carried out in Barahi Higher Secondary School, Pokhara as students from different ethnicity, socio economic status, religion and from different background study here which is believed to be fruitful for this study.

3.2   Research Design

The design of the research study was cross- sectional descriptive and exploratory. Variables such as age, education, ethnicity, religion, source of income were described through cross sectional descriptive design and the information which could not be gained easily such as knowledge, practice about dysmenorrhea was explored through case study

3.3   Nature and Sources of Data

Most of the information was collected in quantitative form and few was collected in the qualitative form to support the information from quantitative data.

The study was based solely upon the primary data collected by the researcher to provide the possible clear picture on study objectives. The primary data was collected from the field using interview schedule. The adolescent girl students of age 13-19 years were the only source of primary data.

3.4   Universe and Sampling

The study population of the research were adolescent girl students who are studying in the class 7, 8, 9 and 10 in Barahi Higher Secondary School, Pokhara. The total number of adolescent female students of class 7 to 10 was the universe of this study. There were 130 female students studying in class 7 to 10. Purposive sampling technique was used for the study. The total number of female students of class 7 to 10 present on the day of data collection were the sample for this study. The census of female students (who attained menarche) from class 7 to 10 was taken for the study. All together 104 students were involved in this study.

3.5   Reliability and Validity

- Tool was pre-tested in a similar setting and necessary corrections were made.
- The collected data was checked for errors and omission on the same day and the consistency of data was maintained.
- The collected data was back checked by the supervisor/teacher to ensure the reliability of data.
- Related literature was reviewed.

3.6   Pretesting of the Tools

Pretesting was conducted in at least 10% of sample size in similar characterized groups/area. Pretesting was conducted at Dharmasthali Lower Secondary School, Parshyang-5, Pokhara. Ten students from grade VIII who attained menarche were selected for interview.

After analyzing the response slight modification of questions were made because some questions were not clear to the respondents.

3.7 Data Collection Technique

In this study, data was collected by interview schedule and through case study. An interview schedule written in the Nepali language was used to collect the general information. For the study purpose, the raw data were collected interacting with the respondents. A tireless effort was done to extract more and more facts from the respondents assuring them about the confidentiality.

3.8 Data Collection Tool

Interview guideline was developed to interview the students.

3.9 Ethical Considerations

The following ethical considerations were taken for this study:

- Formal permission was taken from Prithvi Narayan Campus, Department of Sociology;

- Permission was taken from principal of Barahi higher secondary school;

- Informed consent was taken from the respondents prior to distribution of questionnaire;

- The collected information was completely confidential and the name of the respondents was not associated with their answers;

- The data was not personalized and confidentiality of the data was maintained and used for the purpose of this study only;

- Respondents were not influenced by any means to participate in the survey.

3.10 Research Criteria

3.10.1 Inclusion Criteria:
- Girl student of Age group 12-19 years.
- The adolescent girls should attain menarche.
- The adolescent students should be studying in Barahi Higher Secondary School.

3.10.2 Exclusion Criteria:

-) The adolescence girls who have no menarche.

-) The participant who were unwilling to participate in this study

-) The students who were absent at the time of data collection

3.11 Method of Data Presentation and Analysis

This study is designed and modulated as a descriptive study based on qualitative and quantitative data originating from primary source. All the data and information collected from the field through questionnaires were systematically arranged, summarized, processed and presented in tabular as well as diagrammatical forms such as tables, graphs and pie chart. Data entry and analysis was carried out through SPSS. The processed data and information with analysis is presented and described in a separate chapter.

CHAPTER-IV

INTRODUCTION OF THE STUDY SITE

This chapter introduces about the study area Kaski district particularly Malepatan and the inhabitants. In addition, physical and cultural setting of this place have been discussed.

Introduction of the Study Area

4.1   Profile of Kaski District

Kaski District, a part of Gandaki Zone, is one of the seventy-five districts of Nepal, a landlocked country of SouthAsia. The name is disambiguated from Kaskikot, the ancient Kaski Kingdom. It is located in the central part of Nepal.

The district, with Pokhara as its district headquarters, covers an area of 2,017 km² and had a population in 2001 of 380,527.The district covers parts of the Annapurna mountain range, and the picturesque scene of the mountains can be observed from most parts of the district. It is one of the best tourist destinations of Nepal. The district is full of rivers such as Seti Gandaki, Modi and Madi along with other rivulets. The district headquarters Pokhara lies about 750 m above the sea level and is one of the best tourism destination in the World. The district is famous for Himalayan range with about 11 Himalayas with height greater than 7000 m. The famous Peaks include Machhapuchhre (Virgin Peak - 6993m). The beautiful scenery of northern mountains, gorge of Seti River, David Falls, natural caves, Fewa Lake, Begnas Lake and Rupa Lake are important natural resources of this district with great tourism values.

Politically, Kaski district is divided into one sub- metropolis city, one municipality, four election zones and forty three village development committees. There are two cities in Pokhara, Pokhara sub-metropolitan city and Lekhnath municipality. Due to mild and healthy climate and scenic panoramic beauty of this district, Pokhara is growing as a centre for education, culture and tourism.

Based on the census conducted in 2001, the literacy rate of this district is 72 percent which scales 83 percent male literacy rate and 62 percent female literacy rate (CBS, 2001).

4.2   Cultural Settings

The study area of Malepatan has a mixed community. The population comprises of casts like- Brahmin, Chhetri, Gurung, Newar, Dalit etc. the above population belongs to several religions like Hinduism, Buddhism, Muslim and Christianity. There are different temples, Church for the people to get involved in religious activities.

4.3   Background of Barahi Higher Secondary School

Barahi Higher Secondary School is situated in Malepatan-5, Pokhara. It was established on 2014 B.S. There are twenty one teaching staffs and four non-teaching staffs working in this school. At present there are 430 students studying in this school.

This school has started offering +2 level education in science, management, education and humanities stream. The greatest challenge to this school now is to provide healthy and meaningful quality education like the neighboring private schools.

In the recent decades, the establishment of private boarding schools in this region has led to considerably less pressure of the students in public secondary school. Students from a bit underprivileged economic family back ground are found studying in public schools. In another word, public schools are destination for the students representing the underprivileged family background.

CHAPTER-V
BACKGROUND CHARACTERISTICS
OF HOUSEHOLD POPULATION AND RESPONDENTS

This chapter presents the background characteristics of female adolescents and their household characteristics under study. The characteristic variables includes the different factors like age, class standard, religion, ethnicity, family types, father's educational status, mother's educational status, father's occupation, mother's occupation and source of income, which has direct and indirect implications for several issues related to dysmenorrhea. The findings of background characteristics of female adolescents are computed, analyzed and interpreted by simple table, cross table, pie chart and bar chart.

5.1 Background Characteristics of the Respondents

5.1.1 Age

Age structure is one of the imperative demographic data in examining population characteristic. In critical, age stratification refers to the hierarchical ranking of people into age groups within a society. Aging (often spelt as ageing) is both a biological and sociological process where in human beings experience and accomplish stages of biological and social maturation (Settersten & Richard, 2011).

Table 5.1: Distribution of the Respondents by Age

Age	Number of Respondents (n=104)	Percentage
12-14	37	35.5
15-17	65	62.5
18-19	2	2.0
Total	**104**	**100.0**

Source: Field Survey, 2015

Table 5.1 shows that the age of respondents varied from 12 to 19 years. Most of the respondents 65(62.5%) were of age 15-17 years, followed by 37(35.5%) of age 12-14 years and 2(2.0%) were of age 18-19 years.

5.1.2 Education

Education is a process of cognitive cartography, mapping the experience and finding a person's regular work or profession, job or principal activity. It is imparting of knowledge, skill and information. Education helps people to perceive anything accurately, think clearly and set effectively to achieve the preset goal and aspiration of life. Education is one of the most important means of empowering females with the knowledge, skill and self-confidence necessary to participate fully in the developmental process, also helps in the holistic empowerment of women. In this study, education means the educational level of the respondents at the time of interview.

Table 5.2: Distribution of Respondents by their level of education

Level of Education	Number of Respondents (n=104)	Percentage
Class 7	7	6.7
Class 8	16	15.4
Class 9	39	37.5
Class 10	42	40.4
Total	**104**	**100.0**

Source: Field Survey, 2015

Table 4.2 illustrates majority of the respondents 40.4 percent studied in class 10 followed by 37.5 percent in class 9, 15.4 percent in class 8 and least 6.7 percent in class 7.

5.1.3 Religion

A religion is a unified system of beliefs and practices relative to sacred things, that is to say, things set apart and forbidden-beliefs and practices which unite into one single moral community, all those who adhere to them. It is a system of beliefs and practice by means of which a group of people struggle with the ultimate problems of human life (Yinger, 2005). Sociology of religion is the study of the beliefs, practices and organizational forms of religion using the tools and methods of the discipline of sociology. The respondents have been categorized into four main religions-Hindu, Buddhist, Christian and Muslim as depicted in table.

Table 5.3: Distribution of the Respondents by Religion

Religion	Number of Respondents (n=104)	Percentage
Hindu	90	86.5
Buddhist	10	9.6
Christian	3	2.9
Muslim	1	1.0
Total	**104**	**100.0**

Source: Field Survey, 2015

Table 5.3 elucidates that, among 104 respondents, 86.5 percent were from Hindu religion, 9.6 percent were from Buddhist religion, 2.9 percent were from Christian religion and 1.0 percent were from Muslim religion respectively. Majority of the Respondents were from Hindu religion.

5.1.4 Caste/Ethnicity

An ethnic group or ethnicity is a socially-defined category of people who identify with each other based on common ancestral, social, cultural or national experience. Membership of an ethnic group tends to be defined by a shared cultural heritage, ancestry, myth of origins, history, homeland, language (dialect), or even ideology, and manifests itself through symbolic systems such as religion, mythology and ritual, cuisine, dressing style, physical appearance, etc. (Social Constructionism, 2009).

Caste and ethnicity is the identification of the person. This makes one group distinct from other. Researcher collected data of female adolescents based on caste/ethnicity categories.

Table 5.4: Distribution of the Respondents by Caste/Ethnicity

Caste/Ethnicity	Number of Respondents(n=104)	Percentage
Brahmin/Chettri	55	52.9
Janajati	31	29.8
Dalit	18	17.3
Total	**104**	**100.0**

Source: Field Survey, 2015

Table 5.4 illustrates that majority of the respondents 55(52.9%) were from Brahmin/Chhetri ethnicity followed by 31(29.8%) Janajati and 18(17.3%) were Dalits by their ethnicity.

5.2   Household Characteristics of the Respondents

5.2.1 Type of Family

Family is defined as a group consisting of parents and their children living together as a unit. On the basis of size or structure and the depth of generations family is classified into two main types: 1) Nuclear or the single unit family 2) Joint family. Family type may be associated with differences in resources such as parental time, supervision, income, wealth, occupation or social capital. Improper guidance to child, inadequate educational outcomes and inadequate income level in the family corresponds to any level of work what they found beforehand (Coleman, 1988). Table 5.5 depicts the distribution of respondents by types of family.

Table 5.5: Distribution of the Respondents by Types of Family

Types of Family	Number of Respondents(n=104)	Percentage
Nuclear	80	76.9
Joint	24	23.1
Total	**104**	**100.0**

Source: Field Survey, 2015

Table 5.5 depicts that 76.9 percent of the respondents belonged to nuclear family and 23.1 percent belonged to joint family. Majority of the respondents were from nuclear family.

5.2.2 Educational status of Mother

Education is a process of cognitive cartography, mapping the experience and finding a person's regular work or profession, job or principal activity. It is imparting of knowledge, skill and information. Education helps people to perceive anything accurately, think clearly and set effectively to achieve the preset goal and aspiration of life. Education of parents seem to affect the knowledge and perception of their

children towards anything. The following table shows the educational status of respondent's mother.

Table 5.6: Literacy status of Respondent's Mother

Educational status	Frequency		Percentage
Literate	Formal - 74		87.5
	Informal - 17		
Illiterate	13		12.5
Total	104		100.0

Source: Field Survey, 2015

Education levels of the respondents were categorized into illiterate one who cannot read and write, literate one who can read and write. Again, the literate respondents were categorized into formal that had the educational opportunity of the formal schooling and informal who had not the opportunity of formal schooling; they simply read and write without going to school. Similarly, the formal education was categorized into primary, lower secondary, secondary and SLC, intermediate level, bachelor level, master and above. Majority of the respondents 87.5 percent were literate and 12.5 percent were illiterate.

Table 5.7: Distribution of the Respondent's Mothers by Level of Formal Education

Formal Education	Number of Respondent(n=74)	Percentage
Primary	32	43.2
Lower Secondary	21	28.4
Secondary	11	14.9
Intermediate	9	12.2
Bachelor	1	1.4
Total	**74**	**100.0**

Source: Field Survey, 2015

Among literate mothers, majority of them had received formal education 74(71.2%). Among 84 formal educated mothers, most of them 32 (43.2%) had received Primary level education followed by Lower Secondary level education 21(28.4%), 11(14.9%) had got Secondary level education, 9(12.2%) had got Intermediate level education and

only 1(1.4%) had got bachelor level of education. This finding reveals that higher the education level, lower is the number of respondent's mother.

5.2.3 Occupation of Father

Occupation is defined as a person's usual or principal work or business, especially as a means of earning a living. It is based on the person's socio-economic background, their educational status and mostly on their interest. The occupational structure of a society is the mix of different types of occupations found there. It also describes the distribution of people among those occupations, which gives some sense of which types of work predominate a society. In this study, the type of occupation is categorized into agriculture, services, business, daily wages and abroad services.

Table 5.8: Occupation of the Respondent's Father

Occupation	Frequency	Percentage
Service	38	36.5
Agriculture	19	18.3
Daily wages	15	14.4
Abroad	15	14.4
Business	14	13.5
Others	3	2.9
Total	**104**	**100.0**

Source: Field Survey, 2015

Out of 104 respondents' fathers, majority 36.5 percent were involved in service followed by 18.3 percent in agriculture, 14.4 percent in daily wages and abroad respectively, 13.5 percent in business and 2.9 percent of the respondents' father were engaged in other occupation such as tailor, tourist guide etc. Agriculture, business, service, daily wage and abroad service were the major occupation of the respondents' fathers.

5.2.4 Occupation of the Respondent's Mother

The occupation of the mother also affects in her children's knowledge and attitude. In this study, occupation refers to which type of work and way of earning of respondent's mother.

Table 5.9: Occupation of the Respondent's mother

Occupation	Frequency	Percentage
Agriculture	30	28.8
Housewife	27	26.0
Business	19	18.3
Service	16	15.4
Daily wages	11	10.6
Abroad	1	1.0
Total	**104**	**100.0**

Source: Field Survey, 2015

Table 5.9 depicts the occupation of the respondent's mother which shows that 28.8 percent of the respondent's mother were involved in agriculture followed by 26.0 percent housewife, 18.3 percent in business, 15.4 percent in service, 10.6 percent were engaged in daily wages and least 1.0 percent had gone to abroad .

5.2.5 Main Source of Income

Table 5.10: Main Source of Income

Main Source of Income	Frequency	Percentage
Agriculture	22	21.2
Job	37	35.6
Business	17	16.3
Daily Wages	15	14.4
Abroad	13	12.5
Total	**104**	**100.0**

Source: Field Survey, 2015

Table 5.10 depicts that majority of the respondent's family 37(35.6%) had job as their main source of income, followed by agriculture 22(21.2%), business 17(16.3%), daily wages 15(14.4%) and abroad 13(12.5%). The table shows majority of the respondent's parents are engaged in job while least have gone to abroad for their earnings.

CHAPTER-VI
KNOWLEDGE REGARDING DYSMENORRHOEA
AMONG ADOLESCENT GIRLS

6.1   Age at Menarche

Menarche is the first menstrual cycle, or first menstrual bleeding, in female humans. From both social and medical perspectives, it is often considered the central event of female puberty, as it signals the possibility of fertility. Girls experience menarche at different ages. The timing of menarche is influenced by female biology, as well as genetic and environmental factors, especially nutritional factors. The average age of menarche has declined over the last century, but the magnitude of the decline and the factors responsible remain subjects of contention. The worldwide average age of menarche is very difficult to estimate accurately, and it varies significantly by geographical region, race, ethnicity and other characteristics.

Table 6.1: Distribution of the Respondents by their Age of Menarche

Age of menarche	Number of Respondents(n=104)	Percentage
10	1	1.0
11	3	2.9
12	39	37.5
13	42	40.4
14	17	16.3
15	2	1.9
Total	**104**	**100**

Source: Field Survey, 2015

The girls have had their menarche from 10 years of age to 15 years of age. The most frequent occurring age of menarche was 13 (40.4%) followed by 12 (37.5%), 14(16.3%), 11(2.9%), 15(1.9%) and 10(1%).

6.2   Separation during First Menstruation

In Nepal, menstrual taboo is strictly practicing by 58 % population across culture as mentioned in CBS, 2011. As guided by Hinduism, women and girls considered *Sudra* and menstruation is the result of sin. Menstrual taboo is practicing among Brahmin, Chhetri and dalit (so called untouchable) communities thought the intensity and gravity varies from place to place. Many culture practice the separation of adolescent girl from their family and house during their first menstruation.

Table 6.2: Distribution of the Respondents by Separation during their First menstruation

Separation	Number of respondents(n=104)	Percentage
No	37	35.6
Yes	67	64.4
Neighbor's house	16	15.5
Relative's house	26	25.2
Separate room of house	25	24.0
Total	**104**	**100.0**

Source: Field Survey, 2015

Table 6.2 shows that most of the respondents were kept separated from their family during their first menstruation which comprised of 64.4 percent and 35.6 percent of the respondents were not kept separated during their first menstruation. Among them 15.5 percent were kept in neighbor's house, 25.2 percent were kept in relative's house and 24 percent were kept in separate room of their own house.

6.3   Knowledge about menstruation

Menstruation is still the taboo in Nepalese society. Most adolescent girls hesitate to discuss about menstruation. So the researcher wanted to study whether the respondents had heard about menstruation before menarche or not.
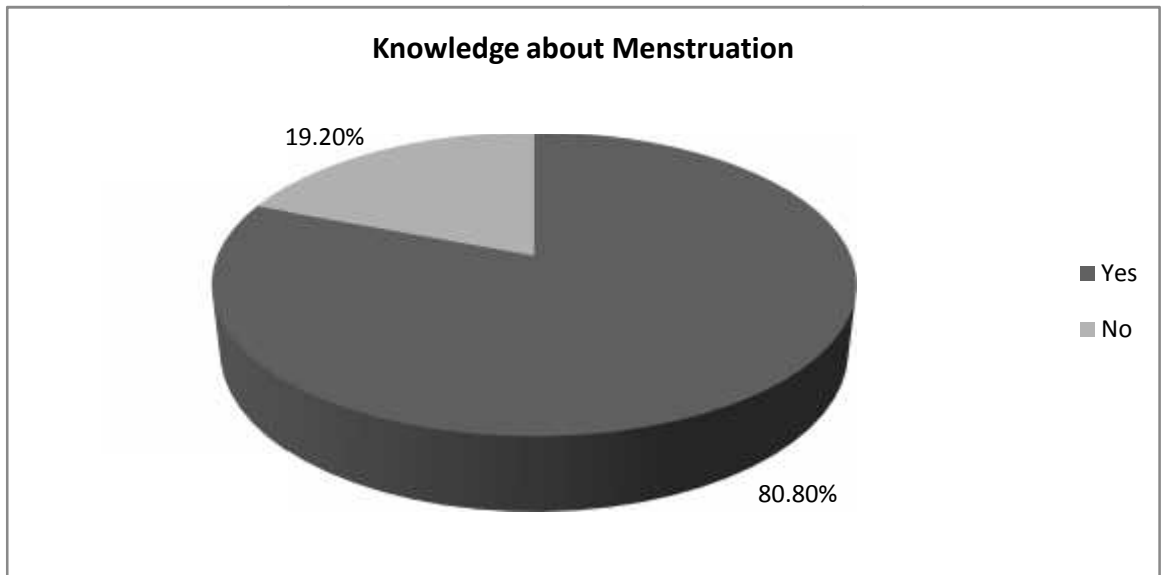
Figure 6.1: Distribution of the Respondents by Knowledge about Menstruation before Menarche (n=104)

Figure 6.1 shows that most of the respondents 80.8 percent had heard about menstruation before their menarche and 19.2 percent had not heard about it.

6.4 Source of Information regarding Menstruation

This study shows that 80.8 percent had heard about menstruation before menarche. The source of information are mother, sister, peers, relatives, media and books. School health education, peer sharing and discussion with family members play important role in providing information regarding menstruation.

Table 6.3 Distribution of the Respondents by Source of information regarding menstruation

Source of Information	Number of respondents(n=84)	Percentage
Mother	39	46.4
Sister	20	23.8
Peer/Friends	20	23.8
Other relatives	3	3.6
Media and books	2	2.4
Total	**84**	**100.0**

Source: Field Survey, 2015

The source of information of 84 respondents who had heard about menstruation before menarche were; mother 46.4 percent, sister 23.8 percent, friends 23.8 percent, others relatives (i.e. cousin sisters, aunt and sister in laws) 3.6 percent and Media and course books 2.4 percent respectively. It means majority of the respondents knew about menstruation from their mother.

6.5   Knowledge about Dysmenorrhoea

Dysmenorrhoea means having painful menstruation. Most of the girls suffer from dysmenorrhea. Lower abdominal pain, cramping of leg, backache, and diarrhea are sign and symptoms of dysmenorrhea.
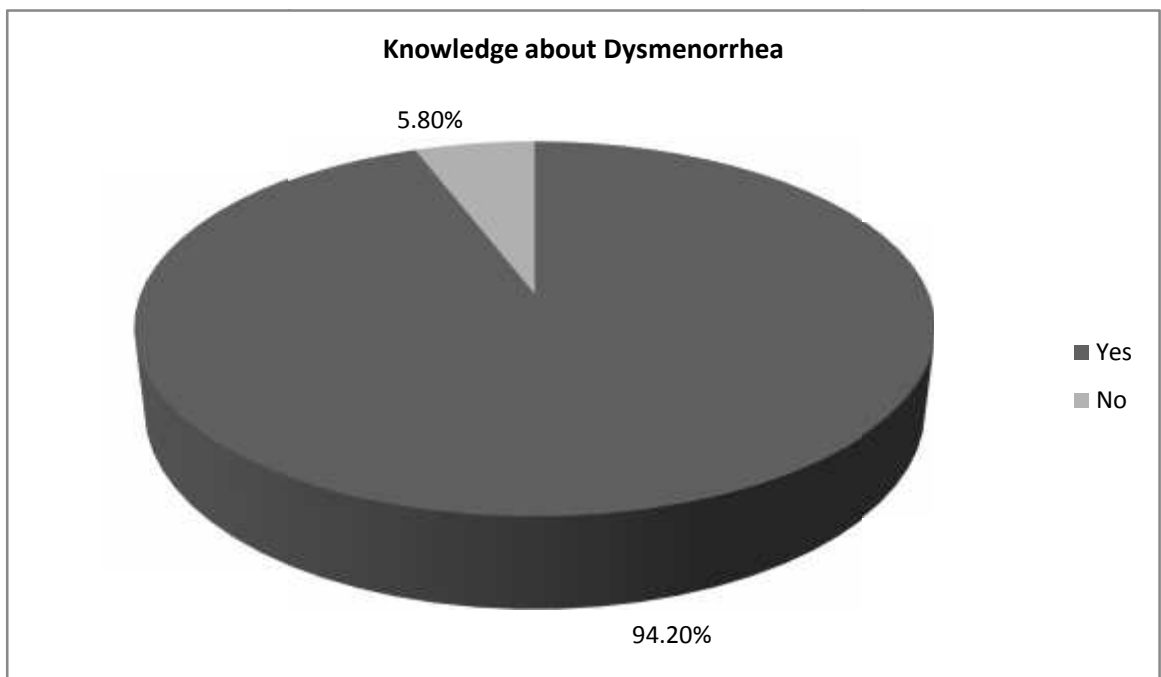
Figure 6.2: Distribution of the Respondents by Knowledge about Dysmenorrhea (n=104)

Figure 6.2 shows that most of the respondents 94.2 percent had known about dysmenorrhea and 5.8 percent were unknown about dysmenorrhea.

6.6   Source of information regarding Dysmenorrhea

Out of 104 respondents, 94.2 percent had known about dysmenorrhea. The source of information in this study are categorized as mother, sister peer/friends, other relatives and media.

Table 6.4: Distribution of the Respondents by Source of information regarding Dysmenorrhea

Source of Information	Number of Respondents(n=98)	Percentage
Mother	32	32.7
Peer/Friends	32	32.7
Sister	23	23.5
Media	5	5.1
Other relatives	5	6.1
Total	**98**	**100.0**

Source: Field Survey, 2015

Majority of respondents 98 (94.2%) had knowledge and 6 (5.8%) had no knowledge on dysmenorrhoea. The knowledge was gained from their mother 32 (32.7%) and friends 32(32.7%) followed by sisters 23(23.5%) similarly by others relatives (cousin sisters, aunt) 6(6.1%) and Media (magazine, course books, televisions) 5(5.1%).

6.7   Knowledge on Causes of dysmenorrhea

Dysmennorrhoea is painful menses in females with normal pelvic anatomy, usually beginning during adolescence. Many factors are related to this disorder. These factors include a younger age, low Body Mass Inderx (BMI), smoking, early menarche, prolonged or aberrant menstrual flow, premenstrual somatic complaints, pelvic infections, previous sterilization, somatization, psychological disturbance, genetic influence, and a history of sexual assault influencing the prevalence and severity of dysmenorrheal (Dangal G, 2004).

Table 6.5: Distribution of the Respondents by Knowledge on Causes of dysmenorrhea

Knowledge on causes of dysmenorrhea	Number of respondents	Percentage
Yes	41	39.4
No	63	60.6
Total	**104**	**100.0**
Causes of Dysmenorrhea		
Hormonal	29	70.7
Early menarche	8	19.5
Heredity	3	7.3
Stress	1	2.4
Total	**41**	**100.0**

Source: Field Survey, 2015

Table 6.5 explains that majority of the respondents 63 (60.6%) were unaware whereas remaining 41(39.4%) were aware about the causes of dysmenorrhea. Among those the highest 29(70.7%) respondents claimed Hormone, 8 (19.5%) as Early menarche, 3(7.3%) said Heredity and least 1 (2.4%) claimed Stress to be the causes for dysmenorrhea.

Case study-1

I am a 16 years old girl studying in class 10. My hometown is in Dhading but I and my family live in rented house of Parsyang, Pokhara. My father works in abroad (Qatar) and my mother is a housewife. I have one older brother who studies in class 12. I firstly heard about menstruation from my mother and heard about dysmenorrhea from my friends. Though I do not have any pain during menstruation, I think dysmenorrhea occurs as a disease condition. I don't know the cause behind it. From the sharing of my friends, I think lower abdomen pain, back ache, cramping of leg etc. are the common symptoms of dysmenorrhea and if treated it will be cured.

I do not practice any social restriction during menstruation except visiting Temples and worshipping God. But I bath daily during menstruation as I myself feel unhygienic those days. I use sanitary pad as absorbent and change every six hourly. I

feel it would be better for adolescents like us if dysmenorrhea and its management are included in our course book.

6.8   Perception about Dysmenorrhoea

Respondent's perception about Dysmenorrhoea

23.10%

76.90%

■ Natural process
■ Disease
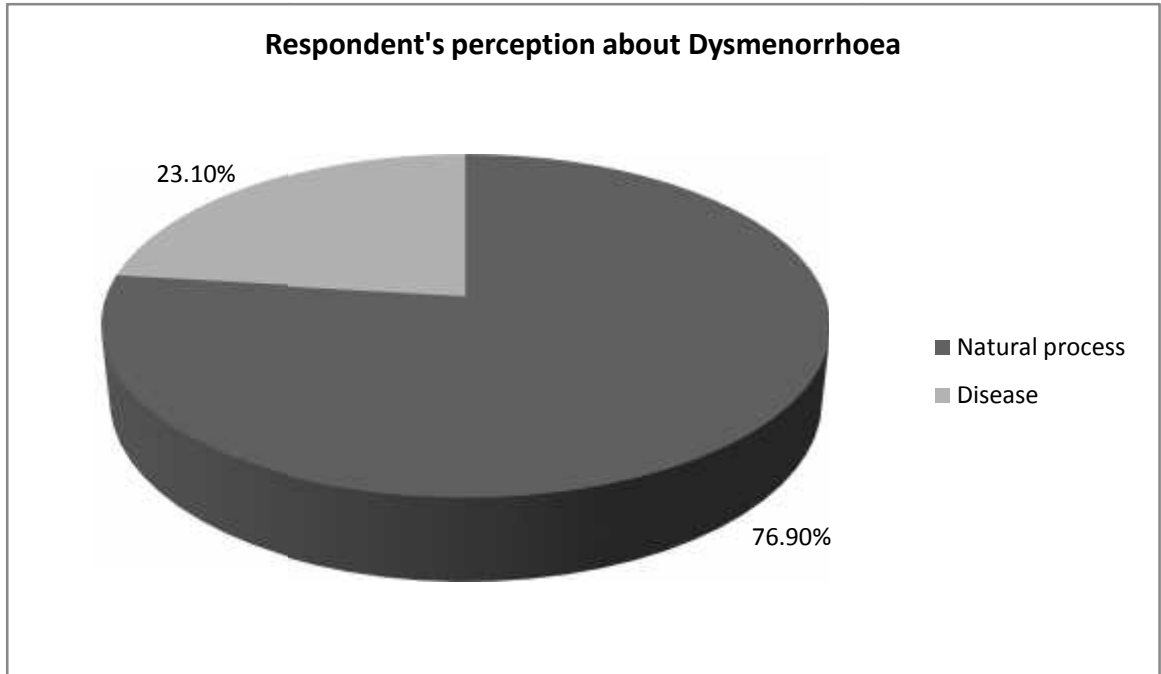
Figure 6.3: Distribution of Respondents by their perception about Dysmenorrhoea

The diagram depicts that the majority of the respondents 80(76.9%) perceive dysmenorrhoea as the natural process and 24(23.1%) of them perceive as disease.

6.9   Knowledge on Prevention of Dysmenorrhoea

There are no specific preventive measures for dysmenorrhea. Avoiding sexually transmitted diseases will decrease disease-associated dysmenorrhea. Rest when appropriate, avoiding foods and items that contain caffeine, nicotine or alcohol and massaging the lower back and abdomen can also help relieve cramps and pains.

Table 6.6: Distribution of the Respondents by knowledge on prevention of Dysmenorrhoea

Can dysmenorrhea be prevented?	Number of respondents	Percentage	Ways to prevent dysmenorrhoea	Number of respondents	Percentage
Yes	56	52.9	Treatment	29	51.8
No	12	11.5	Rest	12	21.4
Don't know	36	35.6	Nutritional food	8	14.3
Total	**104**	**100.0**	Physical exercise	7	12.5
			Total	**56**	**100.0**

Source: Field Survey, 2015

Table 6.6 shows that majority of the respondent 56(52.9%) know that dysmenorrhea is preventable, 36(35.6%) don't know if dysmenorrhea is preventable and least 12(11.5%) reported dysmenorrhea to be non-preventable. As per the respondent answers, Treatment 29(51.8%), Rest 12(21.4%), Nutritional food 8(14.3%), and least 7(12.5%) claimed Physical exercise to be the ways for preventing dysmenorrhea.

6.10 Knowledge on Problems of Dysmenorrhoea

Dysmenorrhea is defined as a medical condition that involves pain or discomfort during the menstruation process, often simply referred to as menstrual pain. This condition can cause sharp, dull, burning, shooting or nauseating pain or other types of general discomfort. While it is a generally normal condition, symptoms can sometimes be excruciating. Sometimes, the side-effects of dysmenorrhea can be augmented by an underlying condition that further irritates the natural process.

Table 6.7: Distribution of the Respondents by Knowledge on problems of Dysmenorrhoea

Problems due to dysmenorrhoea	Frequency	Percentage
Pain in lower abdomen	85	81.7
Back pain	59	56.7
Weakness	48	46.2
Excessive bleeding	22	21.2
Dizziness	18	17.3
Total	**232**	**223.1**

*multi response

Source: Field Survey, 2015

Table above mention about the knowledge of respondent on problems and symptoms during dysmenorrhoea .Majority of the respondent 85 (81.7%) felt the problem of pain in lower abdomen followed by back pain 59 (56.7%), weakness 48 (46.2%), excessive bleeding 22 (21.2%) and dizziness 18 (17.3%) respectively.

6.11   Knowledge on Symptoms of Dysmenorrhoea

The main symptom of dysmenorrhea is pain.The pain from menstrual cramps can range from mild to severe and can involve the lower belly, back, or thighs. Other associated symptoms are headaches, nausea, dizziness or fainting, or diarrhea or constipation with cramps.

Table 6.8: Distribution of the Respondents by Knowledge on Symptoms of Dysmenorrhoea

Symptoms of dysmenorrhea	Frequency	Percentage
Feeling of heaviness in lower abdomen	76	73.1
Tiredness	47	45.2
Inability to concentrate in work	41	39.4
Loss of appetite	39	37.5
Sleepless	23	22.1
Headache	19	18.3
Depressed	17	16.3
Nervousness	17	16.3
Irritability	16	15.4
Vomiting	10	9.6
Diarrhea	5	4.8
Total	**310**	**298**

*Multiresponse

Source: Field Survey, 2015

The most common symptoms for dysmenorrhea was Feeling of heaviness in lower abdomen as responded by 76(73.1%) of respondents and other symptoms were Tiredness 47(45.2%), Inability to concentrate in work41(39.4%), Loss of appetite 39(37.5%), Sleepless 23(22.1%), Headache 19(18.3%), Depressed 17(16.3%), Nervousness 17(16.3%), Irritability 16(15.4%), Vomiting 10(9.6%), and Diarrhea 5(4.8%)respectively.

6.12 Knowledge about Dysmenorrhea

Table 6.9: Distribution of Respondents according to Knowledge about Dysmenorrhea

Knowledge about Dysmenorrhea	Number of the respondents	Percentage
Good	51	49.0
Fair	33	31.7
Poor	20	19.2
Total	**104**	**100.0**

Source: Field Survey, 2015

Table 6.9 shows that majority of the respondents 51(49.0%) had good knowledge, 33(31.7%) had fair knowledge and 20(19.2%) had poor knowledge about dysmenorrhea.

CHAPTER-VII

PRACTICE REGARDING DYSMENORRHOEA
AMONG ADOLESCENT GIRLS

Menstruation and its practices are still clouded by taboos and socio-cultural restrictions resulting in adolescent girls remaining ignorant of the scientific facts and hygienic health practices, which sometimes result into adverse health outcomes Hygiene related practices of women during menstruation are of considerable importance, as it has a health impact in terms of increased vulnerability to reproductive tract infections. This chapter deals with the practice regarding dysmenorrhea among adolescent girls.

7.1   Prevalence of Dysmenorrhoea

Prevalence of Dysmenorrhoea

24.04%

75.96%
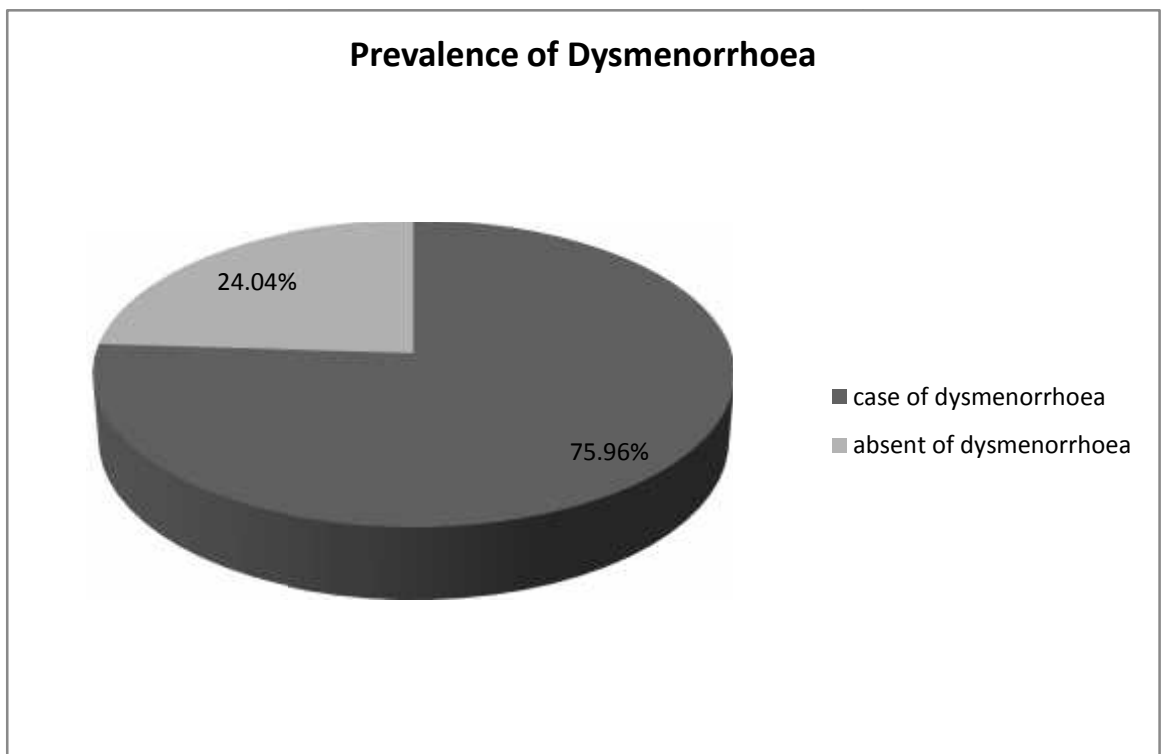
■ case of dysmenorrhoea
■ absent of dysmenorrhoea

Figure 7.1: Prevalence of dysmenorrhoea

The pie-chart depicts that 75.96% (79) of respondents reported dysmenorrhoea and the remaining 24.04 %(25) had no dysmenorrhoea.

7.2   Duration of Dysmenorrheal pain

Dysmennorrhoea is painful menses in females with normal pelvic anatomy, usually beginning during adolescence. It is characterized by cramp pelvic pain beginning shortly before or at the onset of menses and lasting 1 to 3 days.

Table 7.1 Distribution of the Respondents by duration of dysmenorrheal pain

Duration of dysmenorrheal pain	Frequency (n=79)	Percentage
Whole menstrual cycle	42	53.2
Whole day	16	20.3
1-2 hours	13	16.5
2-4 hours	8	10.1
Total	**79**	**100.0**

Source: Field Survey, 2015

Table 7.1 illustrates that 42(53.2%) of respondents suffer from pain for whole menstrual cycle, 16(20.3%) for whole day, 13(16.5%) for 1-2 hours and 8(10.1%) reported 2-4 hours respectively.

7.3   Location of Pain

A number of girls and women suffer from aches, pains and mood fluctuations just before their period. The symptoms for dysmenorrhea can be varied and of which some of them are abdominal pain, back pain, excessive blood loss, lethargy and tiredness, depression and inability to concentrate in work.

Table 7.2: Distribution of the Respondents by Location of Pain

Location of Pain	Responses	Percentage
Abdominal pain	67	84.8
Back pain	42	53.2
Cramp feet	10	12.7
Breast pain	8	10.1
Total	**127**	**160.8**

*Multiresponse

Source: Field Survey, 2015

In the multiresponse, 67(84.8%) of respondents claimed that they felt the pain in abdomen, followed by back pain 42(53.2%), cramp feet 10(12.7%) and breast pain 8(10.1%) respectively.

7.4 Respondents' preference on sharing of dysmenorrhea

In this study, the respondents were asked whether they like to share about dysmenorrhea and if they like to share with whom they like to share. The respondents were found to share their dysmenorrheal problems with their mother, sister, friends and other relatives such as aunt, cousins etc.

Table 7.3: Distribution of the Respondents according to preference on sharing of dysmenorrhea

Prefer to share	Frequency (n=79)	Percentage	If yes, to whom	Frequency	Percentage
Yes	61	58.7	Mother	39	62.9
No	18	17.3	Friend	38	61.3
Total	**79**	**100.0**	Sister	25	40.3
			Other relatives	3	4.8
			Total	**105**	**169.3**

Source: Field Survey, 2015

Table 7.3 reveals that out of 79 respondents who suffers from dysmenorrhea, 61(58.7%) prefer to share followed by 18(17.3%) respondents do not like to share about the dysmenorrhea. Most of the respondent 39(62.9%) prefer sharing with their mother followed by friends 38(61.3%), sister 25(40.3%) and least 3(4.8%) like to share with other relatives (sisters in law, aunt).

7.5 Severity of Dysmenorrheal Pain

Dysmenorrhea is often classified as mild, moderate, or severe based on relative pain intensity, impact on working ability, and requirements for analgesics.
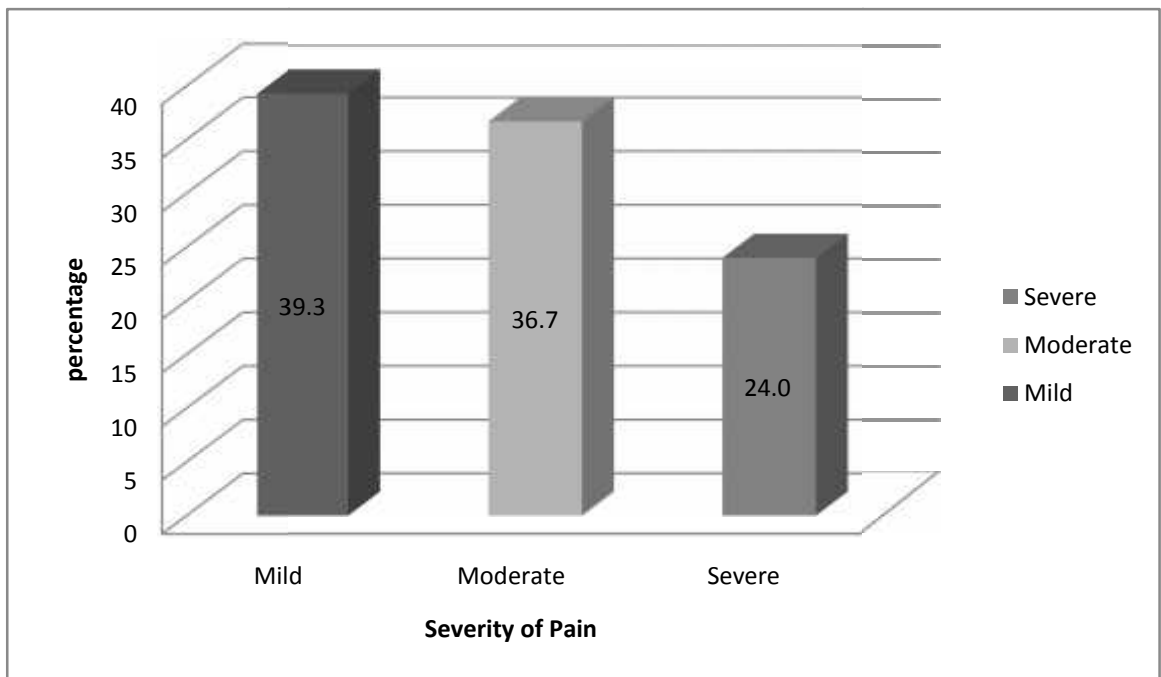

Figure 7.2 Distribution of the Respondents by Severity of Pain

According to figure 7.2, the respondents 31(39.3%) claimed to have mild pain where remaining 29(36.7%) have moderate pain and 19(24.0%) have severe pain.

7.6   Experience of Dysmenorrheal pain in each cycle

Figure 7.3: Distribution of the Respondents by Experience of Dysmenorrhoeal Pain in each cycle

Figure 7.3 illustrates that majority of respondents 44(55.7%) experienced the dysmenorrheal pain in each menstrual cycle and other remaining 35(44.3%) do not experience.

7.7   Action taken during Dysmenorrhoea

The respondents were asked what action they take during dysmenorrhea and multi-response on rest, painkiller, exercise, do nothing, eat nothing, and sleep etc. were the answers by them.

Table 7.4: Action respondent take during Dysmenorrhea

Action	Responses	Percentage
Rest	57	72.2
Take pain killer	27	34.2
Exercise	19	24.1
Do nothing	10	12.7
Eat nothing	6	7.6
Deep sleep	2	2.5
Total	**121**	**153.3**

*Multiresponse

Source: Field Survey, 2015

Table 7.4 describes the multi response of respondents' practices for dysmenorrhea. Majority of the respondent 57(72%) prefer to rest, 27(34.2%) take pain killer, 19(24.1%) do exercise, 10(12.7%) of the respondent do nothing, 6(7.6%) of them eat nothing and 2(2.5%) of the respondent prefer deep sleep. It shows majority of the respondents used to take rest during dysmenorrhea.

7.8   Type of food respondent prefer during Menstruation
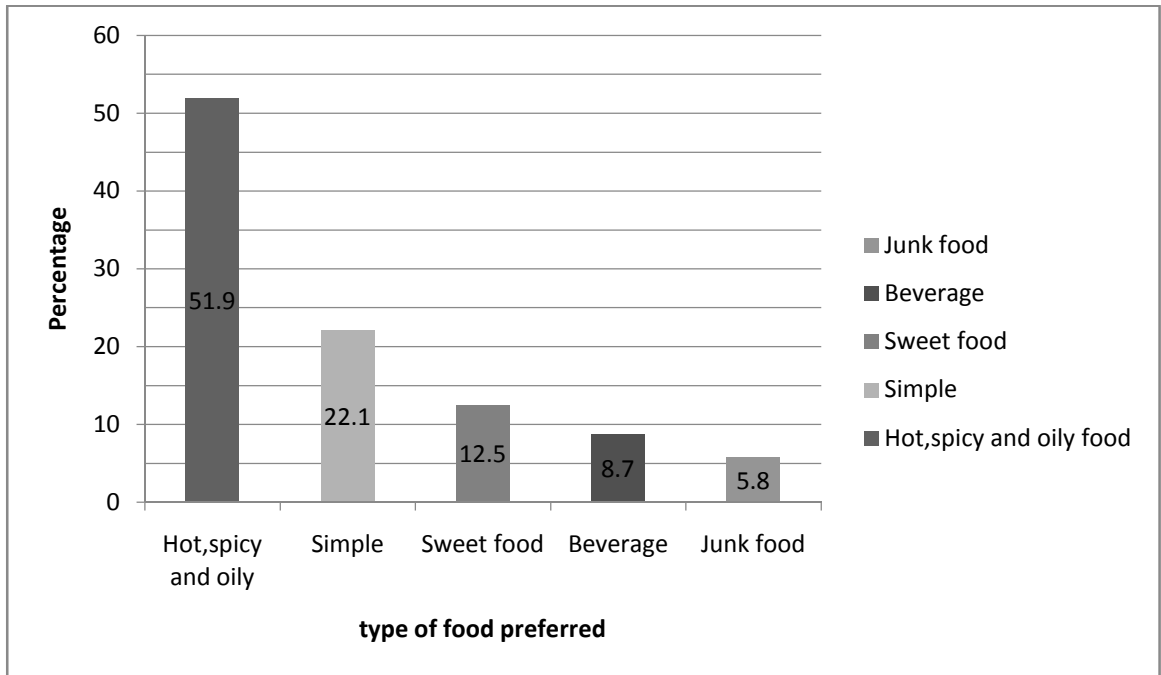
Figure 7.4 Type of food preferred during Menstruation

Figure 7.4 illustrates that majority of the respondent like the hot, spicy and oily food 54(51.9%) whereas some like simple food 23(22.1%), sweet food 12(12.5%), beverage 9(8.7%) and junk food 6(5.8%).

7.9   Absorbents used during menstruation

Menstrual pads are worn as a diaper to absorb menstrual discharge (and thereby protect clothing and furnishings). Some women use a washable or reusable cloth menstrual pad while some use disposable sanitary pad.

Absorbents used

3.8   14.4

81.7

■ Reusuable cloth
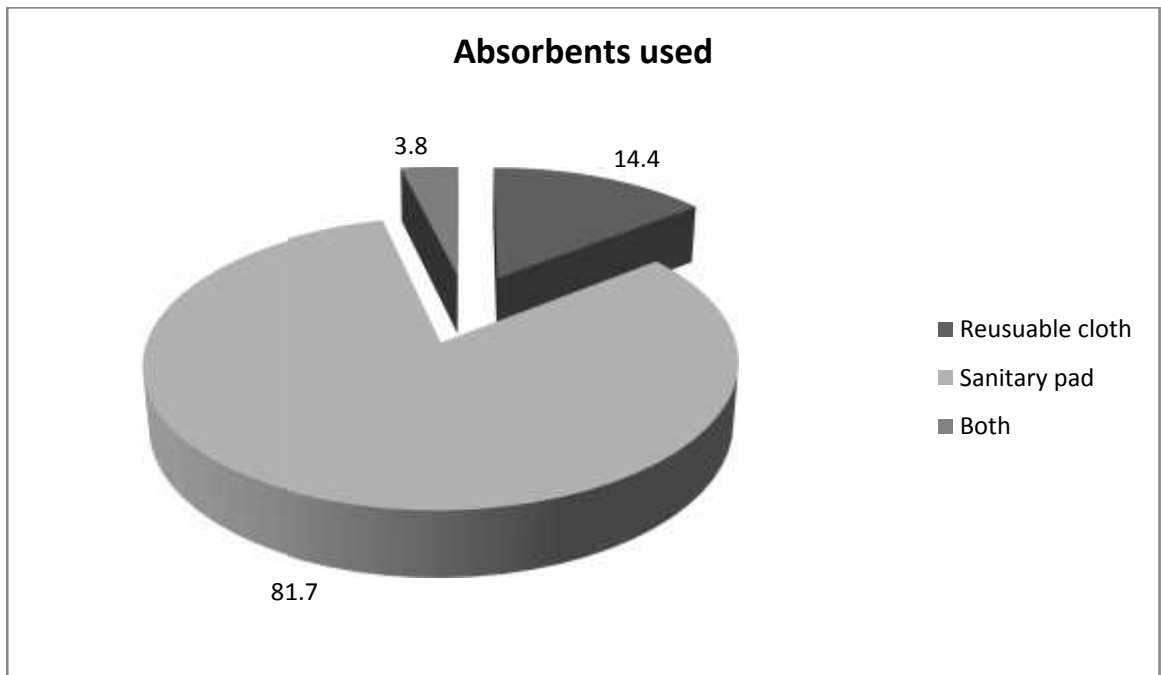
■ Sanitary pad

■ Both

Figure 7.5: Absorbents used during menstruation

Figure 7.5 shows that most of the respondents 85(81.7%) use Sanitary pad at the time of menstrual cycle followed by 15(14.4%) Clean Reusable cloth and 4(3.8%) use both.

7.10   Interval of absorbent changed

Table 7.5: Interval of absorbent changed

Interval	Number of respondents (n=104)	Percentage
Four hours	29	27.9
Six hours	27	26.0
Twelve hours	7	6.7
As necessary	41	39.4
Total	**104**	**100.0**

Source: Field Survey, 2015

Table 7.5 reveals that most of the respondents 41(39.4%) changed their absorbent as necessary, 29(27.9%) every four hours, 27(26.0%) every six hours and 7(6.7%) of the respondents changed their absorbents in twelve hours.

7.11 Excessive bleeding during menstruation in Respondents

Menstruation is the periodic discharge of blood and mucosaltissue from the inner lining of the uterus through the vagina. The bleeding lasts for few days, usually for 3-5 days. But it can last for 6 days or even 7 days in some females.

Table 7.6: Excessive bleeding during menstruation

Excessive bleeding	Frequency	Percentage	Duration of bleeding	Frequency	Percentage
Yes	55	52.8	3 days	12	21.8
No	49	47.2	5 days	22	40.1
Total	**104**	**100.0**	6 days	19	34.5
			Above 6 days	2	3.6
			Total	**55**	**100.0**

Source: Field Survey, 2015

Out of 104 respondents, 58 (55.8%) respondents had regular menstrual cycle. 55(52.8%) of the respondents reported that the excessive bleeding occurs during menstrual cycle and other remaining 49(47.2%) of the respondents had no occurrence of excessive bleeding.

5 days bleeding occurs in the majority of the respondent 22 (40.0%) whereas 19(34.5%) had bleeding for 6 days, 12 (21.8%) respondents for 3 days and least 2 (3.6%) have duration for bleeding more than 6 days.

7.12 Utmost management for Dysmenorrheal pain

Girls use numerous non-pharmacologic remedies as well as medications for pain depending upon their severity of pain. The following table depicts the utmost management adopted by the respondents in this study during their dysmenorrheal pain.

Table 7.7 Distribution of the Respondents according to utmost management for

Dysmenorrheal pain

Utmost management	Number of respondents(n=79)	Percentage	Home remedy (*multiresponse)	Number of respondents	Percentage
Home remedy	36	45.6	Hot water bag	19	18.3
Do nothing	21	26.6	Drink lots of hot water	17	16.3
Painkiller	15	19.0	Exercise	15	14.4
Visit hospital	7	8.9	Tie abdomen with belt or cloth	12	11.5
Total	**79**	**100.0**	Take deep sleep	8	7.7
			Total	**71**	**68.2**

Source: Field Survey, 2015

Home remedy was the common utmost management for addressing the dysmenorrhoic pain by 36(45.6%), among them the multiresponse for the home remedy was 19(18.3%) use hot water bags, 17(16.3%) drink lot of hot water, 15(14.4%) do exercise, 12(11.5%) tie their abdomen to get relief and 8(7.7%) try to sleep deep. 21(26.6%) do nothing. 15(19.0%) of the respondents take pain killer. Among them 12(15.1%) take painkiller during the pain and 3(3.7%) take it before the pain and least 7(8.9%) visit hospital at the time of pain.

Case- 2

I am a 17 years old girl from Lekhnath municipality. I live in rented house in Malepatan, Pokhara with my family. Three years ago, I had menstruation related problems. I had severe bleeding, lower abdominal pain and back pain during menstruation. At first, I did not share with anyone. Later, I shared with my friends and came to know, some of my friends also had similar problem. Then, I felt ease to share my problem with them. One day, I shared my problem to my sister also. Seeing me in such severe pain, she took me to hospital. I got checked by a female doctor there. Though there were no other person else, I felt shy to explain my problem. She encouraged me to share the problems I had. The doctor listened to me and prescribed medicines. She also suggested me to do ultrasonography to find out if there were any uterine problems. The ultrasonographic report was normal, so she counselled me not to worry, it will be lessened in future time. Since then, I take the medicines prescribed by doctor during each menstruation to lessen pain.

7.13 Social Restriction

Menstruation and its practices are still clouded by taboos and socio-cultural restrictions resulting in adolescent girls remaining ignorant of the scientific facts and hygienic health practices, which sometimes result into adverse health outcomes. A look at major religions of the world shows that, without exception, they have placed restrictions on menstruating women. Christianity, Islam, Hinduism, and Buddhism have all made statements about menstruation and its negative effect on women, leading to prohibitions about physical intimacy, cooking, attending places of worship, and sometimes requiring women to live separately from men at this time.

Table 7.8: Social restrictions practiced by Respondents during menstruation

Restrictions	Number of the respondents	Percentage	If yes (multi-response)	Number of respondents	Percentage
Not practiced	32	30.8	Any religious occasion	72	69.2
Practiced for	72	69.2	Household work	38	52.8
Total	**104**	**100.0**	Marriage	22	30.6
			Food restrictions	15	20.8
			Playing	11	15.3
			Total	**158**	**188.7**

Source: Field Survey, 2015

Table 7.8 describes the multi response of the respondents' practice of social restriction. It shows that 72(69.2%) of the respondents practiced social restriction during menstruation while 32(30.8%) did not practice any restriction during menstruation. Among the respondents who practiced restriction, 72 (69.2%) did not participate in any religious occasion, 38(52.8%) did not perform any household activities, 22(30.6%) did not attend marriage ceremony, 15(20.8%) did not eat certain foods such as papaya, banana etc. and 11(15.3%) did not participate in any games.

Case-3

I am a 16 years old girl, is the resident of Pokhara-7, Masbar. I was 13 years old, when I had menarche (first menstruation). Though, I had heard about menstruation from my mother before, I was so nervous and afraid. I was confused what to do and whom to tell. Finally I told my mother about my menstruation. Then she told me to stay in bathroom unless she finds the place to hide for me. After she managed neighbor's house, a place to hide for me, she took me there. She told me to stay inside that room and not to show my face to sunlight and any male. I was not allowed to touch anything and I had to bath every alternate day. I felt so bad being away from

my family and not able to see my family members. I was brought to home after two weeks. From my first menstruation, I practice certain social restriction i.e. I do not attend any religious occasion or marriage ceremony, I also can't eat whatever I like. My mother does not allow me to eat banana, papaya and cow's milk during menstruation. At first I was so hesitated to go school during menstrual days, but now I don't feel any hesitation. I never miss my school during menstruation. I usually have bleeding for 3 days and use sanitary pad during these days.

Though, I do not have any painful menstruation, I cannot do whatever I like and eat food as my wish. Moreover I have to stay untouched, at corner of my house. So, my daily life activities is affected during menstruation.

7.14   Absenteeism from School

Dysmenorrhea is the leading cause of short-term school absenteeism. It is associated with a negative impact on social, academic, and sports activities of many female adolescents. The following table shows the number of the respondents who miss their school during their menstruation.

Table 7.9: Distribution of the Respondents by their absenteeism from School

Absent from school	Number of respondents(n=104)	Percentage
Yes	21	20.2
No	53	51.0
Sometimes	30	28.8
Total	**104**	**100.0**

Source: Field Survey, 2015

Table 7.9 illustrates that 53(51.0%) of the total respondents do not absent their school during menstruation while 30(28.8%) do absent sometimes and rest of them 21(20.2%) remain absent from school during menstruation.

7.15   Effect on Respondent's daily life due to Dysmenorrhea

Menstrual problems are common among young girls. Since the discomfort of the menstrual pain may affect the daily and professional activities of most women, they need to be more concerned about their health during their menstrual period.Most females experience some degree of pain and discomfort during menstrual period, which can impact on their daily activities, and disturb their productivity at home or at their workplace.

Table 7.10: Effect on Respondent's daily life due to Dysmenorrhea

Effect on daily life	Number of respondents(n=79)	Percentage
Yes	19	24.1
No	22	27.8
Sometimes	38	48.1
Total	**79**	**100.0**

Table 7.10 depicts the effect on respondent's daily life due to Dysmenorehea. 38(48.1%) of the dysmenorrhic respondents stated that their daily activities was sometimes affected by dysmenorrhea while 22(27.8%) stated that dysmenorrhea do not affect their daily activities and remaining 19(24.1%) of the respondents' daily activities was affected by dysmenorrhea.

Case- 4
I am a 15 years old girl, who lives with my parents and two sisters in rented house of Bagaletole, Pokhara. I had my first menstruation at the age of 13 years. I was kept in my aunt's house for 5 days and was not allowed to get out of room during sunlight. My some friends had menstruation before me and they used to share their experience about their menstruation which made me easy during my time. I had also known about painful menstruation (dysmenorrhea) from my mother and friends. After I had my menstruation started, I suffered from dysmenorrhea and I am suffering since then.

I suffer from lower abdominal pain and feel comfortable when I take rest. Since I am a Hindu, I use to practice social restriction such as food restriction, not worshipping God and not visiting Temples. Moreover, I am not allowed to enter kitchen room and also I can't play with my cousin brothers. Due to dysmenorrhoeal pain, I sometime remain absent from my school and my daily life activity is also affected to some extent. I don't have enough money to buy sanitary pad so I use clean old cloth as absorbent. Whenever, I have severe pain, I take painkiller medicine which I buy from nearby pharmacy.

I study in class ten now. I know menstruation is a natural process but I can't convince my parents and they force me to follow social restrictions even though I hate following these restrictions.

7.16 Practice about Dysmenorrhea

Practice level was assessed in the respondents who suffered from dysmenorrhea. The respondents who did not have dysmenorrhea were excluded.

Table 7.11: Distribution of the Respondents according to practice about Dysmenorrhea

Practice about Dysmenorrhea	Number of the respondents	Percentage
Satisfactory	63	79.8
Poor	16	20.2
Total	**79**	**100.0**

Table 7.11 illustrates that 63(79.8%) had satisfactory level of practice during dysmenorrhea and 16(20.2%) had poor level of practice about dysmenorrhea.

7.17 Association between Socio-demographic Characteristic and Level of Knowledge and Practice

It deals with the relationship between different socio-demographic characteristics such as age, education, religion, ethnicity, education of respondent's mother and level of knowledge.

7.17.1 Association between Age of the Respondents and Knowledge about Dysmenorrhea

Table 7.12: Association between Age of the Respondents and Knowledge about Dysmenorrhea

Age of the Respondents	Level of Knowledge			Total
	Good	Fair	Poor	
12-14	10(27.1)	14(37.8)	13(35.1)	37(100.0)
15-19	41(61.1)	19(28.4)	7(10.5)	67(100.0)
Total	**51(88.2)**	**33(66.2)**	**20(45.6)**	**104(100.0)**

Figures in parenthesis indicate percentage

Table 7.12shows that most of the respondents were of late adolescence (15-19 years old). The respondents of late adolescence had good knowledge (61.1%), fair knowledge (28.4%) and (10.5%) poor knowledge.37.8 percent of Respondents of age group 12-14 years (early adolescence) had fair knowledge followed by 35.1 percent poor knowledge.

7.17.2 Association between Level of education of Respondents and Knowledge about Dysmenorrhea

Table 7.13: Association between Level of education of Respondents and Knowledge about Dysmenorrhea

Level of education	Level of Knowledge			Total
	Good	**Fair**	**Poor**	
Class 7	0(0.0)	2(28.6)	5(71.4)	7(100.0)
Class 8	6(37.5)	5(31.2)	5(31.2)	16(100.0)
Class 9	15(38.5)	16(41.0)	8(20.5)	39(100.0)
Class 10	30(71.4)	10(23.8)	2(4.8)	42(100.0)
Total	**51(49.0)**	**33(31.7)**	**20(19.2)**	**104(100.0)**

Figures in parenthesis indicate percentage

Table 7.13 shows that (71.4%) respondents of class 10 had good knowledge regarding dysmenorrhea, (41.0%) respondents of class 9 had fair knowledge followed by (20.5%) poor knowledge and (71.4%) respondents of class 7 had poor knowledge regarding dysmenorrhea. It shows higher the level of education higher the level of knowledge about dysmenorrhea.

7.17.3 Association between Religion and knowledge about Dysmenorrhea

Table 7.14: Association between Religion and Knowledge about Dysmenorrhea

Religion	Level of Knowledge			Total
	Good	**Fair**	**Poor**	
Hindu	46(51.1)	29(32.2)	15(16.7)	90(100.0)
Buddhism	3(30.0)	2(20.0)	5(50.0)	10(100.0)
Islam	0(0.0)	1(100.0)	0(0.0)	1(100.0)
Christian	2(66.7)	1(33.3)	0(0.0)	3(100.0)
Total	**51(49.0)**	**33(31.7)**	**20(19.2)**	**104(100.0)**

Figures in parenthesis indicate percentage

The table shows that only one respondent was Muslim and three were Christian. Hindus (51.1%) had good knowledge on dysmenorrhea followed by Christian (66.7%) and respondent following Muslim religion (100.0%) had fair knowledge than other religions.

Case- 5

I am a second daughter of my parents. I have two sisters and one brother. My father works in Church and my mother is a housewife. We are Christian by religion. In our religion, we consider menstruation as normal phenomenon. Thus I and my family do not practice any social restriction during menstruation. We regularly go to Church, study Bible, and do prayers during menstruation also. We don't have any kitchen restriction and food restrictions as well.

But I have heavy bleeding during menstruation i.e. for six days. So, I do not play any games during my periods, as I feel so weak these days. Due to prolonged and heavy bleeding, I frequently miss my school during menstruation which hampers my study and daily activities as well. I prefer home remedy to manage my problem. I take rest and use hot water bag to relieve from pain and discomfort which my mother and elder sister taught me. After 3 days of menstruation, pain gradually decreases but bleeding continues for six days.

Case-6

I am a 14 years old girl and study in class 8. I live in rented house of 3 rooms with my family in Parsyang-5, Pokhara. I have two sisters aged 11 years and 5 years respectively and one brother of 5 years old. My father works in steel factory and my mother is a housewife. My family follows Muslim religion. I attained Menarche at the age of 12 years. I used to bath daily early in the morning during my periods but I was not kept separate from my family and house during my first menstruation. I felt uncomfortable and shy in front of my siblings especially my brother and father.

My mother was source of information regarding menstruation and dysmenorrhea as my mother suffered from dysmenorrhea. I too suffer from dysmenorrhea. I have back pain for whole day which hamper my daily life as sometime I remain absent from school. Moreover, I have heavy bleeding for 6 days so, I feel weak and lethargic during my periods. I take painkiller to relieve pain and sleep for whole day. I use both sanitary pad and clean cloth as absorbent.

During my menstrual period, I do not read Namaz and touch our holybook Quran. I have to bath early in the morning before my father and brother wake up during my periods.

7.17.4 Association between Ethnicity and knowledge about Dysmenorrhea

Table 7.15: Association between Ethnicity and knowledge about Dysmenorrhea

Ethnicity	Level of Knowledge			Total
	Good	**Fair**	**Poor**	
Brahmin/Chhetri	27(49.1)	16(29.1)	12(21.8)	55(100.0)
Janjatis	13(41.9)	11(35.5)	7(22.6)	31(100.0)
Dalits	11(61.1)	6(33.3)	1(5.6)	18(100.0)
Total	**51(49.0)**	**33(31.7)**	**20(19.2)**	**104(100.0)**

Figures in parenthesis indicate percentage

Table 8.4 shows that Dalits had good knowledge (61.1%) than Brahmin/Chhetris and Janjatis whereas Janjatis had poor knowledge (22.6%) than other ethnic groups.

7.17.5 Association between Educational Status of Mother and Level of knowledge

Table 7.16: Association between Educational Status of Mother and Level of knowledge

Educational status of mothers	Level of knowledge			Total
	Good	Fair	Poor	
Illiterate	8(61.5)	2(15.4)	3(23.1)	13(100.0)
Informal	10(58.8)	6(35.3)	1(5.9)	17(100.0)
Primary	16(50.0)	12(37.5)	4(12.5)	32(100.0)
Lower secondary	10(47.6)	8(38.1)	3(14.3)	21(100.0)
Secondary	4(36.4)	4(36.4)	3(27.3)	11(100.0)
Intermediate	2(22.2)	1(11.1)	6(66.7)	9(100.0)
Bachelor	1(100.0)	0(0.0)	0(0.0)	1(100.0)

Figures in parenthesis indicate percentage

The table shows that the respondent's mother who had bachelor level of education had good knowledge (100.0%) followed by the respondents' mother who had informal level of education (58.8%). The respondents' motherwho had lower secondary level of education had fair knowledge (36.4%) on dysmenorrhea. The respondents' mother who had intermediate level of education (66.7%) had poor knowledge on dysmenorrhea.

7.17.6 Association between Occupation of Mother and Level of Knowledge

Table 7.17: Association between Occupation of Mother and Level of Knowledge

Occupation of Mother	Level of Knowledge			Total
	Good	**Fair**	**Poor**	
Agriculture	13(43.3%)	12(40.0%)	5(16.7%)	30(100.0%)
Job	6(37.5%)	5(31.2%)	5(31.2%)	16(100.0%)
Business	11(57.9%)	5(26.3%)	3(15.8%)	19(100.0%)
Housewife	14(51.9%)	6(22.2%)	7(25.9%)	27(100.0%)
Daily wage	6(54.5%)	5(45.5%)	0(0.0%)	11(100.0%)
Abroad	1(100.0%)	0(0.0%)	0(0.0%)	1(100.0%)
Total	**51(49.0%)**	**33(31.7%)**	**20(19.2%)**	**104(100.0%)**

The table shows that most of the mothers were housewife. Respondents whose mother was abroad (100.0%) had good knowledge on dysmenorrhea followed by the respondents whose mothers were involved in business 11(57.9%). Respondents 5(45.5%) whose mother was involved in daily wage had fair knowledge and respondents whose mothers were job holders (31.2%) had poor knowledge on dysmenorrhea.

7.17.7 Association between Age of the Respondents and Practice about Dysmenorrhea

Table 7.18: Association between Age of the Respondents and Practice about Dysmenorrhea

Age of the Respondents	Level of Practice		Total
	Satisfactory	Poor	
12-14	21(75.0)	7(25.0)	28(100.0)
15-19	42(82.3)	9(17.7)	51(100.0)
Total	**63(79.8)**	**16(20.2)**	**79(100.0)**

The table shows that adolescents of age 15-19 years had satisfactory level of practice (82.3%) followed by adolescents of age 12-14 years (75.0%) and adolescents of age 12-14 had poor level of practice about dysmenorrhea (25.0%).

7.17.8 Association between Educational status of the Respondents and Practice about Dysmenorrhea

Table 7.19: Association between Educational status of the Respondents and Practice about Dysmenorrhea

Educational status	Level of Practice		Total
	Satisfactory	Poor	
Class 7	0(0.0)	3(100.0)	3(100.0)
Class 8	13(92.9)	1(7.1)	14(100.0)
Class 9	20(69.0)	9(31.0)	29(100.0)
Class 10	30(91.0)	3(9.0)	33(100.0)
Total	**63(79.8)**	**16(20.2)**	**79(100.0)**

Figures in parenthesis indicate percentage

The table illustrates that respondents of class 8 had satisfactory level of practice (92.9%) followed by respondents of class 10 (91.0%) and respondents studying in class 7 had poor level of practice (100.0%).

7.17.9 Association between Religion of the respondents and Level of Practice

Table 7.20: Association between Religion of the respondents and Level of Practice

Religion	Level of Practice		Total
	Satisfactory	**Poor**	
Hindu	55(79.8)	14(20.2)	69(100.0)
Buddhism	4(66.7)	2(33.3)	6(100.0)
Islam	1(100.0)	0(0.0)	1(100.0)
Christian	3(100.0)	0(0.0)	3(100.0)
Total	**63(79.8)**	**16(20.2)**	**79(100.0)**

Figures in parenthesis indicate percentage

Table 7.20 depicts that the respondents following Christian religion 3(100.0%) and Islam 1(100.0%) had satisfactory practice followed by Hindu respondents 55(79.4%) while respondents following Buddhism 2(33.3%) had poor practice level.

7.17.10 Association between Type of Family of the respondents and Level of Practice

Table 7.21: Association between Type of Family and Level of Practice

Type of Family	Level of Practice		Total
	Satisfactory	**Poor**	
Nuclear	50(79.3)	13(20.7)	63(100.0)
Joint	13(81.2)	3(18.8)	16(100.0)
Total	**63(79.8)**	**16(20.2)**	**79(100.0)**

Figures in parenthesis indicate percentage

Majority of respondents 13 (81.2%) belonging to joint family have satisfactory followed by 3(18.8%) poor level of practice similarly 50 (79.3%) have satisfactory and 13(20.7%) have poor level of practice in the respondent belonging to nuclear family.

CHAPTER-VIII

SUMMARY, CONCLUSIONS AND SUGGESTION

8.1   Summary

The study was conducted entitled "Knowledge and Practice regarding dysmenorrhea among adolescent girls of Higher Secondary School. Dysmenorrhea is a common issues related to menstrual health as it is one common disorder among menstrual disorders. Many adolescent girls are found to be suffered from dysmenorrhea which adversely affect their daily life as well as social life. The overall objective of the study was to assess the existing knowledge and practice regarding dysmenorrhea among adolescent girls of Barahi Higher Secondary School. The specific objectives were to identify the existing knowledge about dysmenorrhea; identify the practice level about dysmenorrhea among adolescent girls, find out the association between socio-demographic characteristics and knowledge level and to find out the association between socio-demographic characteristics and practice level.

The study was guided by feminist theory, medical anthropology and social suffering theory. The study is related to medical anthropology but it does not study about curative aspect of it. It only focuses on knowledge, awareness, beliefs, attitudes and access of mass media among adolescent females. Study design was cross sectional descriptive study. Study type was mainly quantitative supplemented by qualitative studies. The study population of the research were adolescent girl students who are studying in the class 7, 8, 9 and 10 in Barahi Higher Secondary School, Pokhara. Data collection technique used were interview schedule and case study.

Major Findings

This study documented and explored key findings in knowledge and practice regarding dysmenorrhea.

)   The mean age of the students involved in this study was 15.5.Majority of the respondents (40.0%) studied in class 10. More than half of them (52.9%) were from Brahmin and Chhetri castes followed by Janajati castes (29.8%) and Dalits (17.3%). Most of them (86.5%) were Hindu by religion and (76.9%) of them belonged to Nuclear family. Majority of the respondent's mother

(87.5%) were educated. About (35.6%) of the respondents had their parent's job as their main source of income.

⎠ Majority of the respondents (40.4%) attained their menarche at the age of 13 years.

⎠ More than half of the respondents (64.4%) were kept separated from their family during their first menstruation. Among them (25.2%) were kept in relative's house followed by (24.0%) in separate room of house and (15.5%) in their neighbor's house.

⎠ Prevalence of dysmenorrhea was found to be (75.9%).

⎠ More than half of the respondents had heard about dysmenorrhea and mother and friends were the major source of information.

⎠ More than half of the respondents (60.6%) didn't know the cause of dysmenorrhea but practiced home remedial measures to manage the problem.

⎠ About (39.3%) of the respondents claimed to have mild pain followed by (36.5%) moderate pain and (24.0%) severe pain. out of 104 respondents, 54(51.9%) of them like hot, spicy and oily food whereas 23(22.1%) like simple food, 12(12.5%) like sweet food, 9(8.7%) like beverage food and 6(5.8%) like junk food.

⎠ Most of the respondents (81.7%) used sanitary pad at the time of menstruation.

⎠ Home remedy (45.6%) was the common utmost management for addressing the dysmenorrhoic pain while 21(26.6%) do nothing to relieve their pain. 13(19.0%) of the respondents take painkiller and least 7(8.9%) visit hospital at the time of pain.

⎠ A high proportion (69.2%) practiced social restriction during menstruation. Among them 72(69.2%) did not participate in any religious occasion, 38(52.8%) did not perform ant household activities, 22(30.6%) did not attend marriage ceremony, 15(20.8%) did not eat food such as banana, cow's milk and 11(15.3%) did not play any games.

⎠ More than half of the respondents 53(51.0%) did not absent from school during menstruation while 30(28.8%) were absent sometimes and rest of them 21(20.2%) remain absent during menstruation. Most of the respondents (48.1%) stated that their daily life is sometime affected by dysmenorrhea.

⟩ Late adolescents (61.1%) had good knowledge about dysmenorrhea than early adolescents.

⟩ The respondent's mother who had bachelor level of education had good knowledge (100.0%) followed by the respondents' mother who had informal level of education (58.8%).

⟩ Majority of respondents 13 (81.2%) belonging to joint family had satisfactory level of practice.

⟩ Majority of the respondents 51(49.0%) had good knowledge followed by 33(31.7%) fair knowledge and 20(19.2%) poor knowledge about dysmenorrhea. Practice level among the respondents suffering from dysmenorrhea was assessed. Out of 79 respondents suffering from dysmenorrhea, 63(79.8%) had satisfactory level of practice and 16(20.2%) had poor level of practice.

8.2   Conclusion

The study carried out at Barahi Higher Secondary School, Malepatan has given important information regarding the knowledge and practice about dysmenorrhea among the adolescent students. The majority of the students are seen to have good knowledge and satisfactory practice about dysmenorrhea. Moreover a few respondents are still unaware about dysmenorrhea.

The conclusion drawn from this study is the contributing factors like age, education, education of parents, occupation of parents, and source of information are the most common associated factors in the knowledge and practice about dysmenorrhea. Thus correct knowledge and practice are essential area to explore.

8.3   Suggestion for Further Studies

On the basis of research finding following recommendation have been made:

• Since the knowledge and management practice regarding dysmenorrhea was satisfactory in the majority of the girls but taking into account the management practice and prevailing socio-cultural and economic conditions, it is recommended to increase the knowledge by health education on dysmenorrhea and its management practice targeting mothers and adolescence daughters (adolescences and preadolescence before pubertal age) which were in most of them away from scientific facts and mainly cultural in nature.

- Additional studies may be needed by using a wider geographic scope and a larger sample size that should include young girls in secondary schools and their mothers are proposed to produce sufficient and comprehensive information.

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ANNEX I

INTRODUCTION AND CONSENT

Date:

Namaskar! I am Daya Koirala, MA Sociology student from Prithvi Narayan Multiple Campus. I am going to conduct a research work entitled "Knowledge and Practice regarding Dysmenorrhea among Adolescent Girls of Higher Secondary School". I am going to ask you some questions, and expecting that you will give me the real and fact answer for my questions based on your experiences and feelings. All the information given by you will be kept confidential. Your identity will not be disclosed. Your participation in this study as respondent will be voluntarily. You can terminate the process at any time if you feel any discomfort to answer my questions.

…………………………   ……………………….

Respondent's signature   Investigator's signature

Interview guidelines

Form number:

Part A: Demographic and socio-economic variables

1. Age:

2. Which class do you study?...........class

3. Which religion you belong to?

    a. Hindu   b. Buddhism   c. Islam   d. Christian   e. Others

4. Which ethnicity you belong to?

    a. Brahmin/Chhetri   b.Janajatis   c. Dalits

5. Type of your family:

    a. Nuclear   b. Joint

6. Education of father:

    a. Literate   b. Illiterate

7. If literate, has he studied from formal institution?

    a. Yes   b. No

8. If yes, which level has he passed?

    a. Primary level

    b. Lower secondary level

    c. Secondary level

    d. Intermediate level

    e. Bachelor level

    f. Master level and above

9. Education of mother

    a. Literate   b. Illiterate

10. If literate, has she studied from formal institution?

    a. Yes   b. No

11. If yes, which level has she passed?

    a. Primary level

    b. Lower secondary level

    c. Secondary level

    d. Intermediate level

    e. Bachelor level

    f. Master level and above

12. Occupation of Father:

    a. Agriculture

    b. Service

    c. Business

    d. Labour

    e. Abroad

    f. Others specify……….

13. Occupation of mother:

    a. Agriculture

    b. Service

    c. Business

    d. Housewife

    e. Labor

    f. Abroad

14. What is the main source of your income?

     a. Agriculture

     b. Service

     c. Business

     d. Labour

     e. Abroad

     f. Others

15. For how many months, the earned income from main source is sufficient?

     a. Sufficient for less than 6 months

     b. Sufficient for six months to less than 12 months

     c. Sufficient for 12 months

     d. Sufficient for more than twelve months

16. What are the alternative sources of income in your family?

…………………………………………………………………………

Part B: Knowledge related Questions

17. What was your age at menarche? ……….. Years.

18. Were you separated from your family during your first mensuration?

     a. Yes   b. No

19. If yes, where were you kept? ....

20. Did you know about menstruation before menarche?

     a. Yes   b. No (go to 21)

21. If yes, who was the informant?

     a. Mother   b. Sister c. peer   d. Books or Newspaper

     e.   Media f. others……

22. Have you heard about "dysmenorrhea" (painful menstruation)?

     a. Yes   b. No(go to 24)

23. If yes, what is your source of information?

     a. Mother   b. Sister c.Peer d. Other relative

     e.   Media f. Others……

24. Do you know about the causes of dysmenorrhea?

     a. Yes   b. No(go to 26)

25. If yes, what could be the possible cause of dysmenorrhea?

a.Heredity   b.Obesityc.Hormonal   d.Early menarchee. Verythinf. Stress g. Fear h. Others

26. Is dysmenorrhea a communicable disease?

    a. Yes   b. No   c. Don't know

27. How do you perceive dysmenorrhea?

    a. Disease   b. Curse   c. Sin   d. Nothing   e. Others

28. In your view, can dysmenorrhea be prevented?

    a. Yes   b. No(go to 30)   c. Don't Know

29. If yes, what could be the possible ways to prevent dysmenorrhea?(multiple response)

    a. Rest   b. Diet c. Physical activity   d.Regular menstruation

30. In your view, what problem may arise due to dysmenorrhea?(multiresponse)

    a. Lower abdominal pain   b. Backache   c. Dizziness d. Weakness

    e. Excessive bleeding   f. Swelling

31. Do you think use of absorbent can be a cause ofdysmenorrhea?

    a. Yes   b. No

32. What are the commonly associated symptoms of dysmenorrhea?(multiresponse)

    a. Lethargy and tiredness   b. Irritability   c. Inability to concentrate in work

  d. Heaviness in lower abdomen   e. Nervousness   f. Depressed

    g.Loss of appetite   h. Sleeplessness   i. Headache   j. Others

PartC: Practice related questions

33. Since when did you experiencedysmenorrhea ?.........Months……Years

34. When did you felt the pain?

    a. Before menstruationb. After menstruationc. During menstruationd. All

35. How long the pain is felt?

    a. 1-2hrs   b. 2-4 hrs   c. Whole day d. Whole menstrual cycle

36. Where is the pain felt usually?(multiresponse)

    a. Back pain   b. Abdominal painc. Cramp feet   d.Breast pain

37. Do you prefer to share about dysmenorrhea?

    a. Yes   b. No(go to 39)

38. If yes, to whom you prefer to share?

a. Mother   b. Sisters   c. Other relatives'   d. peer

39. Does your mother also felt the pain?

a. Yes   b. No   c.Don't know

40. Severity of pain :

a. Mild b. Moderatec. Severe

41. Did you experience dysmenorrhea in each menstrual cycle?

a. Yes (go to 43)   b.No

42. If no, when do you experience?

a. Sometimes   b. Rarely

43. After dysmenorrhea what action you usually carried out?(multiresponse)

a. Nothing   b. Bed rest   c. Painkiller

d. Fasting   e.Deep sleep   f. Exercise   g. Others

44. What type of food you usually prefer?

a. Simple   b. spicy, hot and oily c. Junk food

d. Sweet   e. Beverage

45. Does your menstrual cycle occurin regular basis?

a. Yes (go to 47)   b. No

46. If no, when does it occur?.........days early…….days late

47. Do you practice any social restrictions during menstruation?

a. Yes   b. No

48. If   yes,   what   social   restrictions   do   you   practice   during menstruation?(multiresponse)

a. Don't attend any religious occasion

b. Don't eat certain foods such as sour foods, banana, radish, papaya etc

c. Don't play any games

d. Don't perform any household works

e. Don't attend any marriage ceremony

49. Do you absent your school due to dysmenorrohic pain?

a. Yes   b. No   c. Sometimes

50. Does it pain enough to restrict/diminished your daily routine?

a. Yes   b. No   c. Sometimes

51. Ideal thing to use during menstruation?

a. Reusable cloth   b. cotton   c. sanitary pad   d. Both ……

52. How frequent do you change?

a. 4 hrs   b. 6 hrs   c. 12 hr   s   d. 24hrs   e. As required (after it gets wet)

53. Does excessive bleeding occur during menstruation?

   a. Yes   b. No

54. How manydays the bleeding happens?

   a.   3 days   b. 5 days   c. 6 days   d. more than 6 days

55. What is your utmost management of dysmenorrhea?

   a. Painkiller   b. Visit hospital/clinic (go to 58)   c. Home remedy(go to 59)

      d. Nothing

56. If you take pain killer, for how long you take painkiller?

   a.   Every 8hr   b. Once   c. Before menstruation   d. Daily

57. When do you take painkiller?

   a.   Before dysmenoric pain   b. During dysmenoric pain

58. If you visit hospital/clinic, when do you visit?

   a. Before menstruation   b. After menstruation

   c. At time of abdominal pain   d. In very severe pain

59. If you practice home remedy,what do you practice for management of pain?(multiple response)

   a.Hot water bag   b. Deep sleep c. Drink lots of water

    d. Tie abdomen with cloth/belt   e. Physical exercise   f. Others

THANK YOU!!!