Psychological Problems and Cope Methods among Pregnant Women in two Bole Sub City Health Service Providers

Addis Ababa University

College of Educational and Behavioral Studies

School of Psychology

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Acronyms

ADHD: Attention Deficit Hyperactive Disorder

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ANC: Antennal Depression

APA: American Psychological Association

CD: Conduct Disorder

DSM-IV: Diagnostic and Statistical Manual of Mental Disorder-Fourth Edition

FGD: Focus Group Discussion

HADS: Hospital Anxiety Depression Scale

HC: Health Center

IPV: Intimate Partner Violence

NEST: Nutrition, Exercise, Sleep and Rest, Time For Self

OTIS: Organization of Technology Information Specialty

PTSD: Post-Traumatic Stress Disorder

SPSS: Statistical Package for the Social Science

WHO: World Health

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Abstract

In dealing with pregnant women, most of the literature available is focused on postpartum depression. This research tries to focus on prenatal anxiety, depression and coping methods. The purpose of this study was to investigate the prevalence and effects of depression, anxiety and to find out the coping methods used by pregnant women. The study was conducted in Bole Sub-city "Woreda 8" and "Woreda 9" health centers. The researcher used mixed type of design. The quantitative data were collected by Hospital Anxiety Depression Scale (HADS) and brief cope scale and the qualitative data collected through interviews and focus group discussions. The quantitative data indicated high prevalence of anxiety and depression among the 275 participants. The result from the qualitative data showed that most pregnant women used religion as a coping method during anxiety and depression. The study also suggests for the health providers to screen a pregnant woman who shows the symptoms of anxiety and depression. In addition the study suggests that this woman shouldn't use substance such as cigarettes, alcohol and drug as a coping method.

Key words: prenatal anxiety, depression, coping methods

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Chapter one

1.1. Background of the study

For many women, pregnancy is a natural and joyful event. The recognition that a woman is pregnant is usually accompanied by a sense of fulfillment and excitement. In some women there may be psychological effects that are manifested as anxiety, depression and other emotional disturbances. Often, expectant mothers develop new and uncomfortable physical symptoms such as nausea and vomiting associated with feeling sick, moody, irritable, and fatigue (Azeez, Benjamin & Folasade 2018).

Understanding the impact of psychological problems faced by pregnant women is vital for the wellbeing of the woman and the child. While pregnancy is often considered as the golden period in a woman's life, there are a host of physical as well as mental challenges faced by them, which usually go unnoticed (Nayak, Poddar & Jahan, 2015).

Children of depressed mothers are also at risk of showing slower cognitive development, low activity, difficulty while interacting with unfamiliar adults, and unresponsiveness. Biomedical consequences include an increased risk for breastfeeding problems, eating and sleep disturbances. Depression during pregnancy has also been associated with poor attendance at antenatal clinics, substance misuse, low birth weight, and preterm delivery. Antenatal depression often precedes postnatal depression and causes great suffering to the woman and her family. On top of that, untreated depression is associated with higher rates of mortality and morbidity. More worryingly, prenatal depression has been linked with malnourished (under-weight) infant in many low-income countries. The prevalence of maternal depression in low-and middle- income countries is estimated at 15%–28% in Africa and Asia, 28%– 575% in Pakistan, and 35%–50%

in Latin America (Ayele, Alemu, Abdiss, Mulat, & Fekadu 2016). The prevalence of depression in developed nations; 20 % in USA, 25% in Canada and 30% in Finland (Da Costa et al., 2000; Marcus et al., 2003; cited in Kartal & Oskay 2017).

A study in Nigeria by Achema, Emmanuel and Moses (2015) teenagers are highly at risk of depression and anxiety than women above their twenties. Adolescent pregnancy is mostly associated with higher rates of morbidity and mortality for mother and infant. It also asserted that, teenage mothers are at risk of socio-economic disadvantage in their life time than those who delay pregnancy until they are above twenty years of age. Maynard (1997, cited in Nnodim & Albert 2016) stated that teenage pregnancy is a delinquent behavior resulting from stress, dislike, malice, boredom and unhappiness experienced by a teenage girl within her home environment.

Psychological problems highly affect teen and unmarried pregnant women, characterized by feelings of anxiety, worry, frustration, sadness and withdrawal (Walker, 2002, cited in Nordin et al., 2012).

Jolley, Sebire, Harris, Robinson and Regan (2000) stated that women above the age of 35 are at increased risk of complications in pregnancy compared with younger women. Similarly, a study in Korea by Sung and Eun (2016) anxiety influences the growth and wellbeing of both pregnant women and fetus during gestation. Since high-risk pregnant women experience more anxiety the severities of high-risk pregnancy such as premature rupture of membranes, cervical incompetence, and placenta previa increases. The study in Health insurance review and assessment service (as cited in Sung & Eun2016) indicates the proportion of high-risk pregnancy is only 7% among pregnant

women between 25 and 30 years of age; the proportion increases to 24% in pregnant women between 35 and 40 years of age and to 39% in those over 40, and high-risk pregnancy accounts for 42.8% of all pregnancies.

According to Belay et al (2018) women who had medium social support were 79% less likely to have antenatal depression as compared to those women who had low social support. This might be explained by the fact that social support from a woman's partner, family, and friends might help them confront stressful life events by receiving emotional and informational supports during pregnancy.

In addition to age and marital status, there are also some risk factors for psychological problems like uncared pregnancy, lack of antenatal care, poor nutrition, stressful life events, gender-based violence, multiple sexual partners, complications of previous pregnancy, like abortions, still births, prolonged labor, operational or instrumental delivery are risk factors for developing psychological disorders in pregnancy (Sharma, Singh, Tempe & Malhotra 2017).

1.2. Statement of the problem

Pregnancy requires a cautionary and well-planned step as it is often times associated with increased psychological problems. There are instances where pregnancy is unexpected, which may further increased depression, stress and anxiety. According to Roberta et al., (2013) if the mother develops psychological problems during pregnancy like stress, anxiety and depression, it will also affect the infant.

The researcher intends to study and uncover psychological problems arising during pregnancy to increase the awareness of the public about the problem in question and draw attention to anxiety and depression. Regardless of the severity of the problem, the psychological services that are being provided for pregnant women in Ethiopia are far from being sufficient. Most previous researches that were conducted on related topics had paid more attention to the postpartum stage psychological problems than those experienced during the prenatal period. Whereas anxiety and depression begin during prenatal period, the problem becomes more serious after the mother delivers the child.

Related with this a study by Silva, M. (2013), depression and anxiety in this period are one of the major risk factors for postpartum depression. Therefore studying on prenatal psychological problems is important.

Therefore the severity of prenatal psychological problems affects the wellbeing and day today activities of pregnant women. Thus, the researcher intends to investigate the problems and the cope methods. The study by Calik and Aktas (2011) antenatal depression and anxiety must be diagnosed and treated early because it affects the wellness of the mother and the fetus

Research questions

1. What is the prevalence of anxiety and depression among pregnant women in Bole Sub-City Woreda 8 and 9 health centers?
2. How do depression and anxiety impact day to day activities of pregnant women in Bole Sub-City Woreda 8 & 9 health centers?
3. How do pregnant women in Bole Sub-City Woreda 8 and 9 health centers cope with depression and anxiety?
4. How depression and anxiety prevalent among demographic characteristics?

Objectives

1.3.1. General objectives

The general objective of this research is to study pregnancy related psychological problems and the coping methods of pregnant women with reference to Bole Health Center.

1.3.2. Specific objectives

- To investigate the prevalence of anxiety and depression among pregnant women in Bole health center woreda 8 and 9.
- To investigate the impacts of depression and anxiety among pregnant women in Bole health center woreda 8 and 9.
- To investigate the cope methods of anxiety and depression during pregnancy in Bole health center woreda 8 and 9.

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- To investigate the prevalence of depression and anxiety among demographic characteristics.

1.4. Operational definitions

Anxiety: Feelings of tense, worrying thoughts, restlessness and sudden feelings of panic measured by Hospital Anxiety Depression (HADS) Scale.

Coping Methods: Ways of pregnant women handle depression and anxiety as measured by Brief Cope Scale.

Depression: Negative or low mood i.e. feeling of guilt and lack of interest measured by Hospital Anxiety Depression (HADS) Scale.

Health Service Providers: Health Centers in Bole Woreda 8 and 9.

Impact: The effects of depression and anxiety on pregnant women within their day to day activities.

Psychological Problems: Refers depression and anxiety

1.3. Significance of the study

This research will provide information for the society and health worker regarding pregnancy related psychological problems and coping methods. It aims to create awareness for pregnant women about anxiety and depression and to provide policy recommendation to the Federal Ministry of Health on the role of psychologists during pregnancy. The research is also expected to contribute and support interventions to pregnant women before being exposed to postpartum depression. The findings of the study will also contribute for governmental specifically on the health centers and non-governmental health centers that have antenatal care.

In addition to the above, this research finding will also be useful as a resource for other researchers specially, for those who study on antenatal depression, anxiety and coping methods.

1.4. Delimitation of the study

Literature's studies have indicated that psychological problems have an influence on the wellbeing of mother and the fetus. The study by Shidhaye and Giri (2014) stated Antenatal clinics can expect at least one in five pregnant women to experience mental health problems, especially depression and anxiety. Therefore, the present investigation is delimited on anxiety, depression and the cope methods of pregnant women with reference to Bole Sub City in two health centers, located in Woreda 8 and Woreda 9 Addis Ababa who are attending their pregnancy checkup on 2011 E.C. The participants of the study are pregnant women who have antenatal checkup. The health centers were selected because they have high pregnancy rate rater that other health centers.

CHAPTER TWO

Review of Related Literature

2.1. Psychological Problems among Pregnant Women

According to Carter (2005) the symptoms of depression such as change in sleep, appetite, and energy is often difficult to distinguish from the normal experiences of pregnancy. Up to 70% of women report some symptoms of negative mood during pregnancy. Pregnant women may suffer from depression, anxiety disorders, such as panic disorder, obsessive-compulsive disorder, and eating disorders. Depression is said to be the most common psychiatric disorder associated with pregnancy.

According to Underdown (2012) pregnancy, birth and the postnatal period is a time of major psychological and social change for women as they get accustomed to their role as mothers. Supporting the mothers' emotional wellbeing during the prenatal period is now recognized to be as important as the traditional focus on the physical health of the mother and child. Increasing evidence show that early brain development and the way in which infants develop emotional and behavioral wellbeing within the context of their early relationships, has highlighted the particular importance of building a bond with the unborn baby, and sensitive early care giving.

Pregnancy is a major psychological, as well as physiological, event: With environmental, family, internal stressors, women may find themselves unable to cope with additional demands of pregnancy. An unborn child and its mother are connected both physically and emotionally. Psychological wellbeing during pregnancy is very crucial for the mother as well as for her child. Effect of the mother's psychology on the fetus starts right from conception (Hiremath, 2016).

The study in Korea by Kang et al (2016) stated antenatal maternal mental health problems have numerous consequences for the well-being of both the mother and the child. While pregnancy is a joyful event for most women, perceived stress and depressive symptoms during pregnancy play a significant role in adverse birth outcomes as well as maternal well-being.

Prenatal period is the time when the risk of psychological disorders in a pregnant woman may increase by several times (Pieta, Jurczyk, Wszolek & Opala, 2014).

According to Azeez et al., (2018) any of the stages of pregnancy could affect the psychological wellbeing of both the mother as well as the unborn baby if adequate attention is not given during this period.

According to Anniverno, Bramante, Mencacci & Durbano (2013) in instances where the pregnancy is unexpected or unwanted, it further increases stress and anxiety. Mitchell, Bennett & Stennett, (2014) stated that suicidal attempts also have been seen during pregnancy. Recent studies in Jamaica revealed that 23.1% of 13-15 years old pregnant teenagers had attempted suicide. Psychological distress and suicidal behaviors among pregnant adolescents elsewhere in the Americas have also been documented between 13.3%–20%.

2.2. Prenatal Depression

According to Mitchell et al. (2014), depression is a common mental disorder which is manifested by negative and low mood, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep or appetite, low energy, and poor concentration. These problems can become chronic or recurrent and lead to substantial impairments in an individual's ability to take care of his or her everyday responsibilities. Similarly the study by Bhowmik, Kumar, Srivastava,

Paswan & Dutta (2012) depression can lead to suicide, a tragic fatality that accounts for the loss of about 850,000 lives every year.

Antenatal depression refers to depression that starts during pregnancy. Between 10-15 percent of pregnant women experience mood swings during pregnancy that lasts more than two weeks at a time and interfere with their normal day-to-day functions (Black dog, n.d.).

Depression is more than just feeling sad or going through a rough patch. It's a serious mental health condition that requires understanding and medical care. Left untreated, depression can be devastating for the people who have it and for their family (Nami, 2015).

2.2.1. Impact of depression during pregnancy

According Verbeek et al. (2015) experiencing anxiety and depression during pregnancy is risk factor for exposing postpartum depression and anxiety. This has been associated with emotional, cognitive, and behavioral problems in the offspring.

Depression has an impact on the pregnant women by exposing to post-partum depression. In addition to this, it will expose to other psychiatric illness, poor marital relationship, stressful life events, a negative attitude towards the pregnancy, and lack of social interaction or support (Biaggi, Conroy, Pawlby & Pairante, 2016).

According to Kartal and Oskay (2017), as a result of depression, norepinephrine and cortisol levels increase. And these hormones also cause very serious obstetric and neonatal problems on the mother and fetus.

According to Gerardin et al., (2010) the impacts of depression, on the newborns of depressed mothers have higher cortisol and lower dopamine and serotonin levels, and they are likely to have a lower birth weight.

Many studies indicated that antenatal depression is the strongest determinant of postnatal depression. Similar studies Choi, et al.(2014, and Brown (2017) stated that antenatal women depression had no immediate impact on perinatal outcomes. The results of antenatal depression are low birth weight, difficulty breastfeeding indicators and postnatal depressive symptoms. Similarly the other study, Chung et al. (cited in Chi et al. 2014) indicated that the women who showed a momentous degree of depression in the third trimester of pregnancy had an increased risk of requiring epidural anesthesia, cesarean section, or instrument-assisted vaginal delivery during childbirth compared with less depressed mothers. The infants born to these depressed mothers were more likely to be admitted to a neonatal intensive care unit than were neonates born to less depressed mothers.

Antenatal depression has greater risk of developmental delay on the baby after 2 years of age. Antenatal depression is the strongest predictor of postnatal depression and it is more common than postnatal depression (Deave, Heron, Evans & Emond, 2008).

2.2.2. Antenatal Anxiety

Anxiety is excessive and uncontrollable worry about something, which interferes with everyday activities. It can be hard to tell the difference between the usually expected pregnancy-related worry and excessive worry. Although it is common to worry about pregnancy or the baby's health, it is not healthy to worry too much. For instance, if the woman couldn't sleep as she did before pregnancy and she is unable to do her usual activities, it is not considered as healthy both for the mother and the baby (OTIS, 2017).

Anxiety during pregnancy is common, but it is far less well acknowledged. People often expect mother to be to see pregnancy as a time of joy and feel "blooming." However, if the pregnant woman tries to share her worries, people say "it's just your hormones!" this type of response can make it more difficult for pregnant women to acknowledge that there is a problem related to pregnancy (Walker, 2010).

The perinatal period is of particular importance as maternal mood and anxiety difficulties are associated with adverse pregnancy outcomes, compromised parenting, and insecure attachment with offspring. Anxiety during pregnancy is associated with adverse pregnancy outcomes such as miscarriage, preeclampsia, preterm delivery, and low birth weight. Further, children of highly anxious mothers have twice the risk for ADHD. Prenatal anxiety has been identified as a strong predictor of postpartum depression (Fairbrother, Young, Janssen, Antony & Tucker, 2015).

2.2.3. Impact of Antenatal Anxiety

Anxiety affects the well-being of the child's behavioral and emotional health. Deave Heron, Evans and Emond (2008) stated the pregnant woman's mood is important because it relates with the well-being of the fetus. For instance, uterine blood flow has been observed to change in association with anxiety during pregnancy. Antenatal anxiety in late pregnancy is independently associated with children's behavioral/emotional problems.

According to Martini, Knappe, Baum, Lieb, and Ulrich (n.d) related with the high level of maternal anxiety and psychological distress, the problem can have an effect on the offspring and can identify with early behavioral and emotional problems. Even after controlling for approved confounders (e.g., nicotine consumption and postpartum depression) externalizing

problems such as attention deficit/hyperactivity disorder (ADHD), conduct Disorder (CD), and oppositional defiant disorder (ODD), behavioral/emotional problems and childhood anxiety were more frequently diagnosed in the offspring. These offspring's outcomes have also been shown to increase the risk for other offspring childhood and adolescent disorders such as anxiety, mood, somatoform, and substance use disorders

The impact of anxiety can be categorized in to biological, mental, behavioral and medical. The biological effects of pregnant women with high levels of anxiety have negative influence on the birth-height, birth weight and fetus growth. The mental effect of anxiety during pregnancy has a relation with mental disorders, emotional problems, lack of concentration and hyperactivity. Impaired cognitive development of children lead the child to cognitive changes, changes in language development, changes ability to classify the contents or feelings and speech in girls. The behavioral effects of antenatal anxiety can lead to prolonged crying in the neonatal period, irritability, restlessness, weak interaction between the mother and child, and more fear in dealing with life events. The other effect of anxiety is a negative impact on children's nervous system growth and development. This issue is associated with negative behavioral consequences including infants' responses to normal and standard sounds in the first nine months of infant's life which is more irritable and nervous response. Another effect of anxiety is medical; children with anxious mothers face serious illnesses both in childhood and adulthood such as shortness of breath, rash, asthma, coronary disease in adulthood and inconsistency of heart rate (Shahhosseini, Pourasghar, Khalilian & Salehi 2015).

2.2.4. Impact of Prenatal Anxiety and Depression

The prenatal period is the most vital period for pregnant women and baby. Psychological problems during pregnancy may lead the mother to miscarriage; it can also be a predictor of

postpartum depression. Anxiety and depression in pregnancy must be diagnosed and treated early because it affects the wellness of the mother and fetus and triggers postpartum depression (Calik & Aktas, 2011).

Experiencing depression and anxiety during pregnancy may expose both mother and infant to many psychological risks, including an impaired bonding with the foetus and with the new-born, increased risk of poor psychological postnatal adjustment, postnatal depression, and physiological consequences, including low birth weight, intra-uterine growth restriction, and preterm birth (Staneva, Bogossian, Pritchard & Wittkowski, 2014)

Profound changes during the perinatal period can trigger stress in pregnant women. Stress during pregnancy has been linked to increased incidence of antenatal depressive or anxiety symptoms (Kang, Dou, Guo, Li, Zhao, Han & Li 2016).

According to Upadhyaya (2016) antenatal anxiety, depression and stress have immediate and long-term effect on off spring. Antenatal anxiety and depression has an influence in obstetric complications and adverse pregnancy outcomes like preterm birth, low birth weight, preeclampsia, preterm delivery and operative deliveries, neonatal withdrawal syndrome and neonatal abstinence syndrome on infants. Whereas the long-term effects are: biological, mental, behavioral and medical complications have been found in children born to anxious mothers. These children may also experience impaired cognitive development, emotional problems and concentration difficulties. Irritability, weak interaction among mother and child and fear in dealing with life events is common. Children of anxious mothers have also been found to be dealing with serious illness, such as shortness of breath, asthma and coronary disease, during different life phases (Shahhosseini et al. 2015 as cited in Upadhyaya, S., (2016).

Most of those who develop postpartum depression were depressed during pregnancy and 2/3 of women with high levels of anxiety at early/ mid late pregnancy were a strong predictor of postpartum depression (Heron et al, 2004, as cited in Cury & Menezes, 2006).

Some people develop a more pronounced anxiety or lower mood (depression) which affects their daily life and functioning. If symptoms last for more than two weeks, it's time to seek support. The signs of antenatal depression and anxiety are: panic attacks (a racing heart, palpitations, shortness of breath, or feeling physically 'detached' from your surroundings), consistent generalized worry often focused on fears for the health or wellbeing of the baby, the development of obsessive or compulsive behaviors, feeling constantly sad, low, or crying for no obvious reason and being nervous, feeling constantly tired and lacking energy, sleeping too much or not sleeping healthy, losing interest in sex or intimacy, being easily annoyed or irritated and having thoughts of death or suicide (Prenatal anxiety and depression in pregnancy Austria, n.d.).

Pregnancy either induces or exacerbates pre-existing stress and in turn stress seems to have a negative effect on pregnancy, especially in the first trimester. The first trimester indicates the highest stress level and also the highest rate of pregnancy loss occur (Santvana, Shamsah, Firuza & Rajesh, 2005).

2.4. Coping Methods among Pregnant Women

Coping strategies have been defined as any attempt to manage conditions that are perceived as stressors (Faramarzi. 2016).

To combat depression and anxiety some pregnant women use maladaptive coping strategies. A maladaptive cope strategy includes; denial, behavioral disengagement, self-blames, self-

distraction, and substance use. However, adaptive strategies like acceptance, positive reframing, active coping, and seeking emotional support were found to have beneficial effects on antenatal anxiety, worries, and depression (Gouronti, Anagnostopolos & Lykeridou, 2013).

The study in Istanbul by Kartal and Oskay (2017) from 255 pregnant women, 60.9% of pregnant women chat with relatives and friends, 36.9% listen to music, 29.3% do hand arts and embroidery and 27.1% read books.

According to Rabia, Hakeem, Aziz, and Afreen (2017), out of the 400 pregnant women with anxiety, and depression, most of them were trying to deal with the situation by self-distraction such as sleeping, shopping, and watching television.

According to Hamilton and Lobel (2008) there are three distinct types of coping methods; planning-preparation, avoidance and spiritual-positive coping. Spiritual coping method was most frequently used whereas avoidance is the least coping strategy to manage prenatal stress. However spiritual coping method predicts optimism.

According to George, Luz, Tychey, Thily & Spitz (2013) the women present severe anxiety symptoms at the last trimester and use less coping strategies with adaptive values such as acceptance, positive reframing and humor. The other coping method is adaptive coping strategies such as planning, active coping, positive reframing; acceptance and humor are known as adaptive coping strategies, whereas denial, self-blame, distraction and substance use are more often associated with negative emotions such as shame, guilt, and lower perception of self-efficacy. Thus, the higher the level of anxiety, the more likely the women used problematic coping responses.

Adapting coping strategies such as active and problem-focused coping strategies resolve the stressor and thereby protect against adverse birth outcomes. Yet, maladaptive forms of coping methods (such as avoidance-to escape from feeling of distress related to the stressor) are passive and less effective (Faramarzi et al, 2016).

Lazarus and Folkman (1984, cited in Guardino & Schetter 2013) stated that the cognitive approach to the study of stress and how a woman appraises events during her pregnancy may shape her emotional and behavioral responses which influence how she copes. Dominant ideas define coping as cognitive and behavioral attempt to manage a particular situation usually labeled coping behavior.

A descriptive study conducted by Muhammad, Omar and Tohid (2014) in Malaysia at Kuala Lumper, more than half of the adolescents (53.8%) admitted to have ability to cope with their pregnancy. Three coping strategies practiced by the participants were identified.

To cope with anxiety, the pregnant women minimize unfavorable outcomes by initially hiding their pregnancy from their parents. Half of them considered illegal abortion to hide their pregnancy. Among the reasons for this secrecy were fear of repercussion of social stigma against their pregnancy and fear of negative reactions from their parents. Secondly, they withdrew from unfavorable environment due to stigma and discrimination by dropping out of school. They also agreed to stay in the shelter home and most of pregnant women used to be at home and had good support from their parents and family. Thirdly, they sought help from significant others for pregnancy-related problems. Parents were their major source of help, followed by friends, their partner and other family members.

Pregnant women can prevent depression and anxiety through five programs called the NEST-S programs that help to cope and prevent anxiety during pregnancy. The NEST-S program includes important areas of self-care such as nutrition, exercise, sleep and rest, time for self, and support.

According to Pine and Aroson (1988, cited in Lin & Chen 2010) from the coping strategies of pregnant women, the most harmful strategies is drug or alcohol use which makes them to flee from the reality.

2.3. Demographic effect on pregnancy

Factors such as age, marital status, income, occupation and unplanned pregnancy associated with antenatal depression and anxiety (Getinet et al. 2018).

According to Belay et al. (2018) younger age, low income, unemployment, single marital status, low educational status, use of substances, lack of social support, marital conflict and unplanned pregnancy are the most risk factors for antenatal depression and anxiety

Undiyaundeye, Agba, and Mandeun (2016) teenage pregnancy is one of the major contemporary issues confronting most countries in the world today. Teenage pregnancy is a pregnancy under the age of 20; the risks are more associated with socio-economic factors than with the biological effects of age. However, research has shown risks of low birth weights, premature labor, anemia, and preeclampsia are fully connected to the biological age itself, as it was observed in teenage births even after controlling for other risks factor like utilization of antenatal care.

For mothers between 15 and 19, additional risks may be associated with socio-economic factors such as difficult labor, a greater chance of caesarian section, premature labor, and birth complications. There could be secondary and tertiary educational deprivation for the pregnant teenager and approximately one half of the girls who give birth before the age of eighteen do not complete schools. As a result, life plans and career goals are disrupted. The girl experiences isolation from her peers. Due to difficulty in pregnancy, emotional experience could lead to: disappointment, anger, depression, feelings of being trapped, loneliness, anxiety and insecurity (Pitso, Kheswa, Nekhwevha & Sibanda 2016).

Pregnancy after the age of 35 may lead to miscarriage. Fetal loss can result from a number of different causes including genetic factors (i.e. chromosomal anomalies), anatomic factors (i.e. abnormalities of the uterus), endocrine factors (i.e. diminished progesterone secretion), immune factors (i.e. generation of auto-antibodies), microbiologic factors (i.e. group B streptococcus, toxoplasmosis or rubella), environmental factors and diminished ovarian reserve (i.e. folic acid deficiency and elevated homocysteine) and 60% miscarriage are due to fetal chromosome anomalies (best start, 2007).

According to Madhavanprabhakaran, Souza and Nairy (2015) study most (68%) of the pregnant women had moderate anxiety during the first trimester. Across the trimesters the highest prevalence of 38% severe anxiety was reported during third trimester.

According to Zain, Low and Othman (2015), the severity of anxiety and depression among pregnant women are different based on the happiness of their marital status. For instance, pregnancy among unmarried women is far more likely to be unintended and to have negative effects on both the pregnant woman and her child.

Pregnancy between 20 to 29 years of age had reduced the risk of depression as compared to ageless than 20 years. And depression among housewives is higher as compared to employees. This is because having a permanent job for antenatal depression might support the mother to have an intimate friend and to share information concerning issues with her pregnancy (Ayele 2016).

The study in Ethiopia by Ayano, Tesfaw and Shumet (2019) the prevalence of AND was high in the third trimester of pregnancy as compared to the first and second trimesters of pregnancy. The prevalence of AND was highest in the third trimester of pregnancy at 32.10% and it was 19.13% in the first trimester and 18.86% in the second trimester of pregnancy. Similarly the study by Bisetegn, et al. (2016) stated that third trimester had higher anxiety and depression than first and second.

Buko, Ayano and Bedaso (2019) study 68 (21.5%) mothers in the age group of 20– 30 years, were indicated significantly associated with antenatal depression with p-value of <0.05.

2.4. Prevalence of Antenatal Depression and Anxiety

More than 400,000 children are born each year to depressed mothers, making perinatal depression the top undiagnosed obstetric complication in America. Between 50 to 80 percent of new mothers have depression symptoms consistent with sufferers of the "baby blues," a temporary condition usually lasting no more than a few days following childbirth. Symptoms include crying, anxiety and mood swings (Pollock, n.d).

According to Karraa (2010) the effects of anxiety and depression are estimated to be from 5% to nearly 25% of pregnant women (1 in 8) are affected by mood or anxiety disorder. In

addition to this, anxiety in pregnant women results in high levels of cortisol across the placenta and has long term effect that may follow after birth.

High prevalence of antenatal depression has been reported from developing countries, 29 % in Bangladesh, 25 % in Pakistan, 20.2 % in Brazil, 39 % in South Africa Cape Town, 38.5 % in South Africa KwaZulu-Natal and 39.5 % in Tanzania (Biratu & Haile, 2015).

During pregnancy, anxiety and depression are highly prevalent and are known to have a range of serious negative consequences for the child. Prevalence studies in developed countries show a prevalence of 10 –15 % for depression and anxiety during pregnancy (Verbek, Arjadi, Vendrik, Burger & Berger 2015).

A study on a sample of Singaporean women who were hospitalized during pregnancy shows that 12.5% of those women suffered from anxiety disorders (Thiagayson et al., 2013 as cited in (Kang,et al., 2016).

The findings from the recent studies in Austria by Leach, Poyser and Schmid (2017) indicate that anxiety is common for women during the perinatal period. The prevalence of anxiety disorder is between 2.6% and 36.9% women experience anxiety disorder during pregnancy and 3.7–20% during the post-partum period.

Almost 10% of pregnant women worldwide experience depression, and the rate is higher (15%) in developing countries. The prevalence of antenatal depression was 33.8% in Tanzania. The prevalence of antenatal depression among Omani women was 24.3%. In Egypt, the study showed that 63% of women expressed simultaneous anxiety and depression (Bawahab, Alahmadi, & Ibrahim, 2017).

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In South Africa, the diagnostic prevalence of perinatal anxiety disorders range between 3 and 30% for post-traumatic stress disorder (PTSD), 1.5% for panic disorder, 2.3% for phobia and 0.8% for social phobia (Spies et al. 2009, as cited in Heyningen, Honikman, Myer, Onah, Field, & Tomlinson 2017).

According to Getinet, Amare, Boru, Shumet, Worku, and Azale (2018) study indicated antenatal depression among Brazilian women indicated that the prevalence of depression in the third trimester of pregnancy was 38% and after delivery in the first six months was 43%.

The prevalence of antenatal depression varies across different parts of the world. It has been reported to be 47% in rural South Africa, 39.5% in Tanzania, 28.5% in China, 14.9 % in Italy, 13.8% in Malaysia, 13.2% in Germany, and 10.9% in Turkey (Belay, Moges, Hiksa, & Arado, 2018).

2.4.1. Prevalence of Antenatal Depression and Anxiety in Ethiopia

In Ethiopia, there is limitation of published report related with the prevalence of depression during pregnancy. Published studies indicated that there is increased prevalence of antenatal anxiety and depression. However, the most frequently cited determinants are similar to the factors reported in other low and middle income countries for instance; low education, low income and unmet needs in reproductive health and obstetric care are factor for anxiety and depression. In addition to this, unplanned pregnancies, lack of partner support and house hold food insecurity were found to be strong predictors of antenatal depression (Bisetegn, Mihretie & Muche 2016).

Assefa et al. (2011, cited in Andebirhan 2014) stated that the prevalence of antenatal depression disorder was found to be 31.2% carried out in the ANC clinic at Adama Hospital, as measured using the Beck Depression Inventory.

The prevalence of antenatal depression in Ethiopia is different from one town to another it ranges "between" 11.8% to 31.2 percent. The percentage in the rest of the towns in Ethiopia are: 23% in Gondar, 25.6% in Shashemene, 28.7% in Sodo district, 31.1% in Maichew, 31.2% in Adama, 11.8% in Debretabor, 19.9% in Gilgel Gibe, and 17.9% in Afar Dubti (Getinet, Amare, Boru, Shumet, Worku, & Azale 2018).

The prevalence of antenatal depression ranges from 7 to 15% in high-income countries where as women from a developing country are usually exposed to risk factors for the development of perinatal depression like poor socioeconomic status, unintended pregnancy, and gender based violence. For instance in Ethiopia, at least one in five women reported intimate partner violence (IPV) develops perinatal depression. The prevalence and associated factors of perinatal depression across different communities of Ethiopia showed that there is no pooled evidence regarding the overall prevalence and potential associated factors of perinatal depression (Mersha, Abebe, Sort, Lamessa & Abegaz 2018).

2.5. Impacts of anxiety and depression in Ethiopian

Depression during pregnancy has devastating consequences, not only for the women, but also for the child and family. Depression during pregnancy negatively influences social adjustment and marital relationships. It affects also the mother-infant interaction through its influences on the occurrence of postnatal depression. Antenatal depression has also a significant

impact for poor infant health (low birth weight, preterm delivery or both, fetal growth restriction) in low and middle income countries (Biratu & Haile 2015).

The study by Getinet et al. (2018) Pregnancy-related depression is the one encountered during the time of child conception. It is manifested by persistent sadness and associated with additional somatic symptoms like decreased energy, sleep disturbance, weight loss, hopelessness, difficulty to think, poor concentration, disturbed sleep, and trouble with appetite along with inability to feel happiness.

2.6. Psychological Theories of Depression and Anxiety

2.6.1. Behavioral Theory

Behavioral theory emphasizes the usefulness of environment and mainly focus on observable behavior which individual learns behavior through classical conditioning, operant conditioning and social learning theory. According behavioral theory depression is caused by person interaction with environment.

Classical Conditioning: state depression and anxiety is caused by the removal of positive reinforcement from the environment. Social learning theory remarks, depression can be learning through observation, imitation and reinforcement. Operant conditioning: states depression can cause by losing jobs, when a loved one is lost, loss of the sympathy and attention of friends and relatives. These leads to some maladaptive behavior such as, crying, complaining, talking of suicide, increase social isolation and unhappiness (Lewinson 1974, as cited in McLeod, 2015).

2.6.2. Psychodynamic Theory

Freud (1971 as cited in McLeod, 2015) stated that many cases of anxiety and depression were due to biological factors and some cases of depression could be linked with loss or rejection by parent and loss of an important relationship which makes the individual to re-experience childhood episodes. Moreover, Freud modified his theory that depression occurs when the individual's super ego or conscience is excessively severe or dominant. On the other hand, the manic phase occurs when the ego or rational mind asserts itself and the individual feels control.

2.6.3. Cognitive Theory

According to cognitive theory depression and anxiety occurs through negative thoughts about self, the world and the future. Depressed individuals tend to view themselves as helpless, worthless, and hopeless, depressed person see the world as posing obstacles that cannot be handled (Beck 1967, as cited McLeod, 2015).

2.6.4. Humanistic Theory

Maslow, 1967(as cited McLeod, 2015) emphasizes the important of self-actualization or achieving out one's potential. The self-actualizing human being has meaningful life. For this reason, humanistic theory concludes that anything that blocks our striving to fulfill this needs (self-actualization) cause depression.

Relevance of theories to the present study

Cognitive behavioral theory

In this study, the investigator feels that the cognitive behavioral theory helps to understand the issues rose in the paper because it focuses on external problems such as getting annoyed or nervous, angry, irritability, fever, sleep disturbance and eating disorder and another one is thoughts or cognitive problems such as confusion, lack social interaction, impaired judgment. In addition, cognitive theory concerns the thought of human being. Thought is related to knowledge; knowledge is situated in activity bound to social, cultural, memory, perception and physical contexts. Concerning pregnant women the nature of their thoughts determines their psychological wellbeing. Furthermore, behavioral theory assumes that learning occurs through interactions with the environment. Concerning this theory, most literatures suggest that pregnant women show behavioral changes. These include, crying, irritability, lack of social relationship and sleep disturbance. Regarding coping methods, according cognitive behavioral theory the coping strategy for any psychological distress is cognitive restructuring and relearning.

Pregnancy is an event that changes how a woman looks at the world and affects her health, emotions, and social roles. Cognitive-behavioral approach teaches pregnant women coping strategies, helps them to understand psychological factors, and changes their perspective toward themselves, the world, the future, and the attitudes that lead them to anxiety and depression. This is because cognitive behavioral theory changes unwonted thought and behavior to wanted thought and behavior.

CHAPTER THREE : METHODS AND PROCEDURES

3.1. Study design

In this investigation, the researcher used mixed research methods; explanatory sequential design mixed method approach. According to Creswell (2014) an explanatory sequential mixed method approach are first conduct quantitative research, analyzes the results and then builds on the results to explain them in more detail with qualitative research. The quantitative data were collected by using the standardized scale Hospital Anxiety, Depression Scale (HADS) and Brief Cope Scale.

The quantitative data allow the investigator to generalize findings depending on the representatives of the sample and the qualitative data is the study of social world which seeks to describe and analyze the culture and behavior of humans (Neuman 1997, Bryman 1993, cited in Sodi 2009). The qualitative data helps the investigator to have detail and depth idea of participants.

Thus, the investigator also used qualitative research through interview guideline which helps the investigator to investigate the impacts of depression and anxiety among participants. Through qualitative approach the participants allow to share their experiences and idea without the influence of the researcher.

The qualitative approach, according to Bryman (1993 as cited in Sodi, E., 2009) qualitative methodology is an approach to the study of the social world which seeks to describe and analyze the culture and behavior of humans.

3.2. Study area

The study was conducted in Woreda 8 and Woreda 9 health service providers in Addis Ababa, Bole Sub-City because these health centers serve mostly the low and middle income community. The health centers provide antenatal and postnatal checkup. The reason the researcher selected Woreda 8 and 9 health centers as the study areas was the information obtained about the increasing pregnancy rate from Addis Neger EBS Tv News (2010 EC). In addition to this, Woreda 9 has obtained recognition from the Ministry of Health for providing better services for the public at large. The researcher has also obtained information from the medical directors of Woreda 8 and 9 health centers about the prevalence of high pregnancy rate in these Woredas than others.

3.3. Study population

This investigation has focused on pregnant women who had antenatal checkups with the age ranges from 18 to 47 enrolled in the year 2011 (E.C) in Addis Ababa. The total population of pregnant women who were admitted to the Woreda 8 and 9 health centers from Mar15-Apr15 was 416 and 448 respectively, which makes the total 864.

3.4. Sampling Procedure

In this investigation, the researcher used the convenient sampling technique. The reason why the researcher used this sampling method was because of the fact that the method is dependent on the availability of the women. Very often the respondents come to the health centers for only check-ups purposes. The other reason why the researcher used this method is because of the fact that the time passes by, the respondents will give birth to children, and consequently, the researcher will not be able to get third trimester respondents. Some pregnant

women do not have a willing to respond to the questions because of and exhaustion (tiredness), among others. For this reason, the researcher could not use probability sampling technique.

The number of pregnant women from "Woreda 8 health center" was 416 and the number of pregnant women from "Woreda 9" health center was 448. This is found from the health centers. Therefore, the total numbers of pregnant women from health centers were 864.

In this investigation, the researcher selected Yemane's (1967 as cited in Glenn 1992) sample size determination formula. The formula to determine sample size is $n=N/1+N\ (e)^2$. Where n =represent: sample size, N: population, e: alpha level.

$n= 864/ 1+864(0.05)^2$

$864/ 1+864(0.0025)$

$864/ 1+2.16$

$864/ 3.16$

$n= 273$

By using the above formula, 273 sample participants were selected from the total population of 864 in two selected health centers.

In case some of the selected respondents withdrew and are not ready to participate in the study, the researcher selects additional 10% sample respondents. 273*10%= 27.3

So 273+27.3=300

To find proportion for each center

P= n/N

300/864=0.347

P=0.347*416

P= 144.352

So the investigator selected 144 respondents from “woreda 8”

The sample for “woreda 9”

P= n/N

P= 0.347*448

P= 155.456

Therefore, according to Yemane’s formula the investigator used proportion for each center. The selected sample from both health centers was 144and 156 respondents from woreda8 and 9 respectively. Hence, the total number of 300 participants was selected. However, in this study, 25 questionnaires were discarded because some of the pregnant women had quit filling the forms when it was their turn to see their nurses.

3.5. Instruments for data collection

As the study used mixed approach, questionnaires and interviews were the main instruments used in this study.

The quantitative data was collected by using standardized scale, that is, the Hospital Anxiety Depression Scale (HADS) and Brief Cope Scale. According to Ambaw's (2011) study on orphans, the Amharic version of Hospital Anxiety Depression Scale (HADS) had Cronbach alpha values of 0.81 and 0.76 for anxiety and depression sub-scales respectively. The other study that was conducted by Mekonnen (2017) indicated that the results for the HADS the Cronbach alpha values were 0.80 and 0.78 respectively. Therefore, the items in the scale have consistency with each other and the reliability of the scale is high.

According to Zigmond & Snaith (1983) the HADS was developed as a self-assessment tool. Hospital Anxiety and Depression Scale (HADS) is a useful instrument in a variety situations including in primary care settings, community setting, antenatal clinics, psychiatric patients and to screen normal and above normal person.

The other questionnaire used in this study was Brief Cope Scale. Baumstarck, et al. (2017) indicated Cronbach alpha for the scale to be 0.82.

The qualitative data were collected by using semi-structured interview guide. Collecting the data using interview helps the investigator to investigate the impact of anxiety and depression among pregnant women and to understand the behavior or feelings of pregnant women in-depth.

3.6. Scoring

The Hospital Anxiety and Depression Scale (**HADS**).

HADS scale has 14 items (seven items for the anxiety sub-scale and seven items for depression sub-scale).The value on the scale for each item range from zero to three: zero- means not at all, one- indicates occasionally, two- indicates a lot of the time, and three- indicates most of the time.

The total score ranging from 0 to 21 for each subscale, the level of anxiety and depression (0-7= normal, 8-10= mild, 11-14= moderate and 15-21= severe. The higher total score indicate high level of anxiety and depression. The Questions relating to anxiety are marked 'A' and to depression 'D'.

Brief Cope Scale

Brief Cope questionnaire contains 28 items and is rated on a four-point Likert scale. The value on the scale ranges from "I haven't been doing this at all" (score one) to "I have been doing this a lot" (score four). Each item was analyzed separately because it represents a different coping method (Yusoff, Low and Yip, 2010).

3.7. Procedure of Data Collection

The scale was translated in Amharic to present the scale in understandable way of local language. After the translated Amharic version of Hospital Anxiety Depression Scale (HADS) and Brief Cope Scale were improved by changing words found to be confusing.

First, the investigator got permission letter from the head/medical director of the health centers and also asked the consent of the participants at the health centers. Then, the investigator

introduced the purpose of the investigation for the participants. Enough time was given to participants to fill the questionnaire at Woreda 8 and 9 health centers. After the data collection, the researcher checked that all questions were answered.

The interview and discussion were conducted in Amharic and were later transcribed and translated in to English.

3.8. Pilot Study

A pilot study was conducted to check the clarity, appropriateness and reliability of the instruments.

Before collecting the data, the reliability of Brief and HADS were checked for internal consistency. The instruments which were prepared in English were translated in to Amharic and back to English by two language experts who are working at Addis Ababa University and three Psychology PhD candidates at Addis Ababa University to decrease language errors that can impede the outcomes of the study. For the purpose of the pilot study, 35 participants were selected randomly from “wereda 8” and “woreda 9” health centers. However, those respondents who participated in pilot study were excluded from the main study.

The collected data were entered and analyzed using SPSS version 23 to identify the reliability of HADS and Brief Cope Scale. Cronbach alpha for depression was 0.85 and 0.83 for anxiety (HADS). Cronbach alpha for the 28 Brief Cope Scale was 0.71. The Cronbach alpha results of these measures in the main study were 0.89 for Brief Cope Scale, 0.90 for Depression and 0.89 for Anxiety (HADS).

3.9. Methods of data analysis

In this investigation descriptive statistics were used to answer the research questions and to address the objectives of the study. The quantitative data were analyzed by using Statistical Package for Social Science (SPSS) window version 23 to describe, analyze, summarize and interpret the quantitative data in this study. The investigator employed descriptive statistical techniques namely frequency (percentage) distributions and standard deviation and mean. The study obtained from the qualitative data transcribed the original ideas of the respondents and then the transcripts with similar issues were grouped into similar category. Codes that are similar integrated in to themes. The qualitative data were transcribed and interpreted thematically.

The results regarding each research question were analyzed as follows:

1. The deference of demographic characteristics was analyzed by using ANOVA
2. The prevalence of anxiety and depression was analyzed by the descriptive statistical techniques such as frequency and percentage
3. The impact of depression and anxiety among pregnant women was analyzed by thematically; transcribed, original ideas of the respondent were noted as it is then, transcripts with the same issue grouped in to similar category. Codes that are similar integrated in to themes.
4. The cope methods of pregnant women were analyzed by descriptive statistics (Mean, Std.)

3.10. Ethical considerations

The researcher received informed consent of the participants before the questionnaire was distributed.

The objectives and purposes of the research were clearly communicated to participants and the investigator also let them know to withdraw if they feel discomfort in the process of their participation in the undertaking.

In addition, participants were told that their answers would remain only for research purpose and kept confidentially. Regarding the confidentiality and anonymity, the participants were also informed not to disclose their names in the questionnaires.

Furthermore, respondents were informed to withdraw from the research at any point if they feel uncomfortable and do not want to fill the questionnaire.

CHAPTER FOUR : RESULTS AND FINDINGS

The purpose of the study was to investigate anxiety and depression among pregnant women and their coping methods with reference to two Bole Sub-City health centers. This chapter presents data collected through self-report questionnaires. The analysis was presented in line with the research questions raised in the study.

Quantitative Data

Table 1**:** Socio-Demographic Characteristics of the Respondents (N=275)

		Frequency	Percentage
Age	18-23	141	51.3
	24-29	87	31.6
	30-35	24	8.7
	36-41	16	5.8
	42-47	7	2.5
	Total	275	100
Marital Status	Married	101	36.7
	Unmarried	161	58.2
	Divorced	10	3.6
	Widowed	4	1.5
	Total	275	100
Educational level	Illiterate	21	7.6
	1-8	109	39.6
	9-10	70	25.5
	11-12	30	10.9
	Diploma	43	15.6
	Undergraduate and above	2	7
	Total	275	100
Pregnancy Trimester	First Trimester	31	11.3
	Second Trimester	110	40.0
	Third Trimester	134	48.7
	Total	275	100.0
Employment Status	Employee (Worker)	124	45.1
	Housewife only	151	54.9

Among 275 total respondents, 141(53%) of them were between the age of 18 and 23. Unmarried

women were over half of the respondents. With regard to their educational level, 109 (39%) of them were from grade 1 to 8 level. When it comes to trimester, those who fall under third trimester were 134 (48.7%). Most of the respondents were housewives.

Hospital Anxiety Depression Scale

4.1. The Prevalence of Depression among Pregnant Women

Table 2. Level of Depression among Pregnant Women as Measured by Hospital Anxiety and Depression Scale

Level	Frequency	Percent
Normal	**45**	**16.4**
Mild	**27**	**9.8**
Moderate	**121**	**44.0**
Severe	**82**	**29.8**
Total	**275**	**100.0**

As indicated in the above table, 121 (44%) of respondents had moderate level of depression and 82 (29%) severe level of depression.

Table 3. Level of Depression among Pregnant Women as Measured by HADS by Age (N=275)

age of the respondents		Frequency	Percent
18-23	Normal	22	15.6
	Mild	12	8.5
	Moderate	50	35.5
	Severe	57	40.4
	Total	141	100.0
24-29	Normal	14	16.1
	Mild	12	13.8
	Moderate	46	52.9
	Severe	15	17.2
	Total	87	100.0
30-35	Normal	6	25.0
	Mild	1	4.2
	Moderate	10	41.7
	Severe	7	29.2
	Total	24	100.0
36-41	Normal	1	6.2
	Mild	1	6.2
	Moderate	12	75.0
	Severe	2	12.5
	Total	16	100.0
42-47	Normal	2	28.6
	Mild	1	14.3
	Moderate	3	42.9
	Severe	1	14.3
	Total	7	100.0

Among the 275 respondents, those age 18 and 23 or 57(40.4%) indicate severe level of depression.

Table 4. Level of Depression among Pregnant Women as Measured by HADS by Marital Status (N=275)

Marital status		Frequency	Percent
Married	Normal	24	23.8
	Mild	10	9.9
	Moderate	52	51.5
	Severe	15	14.9
	Total	101	100.0
Unmarried	Normal	19	11.9
	Mild	17	10.6
	Moderate	67	41.9
	Severe	57	35.6
	Total	160	100.0
Divorced	Normal	1	10.0
	Moderate	1	10.0
	Severe	8	80.0
	Total	10	100.0
Widowed	Normal	1	25.0
	Moderate	1	25.0
	Severe	2	50.0
	Total	4	100.0

The prevalence of depression was severe 80% in divorced pregnant women.

Table 5. Level of depression among Pregnant Women as Measured by HADS by Educational status

Educational status of the respondents		Frequency	Percent
Illiterate 01	Normal	8	25.8
	Mild	4	12.9
	Moderate	11	35.5
	Severe	8	25.8
	Total	31	100
1-8	Normal	15	13.8
	Mild	9	8.3
	Moderate	47	43.1
	Severe	38	34.9
	Total	109	100
9-10	Normal	10	14.3
	Mild	7	10
	Moderate	30	42.9
	Severe	23	32.9
	Total	70	100
11-12	Normal	4	13.3
	Mild	5	16.7
	Moderate	16	53.3
	Severe	5	16.7
	Total	30	100
Diploma	Normal	10	23
	Mild	1	2.3
	Moderate	23	53.5
	Severe	9	20.9
	Total	43	100
Under graduate and above			
	Mild	1	50
	Moderate	1	50
	Total	2	100

The prevalence of depression among educational status 1-8 grade level pregnant women indicated a severe level of depression is 44(32.8%).

Table 6. Level of Depression among Pregnant Women as Measured by HADS by Trimester (N=275)

Pregnancy trimester		Frequency	Percent
First trimester	Normal	8	25.8
	Mild	4	12.9
	moderate	11	35.5
	Severe	8	25.8
	Total	31	100.0
Second trimester	Normal	20	18.2
	Mild	10	9.1
	moderate	50	45.5
	Severe	30	27.3
	Total	110	100.0
Third trimester	Normal	17	12.7
	Mild	13	9.7
	moderate	60	44.8
	Severe	44	32.8
	Total	134	100.0

The prevalence of depression among third trimester pregnant women those who indicated a severe level of depression are 44(32.8%).

Table 7. Level of Depression among Pregnant Women as Measured by HADS by employment status (N=275)

Respondents employment status		Frequency	Percent
Employee	Normal	25	20.2
	Mild	14	11.3
	Moderate	58	46.8
	Severe	27	21.8
	Total	124	100.0
House wife only	Normal	20	13.2
	Mild	13	8.6
	Moderate	63	41.7
	Severe	55	36.4
	Total	151	100.0

The prevalence of depression among house wives pregnant women those who indicated a severe level of depression are 55(36.4%).

Table 8. Table of One-Way ANOVA of differences among age level with depression

Age category	N	Mean	Std. Deviation		Sum of the squares	*Df*	F	Sig
18-23	141	13.09	5.161	Between Groups	123.617	4	1.301	.270
24-29	87	11.98	4.292	Within groups	6414.147	270		
30-35	24	11.75	6.102					
36-41	16	13.25	2.864					
42-47	7	10.43	4.504					
Total	275	12.56	4.885					

One Way ANOVA were conducted to compare mean scores of age in depression scores. The result on table indicates depression; (F (4,270) = 1.301, P=.270 P>.05). And as the table shows there is no statistically significant difference in depression among the age categories of the respondents.

Table 9. Table of One-Way ANOVA of differences among marital status in the level of anxiety

	N	Mean	Std. Deviation		Sum of the squares	Df	F	Sig
Married	101	11.13	4.987	Between Groups	137.019	3	6.061	.001
Unmarried	160	13.21	4.432	Within Groups	22.608	271		
Divorced	10	16.20	5.245					
Widowed	4	13.50	9.469					
Total	275	12.56	4.885					

One Way ANOVA were conducted to compare mean scores of married, unmarried, divorced and widowed respondents in depression. The result on table indicates depression; (*F*

(3,271) = 6.061, *P*=.001, *P*>.05. as the table indicate among marital status there is statistically significant difference. The post hoc result is annexed.

Table 10. Table of One Way ANOVA to differences in depression by the level of educational level

	N	Mean	SD		Sum of squares	Df	F	Sig
Illiterate	21	11.24	4.711	Between groups	121.878	5	1.022	.405
1-8	109	13.28	4.931	Within groups	6415.882	269		
9-10	70	12.49	4.895					
11-12	30	11.93	4.806					
Diploma	43	12.02	4.930					
degree and above	2	11.00	1.414					
Total	275	12.56	4.885					

One Way ANOVA were conducted to compare mean scores of educational status in depression score. The result on table indicates depression; (*F* (5,269 = 1.022, *P*=.405, *P*>.05. as the table indicate among educational status there is no statistically significant difference.

Table 11. Level of One Way ANOVA to difference in depression by the level of pregnancy status

	N	Mean	SD		Df	F	Sig
First trimester	31	11.84	5.526	Between groups	2	1.347	.262
Second trimester	110	12.17	4.729	Within groups	272		
Third trimester	134	13.04	4.843				
Total	275	12.56	4.885				

One Way ANOVA were conducted to compare mean scores of pregnancy trimester in depression score. The result on table indicates depression; (F (2,272 = 1.347, P=.262, P>.05. as the above table 11 indicate among pregnancy trimester there is no statistically significant difference.

Table 12. Independent Sample t-test for Employment Status in the Level of Depression

Respondents employment status	N	Mean	SD	Df	t	Sig
Employee	124	11.81	4.873	237	-2.337	.587
house wives	151	13.18	4.822		-2.335	

An independent sample t-test was completed to compare depression severity for employment and housewives respondents. As shown in table 13, results from an independent sample t-test revealed that there was no statistically significant difference on depression scores for employee (M=11.81, SD=4.873), and for housewives (M=13.18, SD=4.822): df (237) = -2.337, .587 P≥0.05. So employed and housewives were reported there is no statistically difference in depression symptoms.

Table13: Prevalence of Anxiety among Pregnant Women as Measured by HADS

Level	Frequency	Percent
Normal	**45**	**16.4**
Mild	**42**	**15.3**
Moderate	**119**	**43.3**
Severe	**69**	**25.1**
Total	**275**	**100.0**

Table 14. Level of Anxiety among Pregnant Women as Measured by HADS by Age

age of the respondents		Frequency	Percent
18-23	Normal	24	17.0
	Mild	16	11.3
	Moderate	59	41.8
	Severe	42	29.8
	Total	141	100.0
24-29	Normal	12	13.8
	Mild	21	24.1
	Moderate	37	42.5
	Severe	17	19.5
	Total	87	100.0
30-35	Normal	5	20.8
	Mild	3	12.5
	Moderate	10	41.7
	Severe	6	25.0
	Total	24	100.0
36-41	Normal	3	18.8
	Moderate	10	62.5
	Severe	3	18.8
	Total	16	100.0
42-47	Normal	1	14.3
	Mild	2	28.6
	Moderate	3	42.9
	Severe	1	14.3
	Total	7	100.0

Among those age 18-23, 42(29.8%) indicated severe level of anxiety.

Table 15. Level of Anxiety among Pregnant Women as Measured by HADS by Marital status

Marital status		Frequency	Percent
-Married	Normal	22	21.8
	Mild	17	16.8
	Moderate	46	45.5
	Severe	16	15.8
	Total	101	100.0
Unmarried	Normal	21	13.1
	Mild	24	15.0
	Moderate	69	43.1
	Severe	46	28.8
	Total	160	100.0
Divorced	Normal	1	10.0
	Mild	1	10.0
	Moderate	3	30.0
	Severe	5	50.0
	Total	10	100.0
Widowed	Normal	1	25.0
	Moderate	1	25.0
	Severe	2	50.0
	Total	4	100.0

The above table indicates that a greater percentage of divorced and widowed women had severe level of anxiety

Table 16. Level of Anxiety among Pregnant Women as Measured by HADS by educational level

Educational status of the respondents		Frequency	Percent
Illiterate	Normal	5	23.8
	Mild	6	28.6
	Moderate	7	33.3
	Severe	3	14.3
	Total	21	100.0
1-8	Normal	14	12.8
	Mild	14	12.8
	Moderate	47	43.1
	Severe	34	31.2
	Total	109	100.0
9-10	Normal	11	15.7
	Mild	8	11.4
	Moderate	34	48.6
	Severe	17	24.3
	Total	70	100.0
11-12	Normal	5	16.7
	Mild	8	26.7
	Moderate	11	36.7
	Severe	6	20.0
	Total	30	100.0
Diploma	Normal	10	23.3
	Mild	5	11.6
	Moderate	19	44.2
	Severe	9	20.9
	Total	43	100.0
Under graduate and above	Mild	1	50.0
	Moderate	1	50.0
	Total	2	100.0

On the above table 16, the prevalence of anxiety among grade level 1-8 pregnant women those who indicated a severe level of anxiety are 34(31.2%).

Table 17. Level of Anxiety among Pregnant Women as Measured by HADS by Trimester

Pregnancy trimester		Frequency	Percent
First trimester	Normal	7	22.6
	Mild	6	19.4
	Moderate	11	35.5
	Severe	7	22.6
	Total	31	100.0
Second trimester	Normal	15	13.6
	Mild	19	17.3
	Moderate	52	47.3
	Severe	24	21.8
	Total	110	100.0
Third trimester	Normal	23	17.2
	Mild	17	12.7
	Moderate	56	41.8
	Severe	38	28.4
	Total	134	100.0

The prevalence of anxiety among third trimester pregnant women those who indicated a severe level of anxiety are 38(28.4%).

Table 18. Level of Anxiety among Pregnant Women as Measured by HADS by employment status

Respondents Employment Status		Frequency	Percent
Employee	Normal	20	16.1
	Mild	21	16.9
	Moderate	59	47.6
	Severe	24	19.4
	Total	124	100.0
House wives	Normal	25	16.6
	Mild	21	13.9
	Moderate	60	39.7
	Severe	45	29.8
	Total	151	100.0

The prevalence of anxiety among house wives pregnant women those who indicated a severe level of anxiety are 45(29.8%).

Table 19. Table of One-Way ANOVA of differences among age group in the level of anxiety

Age category	N	Mean	SD		Sum of the squares	*Df*	F	Sig
18-23	141	12.49	5.027	Between Groups	61.640	4	.701	.592
24-29	87	11.67	4.164	Within groups	5931.320	270		
30-35	24	11.71	5.137					
36-41	16	13.06	3.642					
42-47	7	11.14	4.018					
Total	275	12.16	4.677					

One Way ANOVA were conducted to compare mean scores of age in anxiety scores. The result on table indicates anxiety; (F (2,270) = .701, P=..592 P >.05). And as the table shows there is no statistically significant difference on anxiety scores for age categories of the respondents.

Table 20. Table of One-Way ANOVA of differences among marital status in the level of anxiety

	N	Mean	SD		Sum of the squares	Df	F	Sig
Married	101	11.13	4.755	Between Groups	205.701	3	3.211	.024
Unmarried	160	13.21	4.386	Within Groups	5787.259	271		
Divorced	10	16.20	4.917					
Widowed	4	13.50	9.129					
Total	275	12.56	4.677					

The above table 20 one way ANOVA conducted to compare mean scores of married, unmarried, divorced and widowed respondents in anxiety. The result on table indicates anxiety; (*F* (3,271) = 3.211, *P*=.024, *P*>.05. as the table indicate among marital status there is statistically significant difference.

The post hoc result is annexed.

Table 21. Table of One-Way ANOVA of differences among educational status in the level of anxiety

	N	Mean	SD		Sum of squares	Df	F	Sig
Illiterate	21	10.67	3.440	Between groups	141.626	5	1.302	.263
1-8	109	12.91	4.604	Within groups	5851.334	269		
9-10	70	12.14	4.688					
11-12	30	11.37	4.944					
Diploma	43	11.63	5.113					
degree and above	2	11.00	1.414					
Total	275	12.16	4.677					

One Way ANOVA were conducted to compare mean scores of educational status in anxiety score. The result on table indicates anxiety; (*F* (5,269 = 1.302, *P*=.263, *P*>.05. as the table indicate among educational status there is no statistically significant difference.

Table 22. Table of One-Way ANOVA of differences among trimester group in the level of anxiety

	N	Mean	SD		Df	F	Sig
First trimester	31	11.48	4.67	Between groups	2	.487	.615
Second trimester	110	12.08	4.23	Within groups	272		
Third trimester	134	12.38	5.03				
Total	275	12.16	4.67				

One Way ANOVA were conducted to compare mean scores of pregnancy trimester in anxiety score. The result on table indicates anxiety; (*F* (2,272 = .487, *P*=.615, *P*>.05. as the table indicate among pregnancy trimester there is no statistically significant difference.

Table 23. Independent Sample t-test for Employment Status in the Level of anxiety

Respondents employment status	N	Mean	SD	Df	t	Sig
Employee	124	11.69	4.49	237	-1.53	.362
house wives	151	12.55	4.8		-1.54	

An independent sample t-test was completed to compare anxiety severity for employment and housewives respondents. As shown in table 23, results from an independent sample t-test revealed that there was no statistically significant difference on anxiety scores for employee (M=11.69, SD=4.49), and for housewives (M=12.55, SD=4.8): df (237) = -1.53, -154, .362 P≥0.05. So employed and housewives were reported there is no statistically difference in anxiety symptoms.

4.2. Results of Interview

Apart from the quantitative approach, the researcher in the present study obtained additional information through qualitative method of investigation.

The researcher used thematic approach to guide overall analysis of qualitative data collected through semi-structured interview questions. The data obtained from interview were transcribed and grouped into similar category by giving them codes and were groups based on themes. Using thematic analysis the findings are presented as follows.

Interview guideline

In this investigation, the interview was collected through semi-structured interview with ten participants. The responses were recorded with the help of tape recorder and notes were taken to reduce biases while response is transcribed. The organized interview is analyzed thematically as follows:

The influence of depression in relationship with others

Avoiding interaction: Most of participants have low relationship with people when they felt depressed. Most of participants responded that when they were depressed, they show reduced interests in having relationships with others and tend to lack interest in sharing their feelings with colleagues, friends, family, or partners.

For instance:

One of the respondents said "*when I am depressed, my mood will change and I usually avoid talking with people and give deaf ear to people when they call me by name* "". Another respondent said "*when I feel depressed, I stay away from my friends and families and usually I also switch off my mobile phone to make sure that nobody reaches me by phone.*" But not all the participants have dealt with the problems of depression through avoiding interaction. For instance, one participant stated "*I share my feelings with my friends, we drink coffee, and I feel relaxed."* Furthermore, another respondent stated *"I start crying*".

Problems related to pregnancy

Irritability

Most of the respondents are irritated easily. One respondent said, "*Following pregnancy when my family speaks negative words, I smash glasses on the floor".* The other respondent said "*Following my pregnancy, I get easily annoyed and start crying*." Another respondent stated: "I insult my husband and start beating him*."* Only one respondent had a different way of expressing her anger. She said: "*I had a very good control over my anger when my partner provoked me in many ways during my pregnancy."*

Irregularity in Sleep

Most respondents said they had faced sleep disturbance during pregnancy.

For instance,

One respondent said: "*I did not sleep for the whole night because of being anxious about my unborn baby*." Similarly, another respondent said: "*I never slept well from the very days of pregnancy.*" Another respondent said *"I sleep too much when I feel worried about the*

pregnancy". One respondent said: "*I walk up in the middle of night from my sleep and start struggling to sleep though I fail to sleep again*."

Influence of anxiety in relationship with others

Seeking Social Interaction

For instance:

Participants described most pregnant women want to talk with people when they feel anxiety. They need emotional support, for instance, calling, talking with elders, family, and partner or husband when they feel anxious. One participant described it by saying: *"I have no good relationship with my neighbors, colleagues and friends. I even forget to say hi and they don't understand me.*

Motivation to work

Low inspiration to work

Most pregnant women responded that they do not feel like working when they are depressed. Yet, some other respondents reported that work helps them forget such feelings of depression.

For instance:

One respondent said: "*My colleagues understand me when I feel depressed and become absent from work*." Another respondent said: "*Because of the feeling of depression, I have resigned from my job.*" Again, another respondent said: "*I lost motivation for work. As a result, I was not as active as before when I was working my job*."

However, another respondent had a different view than the afore-mentioned points. She said: *"I feel comfortable when I am working at my workplace because it makes me forget my unwanted*

feelings." Similarly, one respondent said: "*I have better feelings at my work place than when I stay at home."*

Feeling of Anxiety among Pregnant Women

Dis-concentratedness

For instance:

Most of the respondents said when they feel anxious, they lack concentration. One respondent said: "When I feel anxious, I usually face lack of concentration. Because of this, my daily plans are imperiled."

Comments about one's behavioral change following pregnancy

Most pregnant women have behavioral change during their pregnancy. In this interview question most pregnant women acknowledged that there is behavioral change related to pregnancy and they have received comments from neighbors, friends, partners, colleagues and family.

For instance:

One respondent said: *"Yes I have a comment from my friends about my behavioral change and my partner was also getting irritated but a doctor told him about pregnancy related behavioral change then my partner started to understand me."* This behavioral change has an impact on their marriage.

Psychological problems and day-to-day activities

Most of the respondents said that psychological problems have influenced their day-to -day activities. One respondent described it saying: *"psychological problems have an impact and things will be better if psychologists are here because when you feel anxious, you need someone who understands you".* Similarly another respondent said "*there is influence related with anxiety and depression and I suggest that psychologists be available in health centers because if psychologists are in health centers, people can share their idea and they will be successful."* However, another respondent responded differently, she said *"I prefer praying or going to church, I don't think psychologists are needed"*

4.3. Brief Scale

Table 24: Coping Methods of Respondents

Mean score and SD. deviation as Measured by Brief Cope Scale (N=275)

	Mean*	Std. Deviation
Turning one's mind away.	**2.43**	**1.03**
Telling oneself "this is not real".	**2.38**	**1.04**
Using alcohol or other drugs to feel better.	**1.15**	**.39**
Getting emotional support.	**2.47**	**1.01**
Taking action to make the situation better.	**2.40**	**.97**
Refusing to believe what has happened.	**2.36**	**.99**
Looking something good in every situation.	**2.42**	**.98**
Watching TV, daydreaming, sleeping, or shopping	**2.52**	**1.03**
Expressing one's negative feelings.	**2.32**	**.95**
Feeling comfortable with one's own religion	**2.88**	**.95**
Getting advice or help from people what to do.	**2.36**	**1.08**
Thinking hard about what steps to take.	**2.20**	**.96**
Making fun of the situation.	**2.30**	**.99**

***(**Max. Possible Score=4**)**

Table 25: percentage among Respondents as measured by Brief Cope Scale (N=275)

Coping Methods	Not used		Used to a small degree		Used to a medium degree		Used a lot	
	F	%	F	%	F	%	F	%
Turning one's mind away.	**60**	**21.8**	**89**	**32.4**	**73**	**26.5**	**53**	**19.3**
Telling oneself "this is not real".	**67**	**24.4**	**86**	**31.3**	**73**	**26.5**	**49**	**17.8**
Using alcohol or other drugs to feel better.	**237**	**86.2**	**35**	**12.7**	**3**	**1.1**	**0**	**0**
Getting emotional support.	**56**	**20.4**	**86**	**31.3**	**81**	**29.5**	**52**	**18.9**
Taking action to make the situation better.	**54**	**19.6**	**97**	**35.3**	**83**	**30.2**	**41**	**14.9**
Refusing to believe what has happened.	**64**	**23.3**	**86**	**31.3**	**86**	**31.3**	**39**	**14.2**
Looking something good in every situation.	**58**	**21.1**	**83**	**30.2**	**94**	**34.2**	**40**	**14.5**
Watching TV, daydreaming, sleeping, or shopping	**53**	**19.3**	**85**	**30.9**	**79**	**28.7**	**58**	**21.1**
Expressing one's negative feelings.	**58**	**21.1**	**106**	**38.5**	**75**	**27.3**	**36**	**13.1**
Feeling comfortable with one's own religion	**27**	**9.8**	**61**	**22.2**	**106**	**38.5**	**81**	**29.5**
Getting advice or help from people about what to do.	**80**	**29.1**	**66**	**24**	**80**	**29.1**	**49**	**17.8**
Thinking hard about what steps to take.	**75**	**27.3**	**100**	**36.4**	**70**	**25.5**	**30**	**10.9**
Making fun of the situation.	**66**	**24**	**96**	**34.5**	**75**	**27.3**	**38**	**13.8**

As presented on the above table Brife cope, out of 275 respondents 81(29.5%) with (M=2.88, SD= 0.95) reported that religious and spiritual activities are their most common coping method. However, the least used coping method among the respondents was drug and alcohol use.

CHAPTER FIVE : DISCUSSION

This investigation focused on anxiety and depression among pregnant women and their coping methods with reference to two health centers.

5.1. Prevalence of pregnancy related anxiety

The current study result indicates the prevalence of depression and anxiety in two health centers among 275 respondents. The study indicated most respondents had severe and moderate level of anxiety and depression. Based on the analysis of HADS, 121(44%) and 82(29.8%) of the research participants showed moderate and severe level of depression respectively. The study also indicated that the prevalence of anxiety were moderate for 119(43.3%) participants and severe for 69(25%) respondents. Hence, it seems to share the results of a study by Mersha et al. (2018) stated that the prevalence of anxiety and depression is higher in developing countries. Prevalence studies in developed countries show a prevalence of 10 –15 % for depression and anxiety during pregnancy (Verbek, Arjadi, Vendrik, Burger & Berger 2015). Similar study by Belay, Moges, Hiksa, & Arado, (2018) in developed country the result of anxiety and depression indicates, 28.5% in China, 14.9 % in Italy, 13.2% in Germany, and 10.9% in Turkey.

Whereas, women from developing countries are exposed to poor socio-economic status, unintended pregnancy and gender based violence. The study by Biratu & Haile (2015) high level of anxiety and depression were reported from developing countries, 29 % in Bangladesh, 25 % in Pakistan, 20.2 % in Brazil, 39 % in South Africa Cape Town, 38.5 % in South Africa KwaZulu-Natal and 39.5 % in Tanzania. Moreover, the results of this study also supported by the study conducted by Getinet et al (2018) stated that the percentages of anxiety and depression in some

selected towns in Ethiopia are: 23% in Gondar, 25.6% in Shashemene, 28.7% in Sodo district, 31.1% in Maichew, 31.2% in Adama, 11.8% in Debretabor, 19.9% in Gilgel Gibe, and 17.9% in Afar Dubti.

Many things could be said about the possible explanation for differences between the current study and the results from other studies. However, the researcher generally expected that the difference occurred due to the socio-cultural factors.

According to Assefa et al. (2011, cited in Andebirhan 2014) the prevalence of antenatal depression disorder was found to be 31.2% in Adama hospital. However, in that study the researchers used the Beck Depression Inventory.

The present result shows that age, marital status, educational status and economic status are factors that influence the prevalence of anxiety and depression. Likewise, the study by Best Start (2017) showed that pregnancy after the age of 35 may lead to miscarriage. The other studies Belay et al (2018), Sharma et al (2017) stated that social support, marital status, and age can be factors that exacerbate anxiety and depression. However, Bisetegn et al. (2016) stated that demographic variables such as age, education and occupation were not associated with antenatal depression. The researcher generally assumed that the differences with another study occurred due to the fact that the instrument used by the researcher is different from the other researcher. That is, the researcher used the Amharic version of Hospital Anxiety Depression Scale.

Depression is commonly onset in the early 20's of the life and most housewives who are financially dependent on their partner that could precipitate the occurrence of depression in this age group (Buko et al. 2019)

5.2. The Influence of Depression and Anxiety on Pregnant Women

Pregnancy related depression and anxiety have an effect on day to day activities of pregnant women. The impact has implications on themselves, their social life, and their work life. It also causes loss of sleep, and loss of intimacy. Hence it seems to share the results of a study conducted by Biaggi, et al., (2016) the influence of anxiety and depression lead a women to have poor marital relationship, stressful life events, a negative attitude towards the pregnancy, and lack of social interaction or support. The present study also said antenatal depression and anxiety affect the day to day activities of the pregnant women by influencing the relationship with others, by being irritable, irregularity in sleep, low motivation in such activities, lack of concentration and behavioral changes like being moody. Those are shown among respondents in the present study which is manifested by the influence of depression and anxiety. Another study by Pitso, et al. (2016) also support the current study, the literature said that when the women experiences anxiety and depression they start isolation from her friends due to difficulty in pregnancy, emotional experience which lead to disappointment, anger, depression, feelings of being trapped, loneliness, anxiety and insecurity.

The findings that are seen in prenatal anxiety and depression in pregnancy Austria (n.d.) indicate some pregnant women develop anxiety or depression which affects their daily life and functioning. Antenatal depression and anxiety are: persistent and generalized worry, often focused on fears for the health or well-being of the of the baby, feeling constantly sad, or crying for no obvious reason and being nervous, feeling constantly tired and lacking energy, sleeping too much or not sleeping healthy, loss of intimacy, being easily annoyed or irritated and contemplating suicide. In this research finding, most participants said that they were losing interests to discuss with friends or

partner when they are anxious and depressed. Because of this behavioral change, one respondent's marriage was at risk. Following the impact of anxiety and depression, there is emotional disturbance, irritation, and feeling of un-worthiness that makes them to offensive to others.

Similarly the study by Shahhosseini, et al. (2015) stated the mental effect of anxiety during pregnancy has a relation with mental disorders, emotional problems and lack of concentration. Hence, the study by Martini, et al. (n.d) stated that high level of maternal anxiety and psychological distress, the problem can have an effect on the offspring and can identify with early behavioral and emotional problems. Externalizing problems such as attention deficit/hyperactivity disorder (ADHD), conduct Disorder (CD), and oppositional defiant disorder (ODD), behavioral/emotional problems and childhood anxiety were more frequently diagnosed in the offspring. These offspring's outcomes have also been shown to increase the risk for other offspring childhood and adolescent disorders such as anxiety, mood, somatoform, and substance use disorders. Many things could be said about the possible explanation for differences between the current study and the results from other studies. However, the researcher generally expected that the difference occurred because of biological effects and the current study more focused on the psychological impacts of anxiety and depression.

5.3. Demographic effect

The current study result shows with age ranges from 18-23, in divorced respondents, 1-8grade levels, among third trimester and among housewives were indicated severe level of anxiety and depression. Similarly the study by Getinet et al. (2018) stated age, marital status, income, occupation and unplanned pregnancy associated with antenatal depression and anxiety. Another study by Belay et al. (2018) younger age, low income, unemployment, single marital

status, low educational status, marital conflict and lack of social support, unplanned pregnancy are the most risk factors for antenatal depression and anxiety. As most literatures said pregnancy less than 20 ages has risk than other. Another study by Madhavanprabhakaran, (2015) stated highest prevalence of 38% severe anxiety was reported during third trimester.

Related with this in the current study the result of depression and anxiety were high among divorced and widowed pregnant women. The levels of depression and anxiety were also among the less educated and housewives respondents. Correspondingly, Getinet, et al. (2018) stated that women who were unmarried were more likely to be depressed than married mothers. Women in second and third trimester of pregnancy have high risk to develop maternal depression.

However, Pregnancy either induces or exacerbates pre-existing stress and in turn stress seems to have a negative effect on pregnancy, especially in the first trimester. The first trimester indicates the highest stress level and also the highest rate of pregnancy loss occur (Santvana et al. 2005). Whereas, the study by Santavana et al. (2005) seems difference with the present study, for this difference the researcher generally expected that the difference occurred due to socio-demographic factor and the instrument that were used by the investigator.

5.4. Coping Method of Respondents

The present study revealed that religious or spiritual activities are the most frequently used coping method in addition to spiritual activities self-distraction like watching TV, sleeping, walking and seeking emotional support are preferred by respondents. Hence it seems to share the results of a study conducted by Rabia et al. (2017) Out of the 400 pregnant women with anxiety, and depression, most of them were trying to deal with the situation by self-distraction such as sleeping, shopping, and watching television.

Similarly, the study by Hamilton and Lobel (2008) indicated that frequently used coping method was spiritual coping. The other frequently used coping methods in this study were watching TV, reading books, sleeping and shopping. In addition to the coping methods mentioned earlier, they preferred walking, playing with children, shopping, sleeping, chatting and hanging out with friends. Similar studies by Kartal and Oskay (2017) show that, 60.9% of pregnant women chat with relatives and friends, 36.9% listen to music, 29.3% engaged in handicraft and embroidery and 27.1% read books.

However, the study by Gouronti et al. (2013) indicated that some women used maladaptive coping strategies to combat depression and anxiety. A maladaptive coping strategy includes; denials, behavioral disengagement, self-blame, self-distraction, and substance use. The possible explanation for this difference with present study may be the predominantly religious nature of the Ethiopian people and the deeply rooted social and cultural influences of the people over the respondents.

Regarding to social support, antenatal depression was significantly higher among pregnant mothers who had poor social support than women who had good social support. This might be due to having poor social support may lead to increased psychological distress and on the other hand, good social support is vital for those with good health in prevention of depression (Buko et al. 2019). In the present study spiritual activities are more prSeferable among respondents and the study by However, the researcher generally assumed that the differences occurred due to the variation in the study area and the instruments that were used in the researcher are different.

CHAPTER SIX : SUMMARY, CONCLUSION AND RECOMMENDATIONS

The research questions and respective findings and results of the study are considered in identifying major points of the summary, conclusions and recommendations.

6.1. Summary

Although anxiety and depression are common for most women during pregnancy, if the level of anxiety and depression is above the expected level it can be a risk for both the mother and fetus.

The researcher used mixed research design to guide the process and collect the data using both qualitative and quantitative methods.

The objective of this investigation was to answer the following questions

1. What is the prevalence of anxiety and depression among pregnant women?
2. How do depression and anxiety influence day to day activities of pregnant women?
3. How do pregnant women cope with depression and anxiety during pregnancy?

To answer these questions 275 participants were selected. The quantitative methods of data analysis were collected through Hospital Anxiety and Depression Scale (HADS) and Brief Cope Scale. The quantitative data were analyzed through descriptive statistical techniques such as frequency distributions, percentage and mean whereas the qualitative data was gathered through interview guide.

The findings of this study are:

1. Prevalence of anxiety among 275 pregnant women indicated that 43.3% had moderate and 25.1% severe anxiety level. Regarding depression, 44% showed moderate and 29.8% severe level of depression.
2. Depression and anxiety had an influence on day to day activities of pregnant women. Most pregnant women don't want to talk with people, avoid intimacy with their partners, etc. Due to depression, some behavioral changes influence their relationship with relatives, neighbors, partner, friends and colleagues. The behavioral issues that are identified are – getting easily irritated, crying, sleep disturbance, and emotional sensitivity.
3. Most pregnant women highly preferred religious activities to cope from anxiety and depression for instance: praying, going to church and self-distraction activities such as drinking coffee with neighbors, friends and family.

6.2. Conclusion

The prevalence of depression and anxiety in the present study shows that majority of respondents indicated moderate level of depression (44%) and anxiety (43%). The prevalence of anxiety and depression among 18-23 ages, divorced, grade level fom1-8, house wife and on third trimester indicated severe level of depression.

The findings indicated that anxiety and depression have an impact on the day to day activities of pregnant women. For instance, behavioral changes such irritability, lack of relationships with friends and families, and lack of motivation for work. So, this impedes the smooth functioning of pregnant women in their daily routine.

Regarding the coping methods, most pregnant women prefer religious activities to cope with anxiety and depression.

The researcher concluded that the reason religious activity selected highly among respondents is because of the influence of the religion and socio-cultural factors. The study also shows the importance of counselor to pregnant women for the well-being of both mother and fetus.

6.3. Recommendations

From the findings of the study the investigator suggest as follows

- It is important for the public and health workers to be aware the magnitude of antenatal depression and anxiety.
- Health centers should be encouraged to screen a pregnant woman who shows the symptom of anxiety and depression, and provide counseling either in the form of individual or group therapy. On the other hand the health professionals have to be trained in this field to be aware of the symptoms of antenatal depression and anxiety.
- Health centers have to hire psychologists in order to maintain the wellbeing of mother and infant.

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Annex

Marital status with depression

(I) marital status	(J) marital status	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Married	Unmarried	-2.084*	.604	.004	-3.65	-.52
	Divorced	-5.071*	1.576	.008	-9.15	-1.00
	Widowed	-2.371	2.424	.762	-8.64	3.89
Unmarried	Married	2.084*	.604	.004	.52	3.65
	Divorced	-2.987	1.550	.219	-6.99	1.02
	Widowed	-.287	2.407	.999	-6.51	5.93
Divorced	Married	5.071*	1.576	.008	1.00	9.15
	Unmarried	2.987	1.550	.219	-1.02	6.99
	Widowed	2.700	2.813	.772	-4.57	9.97
Widowed	Married	2.371	2.424	.762	-3.89	8.64
	Unmarried	.287	2.407	.999	-5.93	6.51
	Divorced	-2.700	2.813	.772	-9.97	4.57

*. The mean difference is significant at the 0.05 level.

Marital status with Anxiety

(I) marital status	(J) marital status	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
Married	Unmarried	-1.448	.587	.068	-2.97	.07
	Divorced	-3.642	1.532	.084	-7.60	.32
	Widowed	-1.842	2.356	.863	-7.93	4.25
Unmarried	Married	1.448	.587	.068	-.07	2.97
	Divorced	-2.194	1.506	.465	-6.09	1.70
	Widowed	-.394	2.339	.998	-6.44	5.65
Divorced	Married	3.642	1.532	.084	-.32	7.60
	Unmarried	2.194	1.506	.465	-1.70	6.09
	Widowed	1.800	2.734	.913	-5.27	8.87
Widowed	Married	1.842	2.356	.863	-4.25	7.93
	Unmarried	.394	2.339	.998	-5.65	6.44
	Divorced	-1.800	2.734	.913	-8.87	5.27

Psychological Problems and Cope Methods among Pregnant Women in two Bole Sub City Health Service Providers

Appendix

Addis Ababa University

College of Education and Behavioral study

School of psychology

Dear participants. My name is Leyuwork Antonious a graduate student in the school of psychology, Addis Ababa University, MA degree in counseling psychology. The purpose of this questionnaire is to investigate the prevalence, impact and method of anxiety and depression among pregnant women. I would like to thank you for your decision to take a part on this research. Your honest information is important for the usefulness of the research. Give an immediate response and be discouraged from thinking too long about their answers. All questionnaires are completed anonymously. You don't have to write your name / information/ and there is no right or wrong answers, indicate only your right feeling.

Answer the check mark (-) in the box that expresses your right feelings. Do not check more than one box per question. Please answer all the questions as truthfully as possible.

Thank you for your time and effort!

Psychological Problems and Cope Methods among Pregnant Women in two Bole Sub City Health Service Providers

Background information

Demographic information of pregnant women

You are requested to give answers genuinely to the following questions. Please give your answers by putting (x) in the box in front of your choice.

1. In what age group are you in?
    1. 18-23
    2. 24-29
    3. 30-35
    4. 36-41
    5. 42-47
2. What is your marital status?
    1. Married
    2. Unmarried
    3. Divorced
    4. Widowed
3. What is your educational level?
    1. Illiterate
    2. 1-8
    3. 9-10
    4. 11-12
    5. Diploma
    6. Undergraduate and above
4. Pregnancy trimester
    1. First trimester (1-4)
    2. Second trimester (5-7)
    3. Third trimester (8-9)
5. Employment status
    1. Employee
    2. Housewife

መመሪያ፡ ለሚከተሉት ጥያቄዎች በእርስዎ ጊዜያዊ አጠቃላይ መረጃ ላይ የሚያጠነጥን ሲሆኑ እርስዎን ይገልፅልኛል ብለዉ የሚያስቧቸዉ ላይ በተዘጋጀዉ ሳጥን ዉስጥ (x) በማድረግ ምላሽዎን ያሰቀምጡ።

1. ዕድሜዎ ስንት ነዉ
    1. 18-23
    2. 24-29
    3. 30-35
    4. 36-41
    5. 42-47
2. የጋብቻ ሁኔታ
    1. ያገባ
    2. ያላገባ
    3. በ ፍቺ ላይ ያለ
    4. ባል በ ሞት የተለየ
3. የትምህርት ደረጃ
    1. ማንበብ መፃፍ የማይችል
    7. 1-8
    8. 9-10
    9. 11-12
    10. ዲፕሎማ
    11. ከፍተኛ ትምህርት የገባ እና ከዛም በላይ
4. የእርግዝና ወቅት
    1. የመጀመሪያ ወቅት (1-4)
    2. ሁለተኛ ወቅት (5-7)
    3. ሦሥተኛ ወቅት (8-9)
5. የስራ ሁኔታ
    1. ሠራተኛ
    2. የቤት እመቤት

Hospital Anxiety and Depression Scale (HADS)

Tick the box beside the replay that is closest to how you have been feeling in the past week.

Don't take too long over you replies: your immediate is best.

D	A		D	A	
		I feel tenses or 'wound up'			**I feel as if I am slowed down:**
	3	Most of the time	3		Nearly all the time
	2	A lot of time	2		Very often
	1	From time to time, occasionally	1		Sometimes
	0	Not at all	0		Not at all
		I still enjoy the things I used to enjoy			**I get a sort of frightened feeling like 'butterflies' in the stomach:**
0		Definitely as much		0	Not at all
1		Not quite so much		1	Occasionally
2		Only a little		2	Quite often
3		Hardly at all		3	Very often
		I get a sort of frightened feeling as if something awful is about to happen:			**I have lost interest in my appearance (dressing, eating)**
	3	Very definitely and quite badly	3		Definitely
	2	Yes, but not too badly	2		I don't take as much care as I should
	1	A little, but it doesn't worry me	1		I may not take quite as much care
	0	Not at all	0		I take just as much care as ever
		I can laugh and see the funny side of things:			**feel restless as I have to be on the move:**
0		As much as I always could		3	Very much indeed
1		Not quite so much now		2	Quite a lot
2		Definitely not so much now		1	Not very much
3		Not at all		0	Not at all
		Worrying thoughts go through my mind:			**I look forward with enjoyment to things:**
	3	A great deal of the time	0		As much as I ever did
	2	A lot of the time	1		Rather less than I used to
	1	From time to time, but not too often	2		Definitely less than I used to
	0	Only occasionally	3		Hardly at all
		I feel cheerful:			**I get sudden feelings of panic:**

3		Not at all		3	Very often indeed
2		Not often		2	Quite often
1		Sometimes		1	Not very often
0		Most of the time		0	Not at all
		I can sit at ease and feel relaxed:			**I can enjoy a good book, walk or radio or TV program:**
	0	Definitely	0		Often
	1	Usually	1		Sometimes
	2	Not often	2		Not often
	3	Not at all	3		Very seldom

Psychological Problems and Cope Methods among Pregnant Women in two Bole Sub City Health Service Providers

Brief Cope Scale

These items deal with ways you have been coping with stress in your life. There are many ways to try to deal with problems. These items ask what you have been doing to cope with these problems. Each item says something about a particular way of coping.

Use these response choices. Try to rate each item separately in your mind from the others. Make your answers as true for you as you can.

1= I haven't been doing this at all
2= I've been doing this a little bit
3= I've been doing this a medium amount
4= I've been doing this a lot

Please give your answers by putting (x) in the box in front of your choice.

	1	2	3	4
I've been turning to work or other activities to take my mind off things.				
I've been saying to myself "this isn't real.				
I've been using alcohol or other drugs to make myself feel better.				
I've been getting emotional support from others.				
I've been taking action to try to make the situation better.				
I've been refusing to believe that it has happened.				
I've been looking for something good in what is happening.				
I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping				
I've been expressing my negative feelings.				
I've been trying to find comfort in my religion or spiritual beliefs.				
I've been trying to get advice or help from other people about what to do.				
I've been thinking hard about what steps to take.				
I've been making fun of the situation.				

የጭንቀት እና የቁዘማ (ሀዘን) መገምገሚያ መጠይቅ

ስነልቦና ብዙ በሽታዎች ላይ የራሱ የሆነ ሚና እንዳለዉ ታወቃል እናም ሀኪምዎ ሚሰማዎትን ስሜት ካወቁ በደንብ ሊረዳዎት ይችላሉ፡፡

ከዕርግዝናዎት ጋር ተያይዞ የተሰማዎትን ስሜት መሰረት በማድረግ የጠና ባለሙያው ቀጥሎ ለሚጠይቁዎት ጥያቄ ተገቢውን መልስ ይስጡ፡፡

በተቻለ መጠን ሲመልሱ ብዙ ጊዜ አይውሰዱ፣ ምናልባትም እንደተጠየቁ ወዲያዉኑ የመጣሎት መልስ ትክክለኛ ስሜትዎን ሊገልፅ ይችላል፡፡

1. የመጨነቅ ወይም የመወጠር ስሜት ምን ያህል ይሰማዎታል
   - በጣም ብዙ ጊዜ 3
   - ብዙጊዜ 2
   - አልፎ አልፎ 1
   - ምንም አይሰማኝም 0
2. ቀደም ሲል ያስደስቱዎ የነበሩ ነገሮች አሁን ምን ያህል ያስደስቱዎታል
   - አሁንም እንደድሮዉ ያስደስቱኛል 0
   - ከድሮዉ ትንሽ ቀንሶአል 1
   - በጥቂቱ ያስደስቱኛል 2
   - ጭራሽ አያስደስቱኝም 3
3. አንድ መጥፎ ነገር ሊያጋጥመኝ የተቃረበ ይመስል የፍርሀት ስሜት ይሰማዎታል
   - እጅግ በጣም ይሰማኛል 3
   - በጣም ይሰማኛል 2
   - በጥቂቱ ይሰማኛል 1
   - ምንም አይሰማኝም 0
4. መሳቅና የነገሮችን አስቂኝ ጎን ማየት ይችላሉ
   - አብዛኛዉን ጊዜ እችላለዉ 0
   - እንደድሮው ባይሆንም እችላለው 1
   - በጥቂቱ እችላለው 2
   - ምንም አልችልም 3
5. ጭንቀትን የሚያጭሩ ሀሳቦች በአእምሮዎ ምን ያህል ጊዜ ይመላለሳሉ
   - በጣም ብዙ ጊዜ 3
   - ብዙ ጊዜ 2
   - አብዛኛውን ጊዜ ባይሆንም አልፎ አልፎ 1
   - አንዳንዴ ብቻ 0
6. ደስተኛ ነዎት
   - ምንም ደስተኛ አይደለሁም 3
   - ብዙ ጊዜ ደስተኛ አይደለሁም 2
   - ብዙም ባይሆን ደስተኛ ነኝ 1
   - አብዛኛዉን ጊዜ ደስተኛ ነኝ 0
7. ተረጋግተዉ መቀመጥእና ዘና ማለት ይችላሉ
   - ሁሌም እችላለው 0
   - አብዛኛውን ጊዜ እችላለሁ 1
   - ብዙዉን ጊዜ አልችልም 2
   - ምንም አልችልም 3

8. ስራዎን ሲያከናውኑ ወዘተ ፍጥነትዎ ምን ያህል የቀነሰ ይመስልዎታል

3. እጅግ በጣም ብዙ ጊዜ
2. በጣም ብዙ ጊዜ
1. አልፎ አልፎ
0. ምንም አልቀነሰም

9. ሆድ አካባቢ የሚሰማ የመደንገጥ ወይም የመሸበር ስሜት ይሰማዎታል

0. ምንም አይሰማኝም
1. አልፎ አልፎ
2. ብዙ ጊዜ
3. በጣም ብዙጊዜ

10. ለራስዎ ትኩረትን መስጠት ቀቁመዋል (አለባበስ፣አመጋገብ)

3. አዎን ምንም ትኩረት እየሰጠሁ አይደለም
2. የምፈልገዉን ያህል ትኩረት እየሰጠሁ አይደለም
1. ድሮ ከምሰጠው ትኩረት በጥቂቱ ያነሰ ትኩረትን እሰጣለሁ
0. ሁሌም የምሰጠውን ትኩረት እሰጣለሁ

11. አንድ ቦታ መሄድ ያለብዎ ይመስል ተረጋግቶ መቀመጥ ይቸግርዎታል

3. በጣም ብዙ ጊዜ ይቸግረኛል
2. ብዙጊዜ ይቸግረኛል
1. ብዙም አይቸግረኝም
0. ምንም አይቸግረኝም

12. በህይወትዎ ላይ መጪ ነገሮችን በደስታ ይጠብቃሉ

0. አዎ ሁሌም በተለመደው ወይም በድሮው መጠን እጠብቃለው
1. ከድሮው ወይም ከተለመደው በጥቂቱ ባነሰ መጠን እጠብቃለው
2. ከድሮው ወይም ከተለመደው ባነሰ መጠን እጠብቃለው
3. ምንም በደስታ አልጠብቅም

13. በድንገት የመደንገጥ ወይም የመሸበር ስሜት ይሰማዎታል

3. በጣም ብዙ ጊዜ ይሰማኛል
2. ብዙ ጊዜ ይሰማኛል
1. አልፎ አልፎ ይሰማኛል
0. ምንም አይሰማኝም

14. ራሶን በተለያዩ ነገሮች ያስደስታሉ (የእግር መንገድ ወይም ወክ በማድረግ፣ የራዲዮ፣ የቲቪ ፕሮግራሞችን በመከታተል)

0. አዎን ብዙ ጊዜ
1. ብዙም ባይሆን አዎ
2. አልፎ አልፎ
3. በጣም አልፎ አልፎ

ስለትብብሮ አመሰግናለው

Psychological Problems and Cope Methods among Pregnant Women in two Bole Sub City Health Service Providers

ይህ መጠይቅ የጭንቀት/ዉጥረት ችግር በሚገጥሞ ጊዜ የሚጠቀሙትን የመፍትሄ ዘዴን ለመለየት የሚያገለግል ሲሆን በሚሞሉበት ጊዜም ካለፉት/ ወቅት/ ወራት ጀምሮ ያሉትን ታሳቢነት በማድረግ የመፍትሄ ፍለጋስልቶችን በማስቀመጥ ይተግብሩ።

የሚወክሉት ቁጥሮች፡- 1. በፍፁም 2. አልፎ አልፎ 3. በመጠነኛ መልኩ 4. ብዙ ጊዜ

ጥያቄዎች	1	2	3	4
የተፈጠሩትን ችግሮች ላለማሰብ ስራ ላይ ወይም ሌሎች ተግባራት ላይ ራሴን አጠምዳለዉ				
ችግሮች ሲገጥሙኝ ዕዉነተኛ ነገር እንዳልሆነ ራሴን አሳምናለው				
ችግሮች በሚያጋጥሙኝ ጊዜ መጠጥ እና የተለያዩ ዕጾችን በመጠቀም ራሴን የተሻለ ስሜትእንዲሰማኝ አደርጋለው				
ለሚያጋጥሙኝ ችግሮች ከሌሎች ሠዎች የስሜት ድጋፍን (በርቺ...) እፈልጋለው				
የተፈጠሩትን ሁኔታች ለማስተካከል ወደ ድርጊት (ዉሳኔ) እገባለው				
ችግሮች ሲከሰቱ እንደተከሰቱ ከማመን ይልቅ የተፈጠረውነወ ችግር አለማሰብን እመርጣለዉ				
ከሚያጋጥመኝ ችግሮች ውስጥ በጎነገሮችን ለማየት እሞክራለው				
የተፈጠረውነወ ችግር ላለማሰብ የተለያዩ ነገሮችን አደርጋለው(ቲቪ፣ መፅሀፍ ማንበብ፣ ገበያ እሄዳለው፣እተኛለው)				
የሚሰሙኝን አሉታዊ ስሜቶች እገልፃለው				
በሐይማኖቴ መንፈሳዊ ነገሮችን ሳደርግ ምቾቶችን ይሰማኛል				
ምንማድረግ እንዳለብኝ ከሌሎች ሠዎች የምክር ደጋፍን ለማግኘት እሞክራለው				
ችግሮች ሲከሰቱ ምን ዐይነት እርምጃ መውሰድ እንዳለብኝ ለማሰብ ይከብደኛል				
በተፈጠረው ሁኔታ ላይ ከመጨነቅ ይልቅ መልካሙን ለማየት እሞክራለው				

ስለትብብሮ አመሰግናለው

Psychological Problems and Cope Methods among Pregnant Women in two Bole Sub City Health Service Providers

የድብርት እና ስጋት ተፅዕኖን በሚመለከት ለእርጉዝ ሴቶች የሚደረግ ቃለ-መጠየቅ

የዚህ ቃል መጠየቅ አላማ ይብርት እና ስጋት ምክንያት ነፍሰ-ጡር ሴቶች ምን አይነት ተፅዕኖ እንደሚደርስባቸው ለማወቅ የሚያስችል ሲሆን በተጨማሪም ለችግሩ መፍትሄ ለማበጀት ይረዳል

1. የድብርት ስሜት በሚሰማዎት ጊዜ በዙሪያዎት ከሚኖሩ ሰዎች ጋር ምን አይነት ችግር ያጋጥሞታል
2. ዕርግዝናን ተከትሎ ምን ዐይነት ችግሮች ተክተው ነበር
3. የስጋት/ ፍርሃት ስሜት ውስጥ በሚሆኑበት ጊዜ ከሠዎች ጋር ምን ዐይነት ግንኙነት አለዎት
4. የድብርት ስሜት በሚሰማኝ ጊዜ ስራ መስራት ያስጠላኛል

   አዎ ☐ አይደለም ☐

5. የስጋት ስሜት በሚሰማዎት ጊዜያት ዉስጣዊ ስሜትዎ ምን ይመስላል
6. ዕርግዝናዎን ተከትሎ ለሚመጡ የባህሪ መቀያየር ከሰዎች አስተያየት ደርሶታል (ከጉዋደኛ፣ ከስራ ባልደረባ...)
7. ይህ የባህሪ መቀያየር ዕርግዝናን ተከትሎ የመጣ ነው ብለው ያስባሉ

   አዎ ☐ አይደለም ☐

8. የስነ-ልቦና ችግር ከቀን ተቀን እንቅስቃሴየ ላይ ተፅዕኖ አምጥቶብኛል ብለው ያስባሉ

   አዎ ☐ አይደለም ☐

ስለትብብሮ አመሰግናለው

Psychological Problems and Cope Methods among Pregnant Women in two Bole Sub City Health Service Providers