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COLLEGE OF HUMANITIES

SCHOOL OF SOCIAL SCIENCES

COMMON PERINATAL MENTAL HEALTH PROBLEMS: CORRELATES, BIRTH OUTCOMES AND QUALITY OF LIFE AMONG WOMEN IN ACCRA

BY

BURUWAA ADOMAKO
(10092122)

THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF DOCTOR OF PHILOSOPHY DEGREE IN PSYCHOLOGY

DEPARTMENT OF PSYCHOLOGY

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DECLARATION

I, Buruwaa Adomako, author of this thesis, hereby declare that except for references to other people‘s works which have been duly acknowledged, the work presented here was done by me as a student of the Department of Psychology, University of Ghana, Legon, under the supervision of Professor Charity S. Akotia, Dr. Kingsley Nyarko and Dr. Joseph Osafo. This work has never been submitted in whole or in part for any degree elsewhere.

…………………………… ……………………….

Buruwaa Adomako **Date**

Student

…………………………… ……………………….

Professor Charity S. Akotia **Date**

Supervisor

…………………………… ……………………….

Dr. Kingsley Nyarko **Date**

Supervisor

…………………………… ……………………….

Dr. Joseph Osafo **Date**

Supervisor

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DEDICATION

To Akyede and Adom: may you rise higher

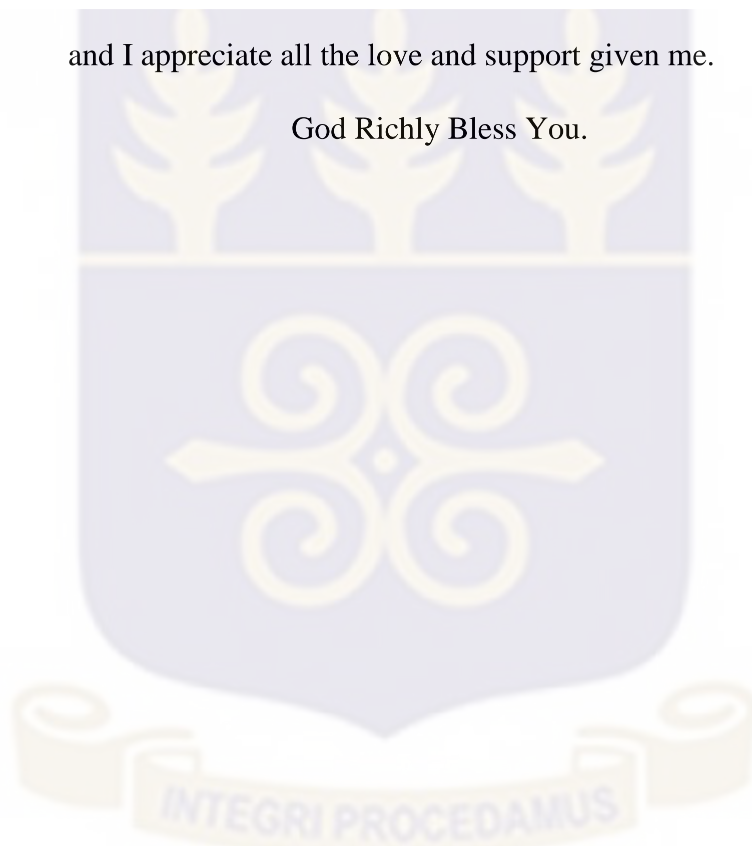
To my husband: Yebo

To my siblings – Serwaa Adomako and Abayie Adomako

And to my parents – Mr and Mrs Adomako.

All the sacrifices you made for me made this a reality. You are loved beyond measure and I appreciate all the love and support given me.

God Richly Bless You.



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Last but not least. My biggest cheer goes out to God Almighty, for giving me the grace to come this far. Father Take All The Glory!

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ABSTRACT

Mental health problems are a key determinant of maternal and child mortality and morbidity, but are not currently recognized in existing initiatives to promote perinatal mental health, resulting in poor health outcomes for women, their children, families and the society as a whole. The main aim of the study was to investigate the relationship between perinatal mental health problems, birth outcomes and quality of life among women in Accra. A three-phased iterative sequential mixed methods design was utilized for this research. The setting of this research was the Accra Metropolitan Area. Study One (1), was a phenomenological study with findings indicating, that pregnancy was considered a mix bag of joys and distress. Again, pregnancy was experienced on various levels; through the lens of mother, within family, and within the health system. Furthermore, there was low awareness of perinatal mental disorders. Finally, various coping mechanisms such as faith and engagement in productive activity were employed to deal with the perinatal mental health problems experienced. The results from Study One, fed into Study Two, which was a two-wave prospective panel study, consisting of one hundred and twenty two (122) purposively sampled women, who were within the perinatal period. Standardized instruments were administered at two time points (during pregnancy and after birth). Results of Study Two indicated that; there was a negative significant relationship between depressive symptomatology and quality of life during pregnancy and after birth with Social Support moderating these relationships. Intimate partner relationship however did not have any moderating effect on those same relationships. Also, there were no lagged effects between CMD's during pregnancy and quality of life after birth. A third study (Study Three) was conducted as a follow up to Study Two, in order to explore the contextual factors that might underlie some of its findings. It emerged from this study that participants' conceptions of childbirth were shaped by their cultural context. In addition, explanatory models accounting

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for CMD symptomatology were based on multilevel experiences, with a sense of self efficacy and beliefs in spirituality being used as coping mechanisms. It also emerged from Study Three, that constructions of intimate partner relationship reflected the male hegemony in Ghanaian cultural settings. A further exploration into perinatal mental health care services in Accra showed an unmet need as well as the essence of a culturally competent perinatal mental health service within Accra. The implications of the findings for clinical practice and policy, as well as the limitations and recommendations from this research are addressed.

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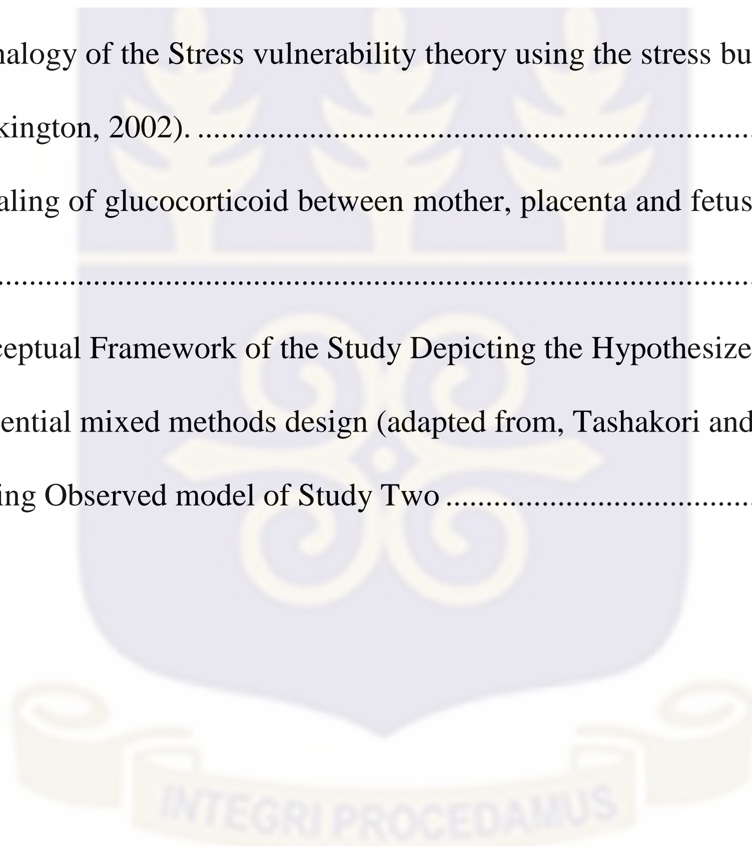

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CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Mental health problems are among the most widespread and serious and yet, unrecognized complications of the pregnancy and childbirth period (Howard, Molyneaux, Dennis, Rochat, Stein & Milgrom, 2014). Although motherhood is often conceptualized as a time of joy and celebration, for some, it becomes the cause of ill health and sometimes death. Pregnancy and childbirth are periods of increased physical and emotional demands on women and exert a profound impact on all aspects of their lives (Rallis, Skouteris, McCabe & Milgrom 2014). According to Halldorsdottir and Karlsdottir (1996), no other period involves such a myriad of experiences including stress, high likelihood of physical injury, the taking up of new responsibilities, vulnerability, pain and permanent role changes.

The term perinatal is subject to various definitions and generally refers to the period of heightened risk of mental health problems, such as depression and anxiety during pregnancy and after childbirth (Mares, Newman & Warren, 2011). It has been defined in different quarters as beginning at 22 weeks of gestation and ending seven days after birth (WHO, 1992) and extending to two years after childbirth, among others. However, in the field of mental health, it refers to the period stretching from conception to one year after birth (NICE, 2014). This definition was adopted with respect to this current study.

Mental health, as part of reproductive health, has largely been unrecognised and tangential with little attention paid to this essential aspect of human wellbeing (Howard et al., 2014). This is against the backdrop that the most common mental health problems, which according to O’Hara & Swain (1996) consist of depression and anxiety, are the prime cause

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of disability arising from neuropsychiatric disorders globally (Mathers, Lopez & Murray, 2006).

Perinatal mental health problems are global in nature and are considered a major public health challenge. Globally, it is estimated that 10% of pregnant women develop perinatal mental health problems as do 13% of women who have just given birth ("Maternal mental health", 2017). According to Faisal-Cury, Menezes, Araya and Zugaib (2010), worldwide, about 10-25% of women experience depression while 25-45% of women experience anxiety during the perinatal period (Rubertsson, Hellström, Cross & Sydsjö 2014). In developing countries, this rate is even higher with 15.6% of women experiencing mental health problems during pregnancy and 19.8% of women after childbirth (WHO, 2017). In sub-Saharan Africa, research by Aderibigbe and Gureje (1992) estimated the prevalence of common perinatal mental disorders to range from 12.5% to 27.1% in pregnancy with rates after birth ranging from 10.0% to 34.5% (Adewuya, Fatoye, Ola, Ijaodola & Ibigbami, 2005).

Perinatal mental health problems experienced by women include antenatal and postnatal depression and anxiety, postpartum psychosis and posttraumatic stress (Brockington, 2004). Women may also experience extreme fear of childbirth (tokophobia) (Hofberg & Brockington, 2000) as well as disorders of the mother-infant relationship (Brockington, 2004; Klier, 2006). Perinatal mental health problems may arise as a result of existing mental health difficulties carried over into the perinatal period and may be influenced by factors such as HIV, lack of agency in reproductive decisions and unplanned pregnancies. Perinatal mental health problems may also be developed or exacerbated during the perinatal period, as a consequence of complications in pregnancy and childbirth, such as; stillbirth, miscarriages, fistula and premature birth. Perinatal mental health problems after childbirth are associated with physical morbidity in mothers, including; urinary and faecal incontinence as well as unhealed abdominal or perineal wounds (WHO, 2009). The terms

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'perinatal' and 'maternal' are often used interchangeably when talking about a mother's mental health (Royal College of Obstetricians and Gynaecologists (UK), 2017). Although the prevalence rates of mental health disorder in the perinatal period, are roughly equivalent as in other periods in the reproductive calendar of the woman, this period, is especially important because depression has been found to be higher in the first few weeks after birth than at other times, and also up to forty percent (40%) of depressive symptoms have their beginnings during pregnancy (Austin, 2004). Also prolonged depression and anxiety can cause negative effects on the mother-child bond, such that even though the mother may later recover, the damage done to the infants' attachment may never be resolved, with consequent negative lifelong implications for the child (Austin, 2004). Similarly, according to Oates (2003) morbidity arising from mental health problems is the foremost cause of maternal death in the perinatal period. Mortality also increases, with evidence that suicide in the first year after birth increases by eighty percent (80%) in women who experience severe mental health problems (Appleby, Mortensen & Faragher, 1998).

1.1.1 Pregnancy, childbirth and culture

Childbirth, though largely a natural life event, is influenced by the circumstances and expectations of the woman herself as well as the broader cultural values of the society in which she lives (Amoros, Callister & Sarkisyan, 2010). Cross cultural research examining the motivations behind childbirth in various contexts: Taiwan, Japan, Republic of Korea, the Philippines, Thailand, Indonesia, Singapore, Turkey, USA and Germany have examined its, socioeconomic, social, psychological as well as demographic determinants. Findings based on these contexts have showed that culture as well as social and economic factors affected the attitudes, values and perceptions of people which in turn through social-psychological pathways affected their reproductive behavior. Cross-sectional data analyses showed that increases in socio economic development especially in areas of education tended to decrease

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the economic value attached to children while increasing their psychological value. Further analyses revealed that in settings where the economic value of children were prioritized, there was a preference for sons, women had a low status in the family, children had a high security value and there was high fertility (Kagitcibasi, 1982). More recent work on the value of children in Turkey over three decades has confirmed these earlier assertions (Kagitcibasi, 2005). Results within that context suggest that there is an increase in the psychological value of children and a decrease in the economic values attached to children, with a son preference being replaced by daughter preference, and modifications in expectations of children and the qualities desired in children, thereby providing insights into development and social change within that context. Other researchers such as Trommsdorff, Zheng, and Tardif (2002) are extending this cross cultural approach to the value of children research and getting similar findings across contexts.

In Africa, Childbirth is highly regarded and is reckoned as being the dignity of a woman. According to a British Broadcasting Corporation news report in 2004, a hospital in Somalia was forced to shut down following threats to a doctor who removed a woman's womb. Although the operation had saved the patient's life because the foetus she was carrying was dead, her family sent gunmen to the hospital, saying she was as good as dead without a womb and demanding 50 camels; the compensation offered for the death of a woman ("Is a woman only worth her children?",2004).

Among the Asante; an ethnic group in Ghana, conception is regarded as the purpose of most sexual activities and pregnancy is regarded as a happy occasion especially in marriages. Consequently, when newly married people are being prayed for, they appeal to God and their ancestors to bless the bride with the womb of an elephant (Sarpong, 1974). Callister, Beckstrand and Corbett (2010) found that women in Nigeria perceived motherhood as a fulfillment of their gender role and their ultimate happiness and purpose in life. To the

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Yoruba of Nigeria, mothers role in the preservation of humanity confers on them the highest admiration and respect given to women (Makinde, 2004), usually catapulting them from the lesser status of a wife to the more prestigious status of "mother". Motherhood, therefore, is a basis of female empowerment (Nzekwu, 2004). It is instructive to note that, it is not only conception that earns a woman this change in status, but more importantly, the birth of a live baby (Nzekwu, 2004). According to Obiagwu (2000):

> "Only on the birth of a child does a woman become truly a kinsman in her husband's group. Only on the birth of a child is a man assured of the 'immortality' of a position in the genealogy of his lineage or even his security or esteem among the important people of his community" (p. 43).

The above quotation, from research done in Nigeria, epitomizes the value of childbirth in Africa and indeed the pressure it places on women in their reproductive years. In Ghana, Odotei (1989) writing about the naming ceremonies of the Ga ethnic group, explains that the way a woman is addressed is used to measure when a change in her status has occurred. A woman upon marriage does not take upon her husband's name, but continues to use her own, until she gives birth. However, as soon as she gives birth to her firstborn child, her status changes. This is because her value as a human being is dependent upon her role as a mother, and her link to her husband, is emphasized by virtue of childbirth. Consequently a woman is not identified by her husband's name but rather by the name of her child. "Kookoi married to Ataa Ako does not become Mrs. Odotei as modernity demands but "Odoi nye (mother of Odoi)" (Odotei, 1989, p.43). The woman's identification now therefore, lies with the entire lineage and not only the man to whom she is married to. The whole lineage thus become responsible for her and is concerned for her wellbeing because of the children she is producing for the family.

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1.1.2 Common Perinatal Mental health problems and culture

There is still much discussion as to whether mental health problems are universal or culture specific (Jenkins, Kleinman & Good, 1991). According to Ng (1997), perinatal mental health problems are manifested as somatic symptoms in cultures that frown upon and stigmatize emotional distress. For instance, a study in Ghana by Avotri and Walters (2001) found out that women's conceptualization of perinatal mental health problems, embodied in the terms; "thinking too much" and "worrying too much," were both linked closely with somatic symptoms such as headaches, disturbances in sleep and body aches and pains.

Also, due to the importance of childbirth in Africa, attention is paid to this period in the form of rites, rituals and taboos that are meant to protect the woman from negative occurrences. In addition to spiritual protection against evil forces, stipulated periods of rest, seclusion and healing are also part of cultural rites that are deemed to offer protective physical and psychological benefits, to women foremost, and their babies also, during the perinatal period (Liamputtong, Halliday, Warren, Watson & Bell, 2003). These practices are enforced by female members of the woman's family; especially her mother and mother-in-law who take up the responsibility of the baby's care and other house chores (Anugwom, 2007; Okafor, 2000). These practices have served to perpetuate the notion that women in Africa are protected from psychological problems in the perinatal period. A study in Pakistan by Rahman, Iqbal and Harrington (2003) found that the "Chilla" ritual which involved mandated rest and dedicated care lowered the risk of perinatal mental health problems. Fisher, Morrow, Nhu Ngoc and Hoang Anhc (2004) in a study in Vietnam again showed that although some practices did not offer any protective benefits, those that involved practical interpersonal care did mitigate the risk of perinatal mental health problems. However, a study on Bangladeshi women in Dhaka and London in comparison with British women, by Fuggle, Glover, Khan and Haydon (2002) found the same rate of depression; 11.5%, among all of

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them, suggesting that women who abided by such culturally sanctioned practices did not mitigate their risk for perinatal mental health problems.

According to Fisher, Nguyen, Mannava, Tran, Dam, Tran, Tran, Durrant, Rahman and Luchters (2014), about one in six women who are pregnant and one in five women who have given birth experience perinatal mental health problems in low and lower-middle-income countries (LLMIC's). High rates of mental health problems in pregnant women and mothers of infants have also been reported from many countries in Africa such as Ethiopia, Nigeria, Senegal, South Africa, Uganda and Zimbabwe among others (WHO, 2008). These mental health problems come under various names, take on different forms and have differing explanatory models ascribed to them. For instance, in Uganda, "Amakiro" denotes a condition affecting women in the perinatal period. With symptoms including restlessness and mental confusion, it is believed to be caused by promiscuity by the mother during the antenatal period. Another example is "Abisiwin"; a perinatal mental illness in Nigeria, and believed to be caused by an abundance of heat within the body (Cox, 1986). In effect, the projected benefits of culturally prescribed protective practices such as mandatory periods of rest and support may indeed be dependent on the nature and quality of the relationship between the woman herself, and the members of her family who are close to her. Where family relationships are strained, contentious and conflict-laden, these practices could rather prove to be restrictive and cause distress to the new mother (Matthey et al., 2002). This counters the unquestionable notion that women's mental health during pregnancy and after birth is protected by culturally-prescribed traditional practices in particular settings.

High rates of perinatal mental health problems across some of these settings also seem to debunk that notion. For instance, Fisher et al. (2012) found a rate of 15.9% prevalence of antenatal common mental disorders and 19.8% of postnatal mental disorders in LMICs. Thus, the assumption that these soceities are immune to perinatal mental health problems might be

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simplistic and subject to further investigation. Even in instances where ritual care is culturally prescribed, it might not be accessible to all women (Fisher et al., 2004; Inandi et al., 2002). According to Fisher et al. (2004), ritual care that is controlling and curbs the woman's independence might actually work to rather increase mental health problems.

Culture also seems to influence conceptualizations of perinatal mental health problems in Sub Sharan Africa. with studies showing they were deemed to be normal responses to stress (Rochat, Tomlinson, Barnighausen, Newell & Stein, 2011). For instance studies done in Ethiopia show that pregnancy is associated with weakness, which could be exacerbated further by poverty and low social support (Hanlon et al., 2009; Hanlon, Wondimagegn, & Alem, 2010).

1.1.3 Correlates of perinatal mental health problems

An unhealthy relationship between the woman in the perinatal period and her partner, have been characterized as a significant indicator of depression during the perinatal period (Beck, 2001). This low quality intimate partner relationship is usually indicated by increased conflict, not enough practical and emotional support, excessive alcohol intake and abiding by rigid traditional sex role expectations (Beck, 2001; Nakku, Nakasi, & Mirembe, 2006). The poor quality relationship between would-be parents impacts significantly on the health of women during the perinatal period and has been shown to differentiate between depressed and non-depressed women in Hong Kong, India, Pakistan, Brazil and Viet Nam (Chan et al., 2002; Da Silva et al., 2003; Fisher et al., 2004; Rahman, Iqbal & Harrington, 2003; Rodrigues, Patel, Surinder, & de Souza, 2003).

According to Fisher et al. (2012), living in a nuclear household and not having a positive relationship with one's mother also increased the risk of perinatal mental health problems. However, this finding has not been corroborated in other studies (Gao, Chan &

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Mao, 2009). Incidence of recent migration or relocation and its concomitant social disruption also increased women's risk of adapting to motherhood (Parvin, Jones & Hull, 2004). Groups found to be at a greater risk of depression include: unemployed parturient women or those in low-status and unskilled occupations (Rubertsson et al., 2005). There is strong evidence also that poverty directly affects maternal mental health in resource-poor countries (Cooper et al., 2002). Women who encounter restrictions associated with strong gender-role expectations also experience a higher risk of perinatal mental health problems. The absence of reproductive alternatives, such as contraceptive use, can lead to unwanted pregnancy, which frequently has become linked with a greater probability of perinatal mental health problems (Inandi et al., 2002). Unwanted pregnancies have also been found to be related to a high incidence of anxiety that does not reduce during pregnancy but continues into the postpartum period (Scottish Intercollegiate Guidelines Network, 2002).

1.1.4 Effects of Perinatal Mental Health problems

Pregnancy and childbirth are not inherently pathological; however, it becomes a critical stage because the life of the mother, as well as the baby, is at stake (Stoll & Measham, 2001). The impact these conditions have on the woman and her family is wide-ranging, particularly if left untreated. Women who experience perinatal mental health problems often face stigma which may keep them away from treatment (Fisher et al., 2010). Also beliefs about the causes of mental health problems, such as being a curse, dent the image of the entire family, prompting them to hide their family member's ill health (Monteiro, 2015). Perinatal mental health problems also affect women's ability to care adequately for their own needs such as failing to bathe and eat adequately as well as reduced efficiency in taking care of other needs thereby increasing their risk of illness (Cantwell et al., 2011). In low-income countries, depression is known to be associated with risky behaviours such as the use of

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tobacco, alcohol and illicit drugs among pregnant women. Perinatal mental health problems can also result in suicide and infanticide. This is critical, as suicide is one of the leading contributors to maternal mortality worldwide with about 20% of women in the perinatal period in LMICs experiencing suicidal thoughts and tendencies (Miranda & Patel, 2005).

Perinatal mental health problems also impact the quality of life of the mother. Quality of life is defined as, “an individuals' perceptions of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns” (WHOQOL Group, p. 1405). The concept of quality of life is premised on the definition of health by the World Health Organisation as, “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, 2001, p.1). It is a broad ranging concept affected in a complex way by the person's physical health, psychological state, personal beliefs, social relationships and their relationship to salient features of their environment. For instance, perinatal mental health problems affect women’s ability to engage in productive activity, to engage in mutually beneficial relationships and community activities (WHO, 2008).

“Woman who killed 2 daughters was Chartered Accountant” (2015) was a newspaper story which made national headlines when it reported in Ghana. The woman involved was a university graduate and Chartered Accountant by profession, who poisoned her two children to death because she was experiencing mental health problems that developed after giving birth to her second daughter. It was reported that although she was working, she had to quit her job because of the mental health problems she experienced. Mental health problems can also affect mothers’ mobility, body image, and self-esteem. These effects are not trivial issues and affect basic functions and fundamental rights such as the ability to earn a living and survive as well as the basic dignity of having one’s freedom and independence.

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According to Howard et al. (2014), the health of the mother is very closely linked to the health of her child. This implies that the quality of early care received from the mother; as usually is the case, is critical to the optimum development and functioning of a young infant. Perinatal mental health problems may affect pregnancy and foetal development and outcomes, leading to intrauterine growth retardation, spontaneous abortion, preterm birth and low birth weight (Edge, 2011; Heaman et al., 2013; Staneva et al., 2017). According to WHO (2008), higher rates of stunting and malnutrition, as well as higher rates of infectious illness, diarrheal episodes, reduced compliance and completion of immunization schedules, as well as more frequent hospital admissions have been found in children in poorer communities (WHO, 2008). Infants may also be unable to regulate sleep, have poor emotional regulation and be impulsive. These problems, in turn, have a disabling effect on the mother, thereby making her more distressed and setting up a vicious cycle of mother and child relationship difficulties (Beyondblue, 2008).

Perinatal mental health problems similarly predispose the child to learning difficulties and poor educational outcomes (Hogg, 2012; Milgrom, Westley & Gemmill, 2004). According to Hay et al. (2010), children of depressed or anxious mothers are more likely to be diagnosed with depression themselves, by the age of sixteen. A child whose mother experiences perinatal mental health problems, therefore, stands at a greater risk of experiencing an array of difficulties affecting almost every facet of their lives (Hogg, 2012; Milgrom, Westley & Gemmill, 2004; O'Connor, 2002; Stein et al., 2014).

Fathers also, cannot be left out, when effects of perinatal mental health problems on the entire family are being discussed. Perinatal mental health problems have been associated with depression in fathers, affecting the level of support they are able to give their wives and leading to high rates of family breakdown (Goodman, 2004). The effects of a relationship

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breakdown consequently, are also associated with increased risk of emotional and behavioural difficulties in children (Merikangas et al., 2010).

1.1.5 Statement of the Problem

In March 2017, a story broke on one of Ghana's foremost radio stations, Joy FM, which made national headlines and captured the hearts and minds of the cross-section of the Ghanaian populace. The story was captioned, "next to die" and was a documentary featuring chilling revelations of exceptionally high infant and maternal mortalities at the country's second largest referral hospital; Komfo Anokye Teaching Hospital (KATH). According to the story, on the average, about 100 women are dying on delivery beds at the KATH in Kumasi annually, while averagely, about four babies die each day. Health professionals who sat through the premiere of the documentary described it as a sore on the conscience of health delivery in the country. The makers of the film attributed the high mother and child deaths to lack of space and logistics ("Multimedia, KATH discuss ways to end maternal, neonatal deaths", 2017). The story attracted heavyweights, such as the president of the Republic of Ghana, who has toured the old and dilapidated facilities of the maternity ward, the first lady of the Republic of Ghana, who has taken the lead to raise funds for the completion of an existing ward to the tune of ten million dollars. The eminent King of Asante; Otumfuo Osei Tutu II, has also joined efforts to raise funds in solving the problem. An important component missing from this discourse is the lack of awareness of the impact of mental health on reproductive health outcomes and the lack of appreciation of the linkages between mental health problems and maternal and neonatal mortality. It is a misconception that obstetric complications and infectious diseases related to pregnancy and childbirth constitute a more present threat to maternal health than mental health issues.

Perinatal mental health problems contribute in a very direct manner to mortality during pregnancy through suicide. According to WHO (2008), suicide is a leading cause of

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maternal death in developed countries. In the UK and Australia, suicide has been found to be the leading cause of death during the perinatal period (Oates, 2003). In emerging literature, suicide has been ranked as the leading cause of death within the perinatal period (Iacobucci, 2016). In LMICs, suicidal ideations and tendencies occur in up to 20% of mothers, although the figures are generally perceived as an underrepresentation because of the deep cultural stigma and consequent underreporting attached to suicide (Miranda & Patel, 2005). Indirectly also, mental health problems contribute to the incidence of maternal mortality. Mental health problems within the perinatal period compromise a woman's ability to seek healthcare and follow care plans, for instance, daily iodine supplementation, thereby compromising her health and leading to adverse health outcomes including mortality. Perinatal mental health problems, therefore, do lead directly to maternal mortality through suicide and self-harm and also contribute to maternal morbidity which could also be the harbinger for maternal mortality. It must be noted however that the over-reliance on mortality as the determinant measure of adverse health outcomes in perinatal women has led to the neglect of other equally serious morbidities and usually permanent sequelae such as perinatal mental health problems. Consequently, mental health remains largely invisible on Ghana's national maternal care policy agenda's with zero provision for training and resourcing of its workings.

In Ghana, the mental health of pregnant women and newly delivered women are not considered within the remit of reproductive health services. They often go undetected because symptoms such as poor sleep and fatigue are also linked to normative and stereotypic representations of motherhood (WHO, 2008). Screening for depression and anxiety are not included in maternity care in Ghana and health care professionals who come into contact with women during the perinatal period are not trained to recognize symptoms of depression and anxiety. This gap has become an unmet need in maternity care delivery in Ghana.

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Studies done in Ghana have shown that mental health is important to women themselves (Ofori-Attah et al., 2013). Avotri and Walters (1999) in their study of women in the Volta region found out that a high incidence of worry overshadowed reproductive health concerns, with women ascribing the cause of the psychosocial distress they experienced to lack of financial insecurity, a rigid system of gender–based division of labour that put on them a disproportionate burden of care, and difficult workloads (Napravnik et al., 2000). However, there is little research about mental health issues of women in Ghana, even less research on the mental health of women within their reproductive years and a very low amount of research available on the mental health of women within the perinatal period.

Globally, mental health represents a critical indicator of human development, serves as a key determinant of well-being, quality of life, and hope, has an impact on a range of development outcomes, and is a basis for social stability (WHO, 2010). In a historic step, world leaders have come together and put forward a global strategy that takes cognizance of the importance of mental health and wellbeing in development. The United Nations General Assembly in September 2015 adopted the Sustainable Development Goals (SDGs, featuring 17 new sustainable development goals and 169 targets. The Agenda 2030 is an ambitious document that will define global development from 2015 to 2030. The declaration section of the Sustainable Development Goals aims to "promote physical and mental health and wellbeing and the prevention and treatment of non-communical diseases (NCDs), including behavioural, developmental and neurological disorders, which constitute a major challenge for sustainable development." Goal 3.4 of the SDG's also aims to, "By 2030, reduce by one third, premature mortality from non-communicable diseases through prevention and treatment and promote mental health and wellbeing."

This historic appreciation of mental health and wellbeing on the global stage marks a turning point in the discourse of maternal health, and is a call to action, in terms of the

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benefits that mental health can offer in the global quest to solve the twin problems of maternal and child mortality and mobidity.

1.1.6 Rationale for the Study

In spite of the evidence linking mental health to maternal morbidity, this linkage is largely invisible on policy agendas. Currently, there are no recognized existing initiatives to promote perinatal mental health in Ghana. Many programmes, such as the Safe Motherhood Task Force and Safe-Motherhood Initiatives have been rolled out by the Ministry of Health over the years to promote maternal health. The Millennium development Goal 5, to reduce to the ratio of maternal mortality was also largely unachieved by Ghana, leading Ms Christine Evans-Klock (the UN Resident Coordinator and UNDP Resident Representative for Ghana) to call for a strategy change, if Ghana is to achieve its health related goals in the post - 2015 era (Asamoah, 2015; Millennium Development Goals, 2015). Dr Mohammed Soori, a psychiatry consultant at the Tamale Teaching Hospital, in 2016, cautioned that maternal mental health cases were assuming alarming proportions and if preventive measures are not stepped up, it might become a national challenge ("GKS schools health personnel on maternal mental healthcare", 2016). In the United Kingdom (UK) as in other international contexts, there is a firm policy remit via national guidelines that propose that, across the perinatal period, there should be the assessment of psychological health in its broadest sense (NICE, 2007). This is in view of the fact that psychosocial screening has been linked to both the prevention and reduction in severity of perinatal mental health problems (Austin, 2014). Early identification of perinatal mental health problems leads to improved outcomes for mothers and children and also leads to a reduction in long-term costs on whole societies (Hogg, 2012).

According to Reichenheim, Zylbersztajn, Moraes and Lobato (2009), for every woman who dies due to causes related to pregnancy and childbirth, there are about 20 or 30

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others who continue to live with acute or chronic morbidity. These effects have a negative effect on the quality of life and everyday functioning of the woman in areas such as her mental, physical and sexual health, as well as her social and economic status (Storeng, Murray, Akoum, Ouattara & Filippi, 2010). Perinatal mental health problems, in particular, imply both human and economic costs. For instance, Bauer, Parsonage, Knapp, Iemmi and Adelaja (2014) published a report on the economic costs of perinatal mental health problems to the UK, showing that perinatal mental health problems cost the UK National Health Service, a whopping 1.2 billion pounds for every cohort of births in a year and in the long term costs the UK society 8.1 billion pounds for every cohort of births in a year. These costs are incurred in the face of facts that suggest that it would have cost far less to set up an effective, holistic and standardized perinatal mental health care service pathway across the country. These statistics have implications for Ghana and show, that there are economic costs of perinatal mental health on both the individual and the society.

By focusing on the quality of life of the woman within the perinatal period, the current study broadens the scope of enquiry unlike previous studies carried out in the same context, and brings to the fore the effect of perinatal mental health problems on the women primarily, and consequently on the society as a whole. By so doing, the study adds up to the literature on the subject in sub-Saharan Africa, since there is a paucity of studies focusing on quality of life as a result of perinatal mental health problems (Muhwezi, Okello & Turiho, 2010). This current research gives policy makers a new perspective on perinatal mental health problems; as a problem not only for the woman but also for the whole society through the mechanism of a diminished quality of life. This study is important in order to capture the impact of disease on the day to day lives of people; information that may be useful in identifying and prioritizing areas of need of individual patients and fed into planning and evaluation of various treatment approaches.

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Currently, all over the world, more people live in urban areas than in the rural areas ("Global health observatory data", 2017). This increasing urbanization has brought repercussions on the social, economic, psychological and physical health of inhabitants. The Greater Accra Region is the capital of Ghana and the main economic, administrative and financial center of Ghana. According to De-Graft Aikins and Ofori-Atta (2007), the rapid urbanization of Accra has had a detrimental effect on the mental as well as physical health of its inhabitants. Ofori-Atta et al. (2013) revealed that the occurrence of reported psychological distress is sizable among both men and women in Ghana; however, it is higher among women.

In spite of the effects of urbanisation of women's mental health, eighty-five percent (85%) of LMICs have no data on maternal mental health and as of 2012; there were only 34 studies in LMICs on mental health in the postpartum period (Fisher et al., 2012). To date, however, only a handful of studies such as (Vousoura, 2014; Weobong, et al., 2014; Scorza, Owusu-Agyei, Asampong & Wainberg, 2015) within the field of perinatal mental health have been conducted in Ghana. For most of these studies, there is a reliance on cross-sectional data, making it difficult to understand the lagged relationship between antenatal mental health and postnatal outcomes. This study however, employs a panel study design in order to better understand the relationship between variables and also the patterns of change across time, and in so doing yield a better understanding of perinatal mental health in Ghana. Also, most of the studies done in Ghana have focused mainly on rural communities with little known about perinatal mental health in urban settings. The setting of this current study is within the Accra Metropolitan Area which forms the core of the city of Greater Accra and will aide in unearthing the complexities and multifaceted nature of the issue of perinatal mental health in an urban setting. The studies in Ghana have also relied extensively on quantitative methods, which miss the contextual factors that impact perinatal mental health. This current study,

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however, employs a mixed methods design with the aim of harnessing the strengths of both qualitative and quantitative approaches in order to get a broader and more integrated understanding of perinatal mental health problems within the Ghanaian context.

In conclusion, this research will highlight the understanding, experience, form and antecedents of perinatal mental health problems within the Ghanaian setting. In the view of Pederson (1991), human behaviour is shaped by culture, and even in cases where behaviour is genetically influenced, its manifestation is influenced by societal and cultural norms. Thus researching into perinatal mental health problems within a Ghanaian setting will help the design of context specific and appropriate prevention and intervention programmes. It will also inform early detection mechanisms and improved mental health monitoring across all maternity and postnatal settings as well as influencing health policy in terms of management modalities and training of health personnel.

1.1.7 Aims and Objectives of the Study

The main aim of this study is to examine perinatal mental health problems, birth outcomes and quality of life among women in Accra through a mixed method study. The specific objectives of the study are as follows:

- To explore women's experiences during the perinatal period and their perceptions of perinatal mental health problems.
- To examine the quality of life in women who experience common perinatal mental health disorders.
- To examine the factors that moderate the relationship between common perinatal mental health disorders and quality of life.
- To determine the birth outcomes of women who experience common perinatal mental health disorders.

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- To explore perceptions on perinatal mental health care services in Accra.
- To explore coping factors related to perinatal mental health problems among participants.

1.1.8 Thesis Content

Following this introductory chapter are six distinct chapters (Chapters 2, 3, 4, 5, 6 and 7)

Chapter 2

This chapter is the literature review section of this study. Included in that section are the theoretical frameworks, the review of related literature and the conceptual model.

Chapter 3

This chapter contains the general methodological approach, methodological paradigm and overall design of the study.

Chapter 4

This chapter contains the specific methodology, results and discussions of Study One, which is a qualitative study. The purpose of this qualitative aspect of the research work was to explore women's experiences during the perinatal period as well as their perceptions of perinatal mental health. This study explores how women interpret their experience of distress and the meanings they ascribe to it. This work also highlights the importance of recognizing both psychosocial and personal factors in the understanding of psychological distress during pregnancy. An Interpretative phenomenological analysis of in-depth interview data allowed the complexity of experience during pregnancy to be explored in light of the idealized notions of pregnancy and childbirth within Ghanaian settings.

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Chapter 5

This chapter contains the specific methodology, results and discussion of Study Two, which is a quantitative study. This chapter examined the relationship between common mental disorders, birth outcomes and quality of life among women in the perinatal period and also investigated the moderating effects of intimate partner relationship and social support on that relationship. It was a panel study which followed a group of women from 8-9 months of pregnancy to 6 to 12 weeks after birth. This study also investigated the relationship between perinatal mental health problems and birth outcomes. The analysis involved datasets from a total of 122 women and included all two time points of assessment. This study focuses on the link between mental health and wellbeing and contributes to better understanding of the influences affecting these relationships.

Chapter 6

This study contains the specific methodology, results and discussion of Study Three, which was a qualitative study. It is a follow-up study to Study 2 and explored the contextual issues behind the findings in Study 2, as well as exploring perspectives on perinatal mental health care services within Accra.

Chapter 7

The concluding chapter of this thesis is a general discussion that synthesizes findings across all the studies conducted as part of this research. It gives an overall summary of the research while revisiting the primary aims, findings and implications of findings for practice and policy. It concludes with a discussion on recommendations going forward.

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CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents the relevant theoretical frameworks, including the Biopsychosocial theory, the Stress-vulnerability model and the International Classification of functioning, disability and health model (Engel, 1977; WHO, 2001; Zubin & Spring, 1977). The theoretical fit of these theories to perinatal mental health problems, birth outcomes and quality of life is discussed and critiqued. The presentation of theoretical frameworks is followed by the review of empirical literature on the variables in the study. The chapter also includes the conceptual framework that guided this study, rationale for the present study, the hypotheses to be tested, research questions to be explored, and operational definitions of key terms.

1.2 Theoretical Framework

1.2.1 Biopsychosocial Model of Health (Engel, 1977)

The biopsychosocial model came into prominence as a substitute for the traditional biomedical model in 1977 when it was proposed by George L. Engel as a new way of conceptualising health and biomedicine (Papadimitriou, 2017). According to Ross and Toner (2004) the biomedical model failed to take into consideration the social determinants of health. For instance, the biomedical model proposes that the causes of perinatal depression, are as a result of changes in the serotonergic neurotransmitter system, the thyroid system and hyper-or hypo-activation of the hypothalamic–pituitary–adrenal (HPA) axis among others (Skalkidou, Hellgren, Comasco, Sylvén, & Poromaa, 2012). This view has however been criticised as pathologising women's reproductive functions and system (Chrisler & Johnston-Robledo, 2002). Ross (2004) in a study on the mental health of a large group of women

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during early and late pregnancy, collected data on hormone concentrations, psychosocial factors, such as satisfaction with relationships and social support, as well as self-reports of depression and anxiety. The study was to examine associations between biological and psychosocial variables in the development of symptoms of depression and anxiety during pregnancy and after birth. Structural equation model analysis carried out in this study, indicated that, biological factors showed a strong relationship with anxiety and depression; however, after the psychosocial factors were added to the model, the biological factors were no more statistically significant in predicting mental disorder. Biological factors were however significant when they interacted with psychosocial factors in predicting depression, thereby showing an indirect causal pathway between biological factors and depression. This reinforced the argument, that biological factors become relevant only when considered within the context of a psychosocial environment.

The continuous reliance on the biomedical model, led to the rise of feminist models which protested against some of its tenets (Morgen, 2002). They posited that pathology is environmentally produced, and is a consequence of women living in societies that devalue them (Worrell & Remer, 2003). This focus on social factors affecting women’s health has been criticised as neglecting the biological determinants of women’s health (Ross & Toner, 2004). The biopsychosocial model came into focus as the framework for harmonising both the biological, psychological and social factors that influence an individual and her health (Jull, 2017). It was largely based on a systems theory approach which proposes that systems are made of different components, which then also become components of even greater or bigger components. For instance a person is composed of sub atoms, atoms, molecules and then the person as a whole. However the person as a whole is also a component of a family, a society and a community. Although the biomedical model focused on studying just one part of the component, the biopsychosocial model believes that the whole system need to be

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studied since the components are in continuous interaction with each other and what happens in one component is bound to affect outcomes in another component (Pilgrim, 2002). The biopsychosocial model aimed at seeing the individual within a broader context and linked the internal workings and schema of the individual to the influences outside of the individual but which continued to remain influential. It is thus, an interaction based on mutually influencing internal and external processes. This model provides a framework for organising previously neglected contextual variables such as gender role socialisation, patriarchal structures within the society and women centred conceptualizations of health (Weisman, 1997).

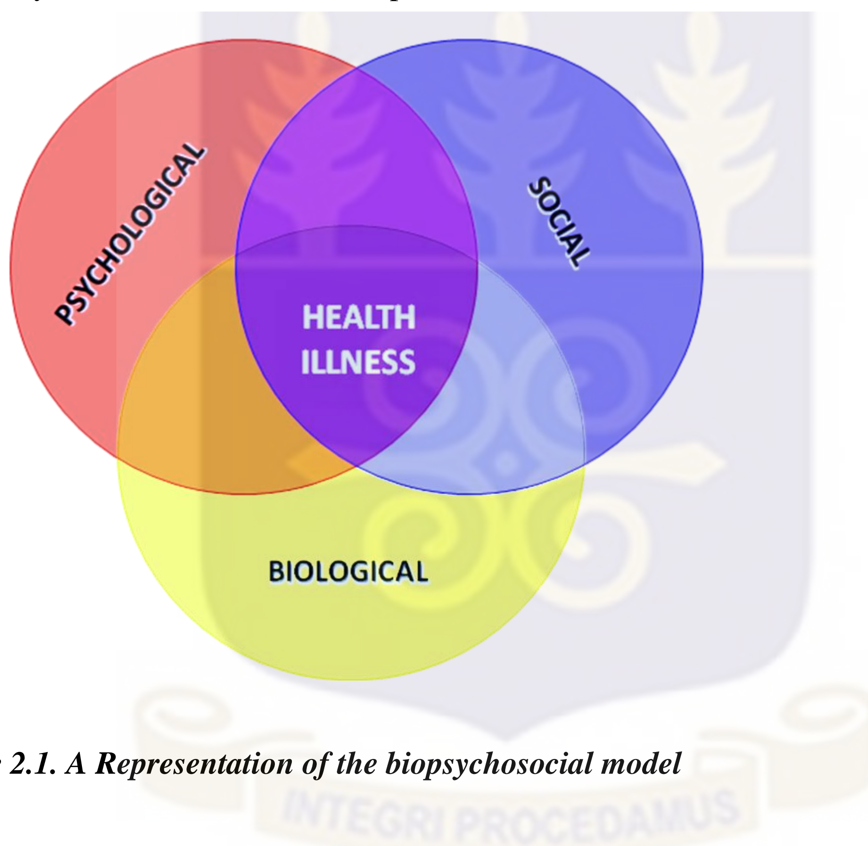

Figure 2.1. A Representation of the biopsychosocial model

Figure 2.1, shows the factors in the theoretical framework that facilitate the understanding of perinatal mental health problems and birth outcomes in this current study. Biological factors that may be related to birth outcomes include; genitourinary tract colonization, infection and inflammation such as bacterial vaginosis, multiple births, maternal anthropometry (such as low BMI), maternal age, pregnancy induced hypertension, incompetent cervix, history of prior preterm birth and placental abruption (Vardavas et al., 2010). Social forces may also

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have an impact on adverse birth outcomes. Social inequality has been recognized as the main cause of poor health outcomes (Marmot & Wilkinson, 1999). According to Moser, Li, and Power (2003) outcomes of research indicates a relationship between social inequalities and lack and low birth weight.

Psychological factors have also shown associations with adverse birth outcomes through stress and its activations of the fight-or-flight response (Brunner, 1997). This response consequently increases catecholamines and glucocorticoids causing cortisol induced increase in placental release of corticotrophin-releasing hormone (CRH). The release of this hormone increases the production of prostanoids which can stimulate uterine contractility and induce adverse birth outcomes such as preterm births (Hobel et al., 1998). Also, stress hormones lead to suppression of the immune system exposing the mother to acquire more easily, infections that may lead to low birth weight and preterm birth as well as an admission to the neonatal care unit (Romero et al., 2001).

Some of the pathways between Common perinatal mental health problems and birth outcomes points to the influence of factors such as lack of intimate partner relationship and lack of support, as bringing about stress and consequently influencing birth outcomes through neuroendocrine or immune processes (Zhu, Tao, Hao, Sun & Jiang, 2010). Another causal pathway is through the increased risks associated with lifestyle choices such as smoking and substance abuse (Lobel, Hamilton & Cannella, 2008). Interestingly, other notable factors such as being single, being divorced, having an income that is less than average and smoking have been correlated with low birth weight (Brown, Yelland, Sutherland, Baghurst & Robinson, 2011).

The biopsychosocial model in this study is used to show how social factors such as low quality intimate partner relationship causes elevations in the distress levels of the woman, psychologically therefore reducing her commitment to the pregnancy. She may show this

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lessened commitment by engaging in high risk behaviour such as smoking, taking in illicit drugs or having multiple partners. All these behaviours heighten the risks the woman exposes herself to, in terms of having adverse birth outcomes. The biopsychosocial model adopted by the WHO (2002) in its conceptualisation of perinatal mental health is important as it shows the interplay of biological, psychological and social factors in understanding the relationship between perinatal mental health problems and adverse birth outcomes. It is also important for this research in bringing into focus the role of sociocultural factors in explaining the development of perinatal mental health problems and outcomes (Worrell & Remer, 2003).The biopsychosocial model also provides a framework within which broad contextual factors such as the impact of gender role socialisation can be practically applied to the prevention and treatment of health based conditions in women (Saxbe, 2017).

In critiquing the biopsychosocial model, Suls and Rothman (2004) posit that there is lack of clarity in the definitions, boundaries and interrelationships of the various components of the model; biological, social and psychological. For instance, where does psychology end, and biology start? Or what actually constitutes the social dimension of the model? The social component of this theory has also been criticized as comprising of a mix of everything; from a psychological perspective in terms of looking at the correlates of illness from a life event perspective, to a highlighting of structured social factors, obtaining from a public health perspective. Berkman and Kawachi (2000) consequently question whether the social component includes both political as well as environmental determinants of health. It has been argued that the biopsychosocial model fails to make clear which input will be most dominant in relation to perinatal mental health problems especially within particular contexts. According to Hugh and Slvney (1998) the biopsychosocial model is a list of ingredients without a formula for use for in order to cook, it is important not only to know the ingredients to use but also the right amount to and when they should be used. The biopsychosocial model

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is not comprehensive in this regard and is unable to explain interactions between the various components as occurs in various contexts and in with various health states. It is a model that gives permission to do everything but with no specific guidelines to do anything.

Also according to Suls and Rothman (2004) ethnicity and culture is a missing component of the biopsychosocial model. The model has been criticized for leaving out key components such as subjectivity and spirituality. Although culture is supposed to be captured under the social component of the biopsychosocial model, the concept of culture as contained within it, assumes that groups are homogeneous and therefore fails to take into consideration within group variations. While individuals within the same group may have the same knowledge about cultural value systems, they may express them differently and thus it is an indictment on the biopsychosocial model that it fails to honour human subjectivity.

1.2.2 International Classification of Functioning, Disability and Health (ICF) Model (WHO, 2001).

According to the ICF model, disability and functioning are regarded as consequences, based on the interplay between health problems; (injuries, disorders and diseases), contextual factors; made up of environmental factors (attitudes of the society, structures that exists within the societal and legal levels, and others such as the terrain and climate) and internal personal factors, (one's age, coping style, gender, level of education, character and behavioural patterns).

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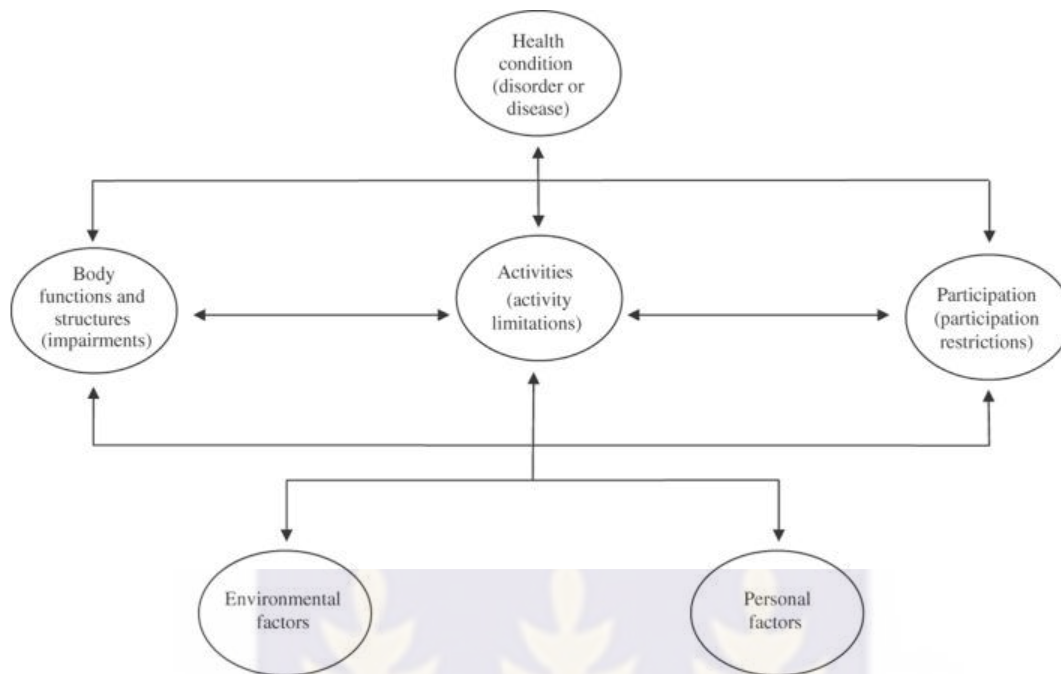

Figure. 2.2 The International Classification of Functioning, Disability and Health (ICF) Model (WHO, 2001).

Figure 2. 2, identifies the three levels of human functioning classified by ICF: in terms of the level of body or body part, the whole person in terms of activities and the whole person in a social context in terms of participation. Disability is therefore characterized as dysfunction in terms of impairments, activity limitations and participation restrictions with impairments meaning problems in the functions or structure of the body, activity limitations having to do with the challenges a person encounters in carrying out his or her daily activities while participation restrictions have to do with the challenges a person encounters in the quest for social participation (WHO, 2001). However in terms of its relevance for this study, the ICF model has been criticized as omitting components such as quality of life; which has to do with the individual's subjective evaluation (Duchan, 2004). According to Threats and Worrall (2004), an individual's subjective experience within the ICF model may be placed under the personal factors category comprising race, gender and age among others. This "personal factors" category has been loosely defined as consisting of the various components regarding

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the background of the person which are not a direct part of the health condition of the individual. However according to Duchan (2004) it is a form of mere tokenism to acknowledge the subjective experience of the individual and yet have it placed within a category where it cannot be coded, and where it loses its relevance as it gets mixed up among a myriad of other factors. Consequently the influence of "the person" and the subjective voice, might be lost completely if the model is adhered to by researchers and clinician in its current form (Duchan, 2004). An expanded model has therefore been proposed to allow an integrated approach, and incorporate the viewpoint of the subjective experience of the individual in understanding the impact of a condition, satisfaction and consequently quality of life (Küçükdeveci, Tennant, Grimby & Franchignoni, 2010).

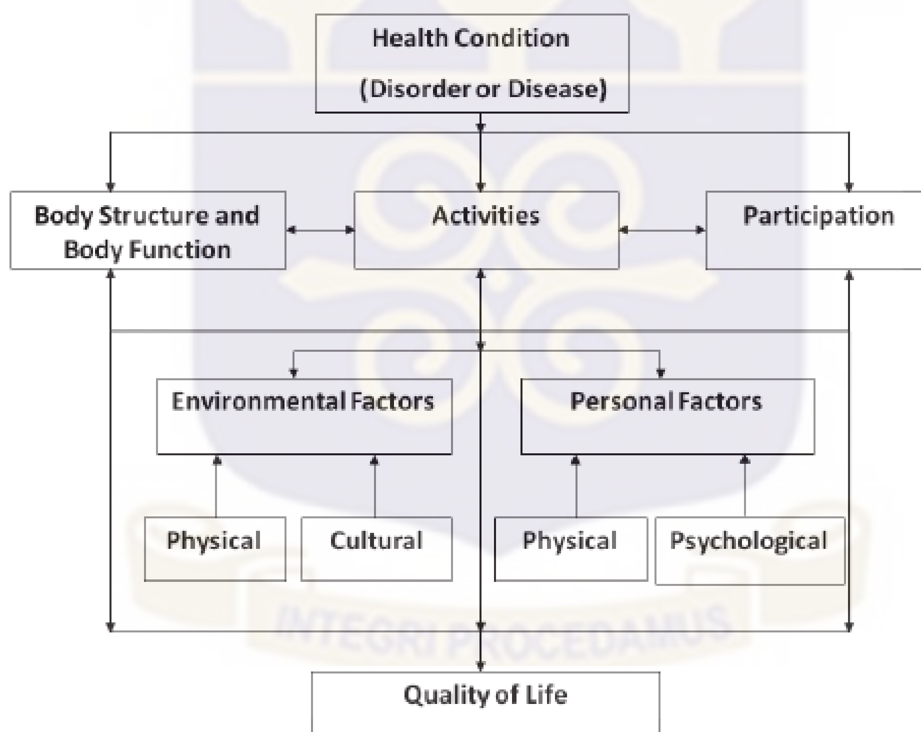

Figure.2.3 The model of the International Classification of Functioning, Disability and Health (ICF) expanded to include quality of life (Küçükdeveci, Tennant, Grimby & Franchignoni, 2010).

What this modified model in Figure 2.3 seeks to do, is to present an expanded perspective of the impact of impairment on individual functioning and disability and how these interact over

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time. By incorporating subjective wellbeing, the modified model makes room for information to be collected from the point of view of individuals themselves as well as other sources. This expanded model also shows a broadening in the focus of the measurement of health beyond mortality, disability and functioning status' to include a measure of well-being, emphasising a holistic approach to health and healthcare. This subjective well being also conceptualized as "Quality of life" has been defined as, "an individuals' perceptions of their position in life in the context of the culture and value system in which they live and in relation to their goals, standards, and concerns" (WHOQOL Group, 1998, p. 1570).

Quality of life therefore represents a broad and subjective valuation of the nature of one's life. According to Rosenbaum and Stewart (2004), quality of life must be a component of the ICF model in order to ensure that quality of life issues are also assessed when measuring health and functioning in individuals, reaffirming that physical, mental and social functioning are interdependent. Indeed quality of life within the ICF model can be positioned as an emergent and evolving phenomenon that affects all aspects of functioning that may be influenced by the health condition of the person, personal factors, as well as environmental factors. The inclusion of quality of life within the ICF model represents the position by the WHO; which goes beyond health conditions and functions when defining mental health, to include the subjective appraisal of the individual concerning their own health (WHO, 2001). According to the WHO (2001, p. 1) mental health is:

> "A state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community."

Mental health, therefore, is the basis for well-being and efficient functioning for both the individual and her community.

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The addition of the subjective perspective also encourages the use of qualitative methods for further theory as well as model building, and development and use of qualitative methods to obtain information on conditions as well as develop new interventions (Mcdougall, Wright, Schmidt, Miller & Lowry, 2010). This model has implications for perinatal mental health care delivery, as it elevates treatments and interventions from an assessment of symptom eradication to include an assessment of the impact mental health problems have on the functioning of the person in terms of the body functions, activities and participation.

This modified model goes further and looks past the effect of perinatal mental problems on just functioning, but also gives attention to the individual's perceived appraisal of their position in life with respect to their values and culture. It therefore places the individual at the center of all care. What is of critical importance therefore, becomes whether the care the person received by the individual, leads the individual to a better evaluation of her position in life. This presupposes that interventions cannot be rolled out en masse, but will have to acknowledge individual differences within groups and takes their views, aspirations and values into consideration in perinatal mental health care planning, assessment and intervention.

2.1.3 The stress-vulnerability model

The stress-vulnerability model (Zubin & Spring, 1977) is another critical theory upon which this research is based. The stress vulnerability model seeks to answer the question why some people but not others experience mental health problems under similar conditions and consequently adds to the understanding of the moderating effects of certain key variables such as social support and quality of intimate partner relationships.

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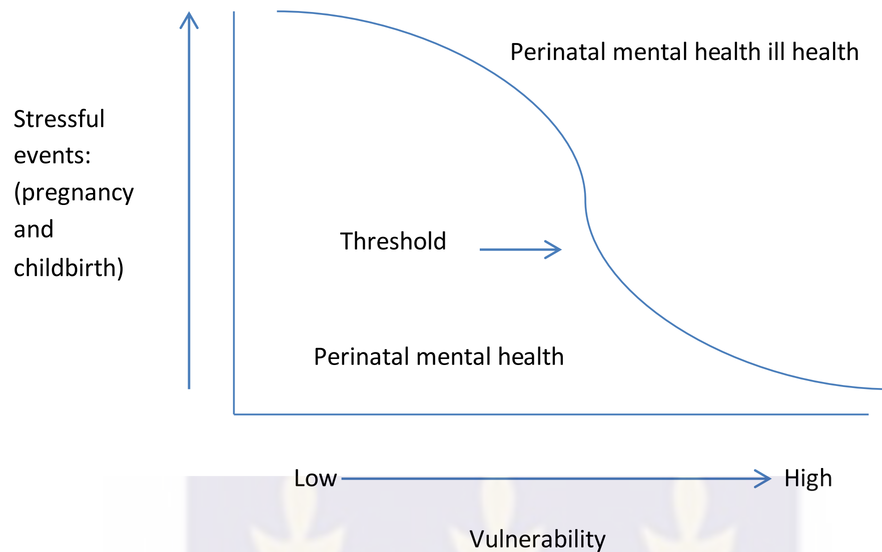

Figure.2. 4 Stress Vulnerability model (Zubin & Spring, 1977)

Figure 2. 4, shows the dynamics of the relationship between stressors or challenging events and vulnerabilities. It shows that the lower an individuals' vulnerability, the greater the amount of stress needed to reach the threshold. However an individual with a greater vulnerability will more quickly experience mental ill health. According to the stress-vulnerability model, perinatal mental health problems results from the interplay between basic vulnerabilities (biological vulnerability and acquired vulnerability); that interact with stress and increase the negative impact of stressful conditions, environmental stressors; that influence the onset and process of mental health problems, and personal and environmental protectors; that act as buffers and in so doing mitigate the impact of stress (Uys & Middleton, 2010, p. 197).

Vulnerability, refers to basic susceptibility to mental health problems and is affected by a person's genetic makeup, nutrition, stress before birth, complications of birth, and one's early childhood experiences such as abuse (Taylor et al., 2010). It is also affected by a person's use of alcohol or drugs. Vulnerability means that one is more likely to be affected by

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some conditions such as psychological disorders. Stress, in this model, is made up of the challenges faced by an individual and is influenced by an individual's social support, coping skills and involvement in activities that are meaningful. Environmental stress has the tendency to increase the effect of genetic vulnerabilities to certain disorders and also make symptoms worse. Stress tends to challenge a person and usually demands some form of adaptation and also emanates from life events such as pregnancy or the birth of a child, tense relationships, frequent arguments and resentment in family relationships as well as idleness such as a pregnant woman sitting around at home all day.

For instance, a woman who has an unintended pregnancy is suddenly thrust into a social role, where she has to negotiate balancing her needs, with that of a baby whose needs she must put before hers. For a woman who is not ready, this can be acutely stressful and may precipitate perinatal mental health problems (Mercier et al., 2013). Protective factors, as a component of the stress vulnerability theory, decrease an individual's biological vulnerability and stress outcomes. Protective factors include medication, good coping skills, and a good supportive environment. A meaningful but not too demanding structure, such as work in some form may also proffer protective benefits. The stress vulnerability model shows the complex relationship between vulnerability factors, stress factors and protective factors in determining the course and outcome of common perinatal mental health problems. It also throws light on the role of quality of intimate partner relationship and good social support in moderating the relationship between common mental health problems and quality of life.

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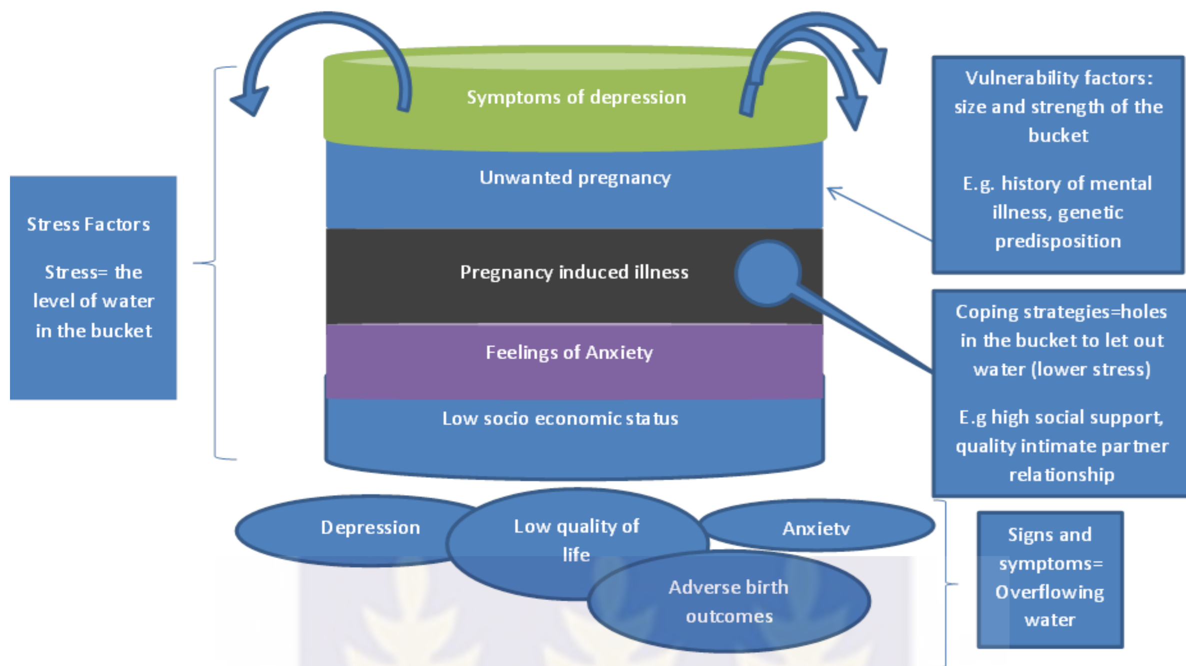

Figure.2.5 An analogy of the Stress vulnerability theory using the stress bucket, adapted from (Brabban & Turkington, 2002).

In figure 2.5 above, vulnerability factors are depicted as the size and strength of the bucket, therefore a shallow or weak bucket is considered as characterizing a more vulnerable individual. Stress factors, are depicted as the water level, which rises in its interaction with the properties of the bucket. Consequently a shallow bucket, which indicates more vulnerability, will make stress factors (water level) rise quicker than a deeper bucket. Coping strategies (social support, intimate partner relationship) are also depicted in figure 2.5 above, as the holes in the bucket that let water out (thus moderating the relationship between mental disorders and quality of life) and thereby lowering distress levels and preventing stress factors from rising rapidly and spilling over as low quality of life and other negative outcomes.

The stress vulnerability model builds on a strength perspective, by identifying the various mechanisms that intervene in the relationship between causes and outcomes. It

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therefore encourages the development of use of interventions that increase capacity for coping with real life situations. This theory also supports the early detection of perinatal mental health problems because it acknowledges vulnerability factors. Consequently, proper assessment; including a detailed history, may unearth some of these vulnerabilities even before they become perinatal mental health problems, based on interactions with other factors.

Although this model appears simplistic in outlook it is a good framework for organizing the various factors at play in mental health symptomatology and intervention. In terms of its practicality, there has been a failure to apply this model as originally intended. According to Zubin and Spring (1977), vulnerability could be acquired as a consequence of, "the influence of trauma, specific diseases, perinatal complications, family experiences, adolescent peer interactions, and other life events that either enhance or inhibit the development of subsequent disorder" (p.109). Vulnerability has however, been defined mainly in terms of genetic factors leaving the arena of acquired vulnerability. Blame for this has been given to powerful multinational drug companies who have pushed for the biological based theories of disorder in order to benefit from it (Read, Mosher & Bentall, 2004). A focus on the acquired vulnerability factors in this research will throw more light on how obstetric complications, for example, can leave women within the perinatal period vulnerable to diminished mental health and wellbeing. This will contribute to an expanded view of perinatal mental health and cause shifts in the way women who develop such complications are viewed and the intervention strategies that are put in place to help them.

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2.2 Review of related literature

In this review of related literature, issues researched in the area of perinatal mental disorders, social support, intimate partner relationship, adverse birth outcomes and quality of life have been synthesised and summarized.

2.2.1 Perinatal mental health disorders during pregnancy

2.2.1.1 Depression during pregnancy

The WHO defines depression as, “a common mental disorder, characterized by sadness, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep or appetite, feelings of tiredness and poor concentration”(WHO 2017, p.7). Due to the fact that some indicators of depression are regarded as “normal” in pregnancy, their psychological implications are therefore underrated; these include change in appetite, low energy and sleep levels as well as low interest in sex (Buist, 2006). Nonetheless, these symptoms are more prevalent in women with depression than in women who do not have depression during the perinatal period (with the exception of appetite change), which suggests that they might be genuine indicators of the disorder.

According to Josefsson et al. (2001), depression in late pregnancy is as high as depression after birth. A survey in Singapore found that 20% of perinatal women sampled had clinically significant depressive symptoms, with elevated risks among those with complicated pregnancies (Chen et al., 2004). In Kahuta, a town in Pakistan, 25% of pregnant women in the third trimester were depressed according to a study (Rahman, Iqbal & Harrington, 2003). Comparing pregnant women and matched non-pregnant women in Nigeria, Fatoye, Adeyemi and Oladimeji (2004) found that there was a higher incidence of depressive and anxious symptoms among pregnant women. In the Diagnostic and Statistical Manual fifth edition (DSM-5), depression with peripartum onset, is a new addition that acknowledges antenatal depression, capturing it under the diagnosis of a major depression

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(APA, 2013). Major depression in women has been found to be correlated to adverse birth outcomes (Räisänen et al., 2014). A high comorbidity has also been found between depression and anxiety during pregnancy (Verreault et al., 2014).

2.2.1.2 Anxiety disorders during pregnancy

> "Anxiety disorders refer to a group of mental disorders characterized by feelings of anxiety and fear, including generalized anxiety disorder (GAD), panic disorder, phobias, social anxiety disorder, obsessive-compulsive disorder (OCD) and post-traumatic stress disorder (PTSD)"(WHO, 2017 , p.7)

According to Sutter-Dallay et al. (2004), 24% of pregnant women have been reported as having an anxiety disorder, with anxiety disorder due to a medical condition and generalized anxiety disorder twice as prevalent among pregnant women compared to non-pregnant women (Goodman et al., 2014). Although research on the course of anxiety disorders in the perinatal period appears insufficient; anxiety during pregnancy may be adaptive in shaping women's preparedness for that most important transition. There is evidence that anxiety varies normally through pregnancy, peaking in the first and third trimester (Howard et al., 2014). Anxiety has also been found to be more prevalent than depression across all stages of pregnancy (Lee et al., 2007). Furthermore, women who experience anxiety during pregnancy are three times more likely to be depressed than women who are not anxious (Mohammad Yusuff et al., 2015). Comorbidity of depression and anxiety leads to more serious effects on the psychosocial functioning of the individual leading to increased suicidal tendencies and longer periods of recovery (Pollack, 2005). Despite earlier views that perinatal mental health did not have an impact on neonatal health or obstetric outcomes, there is evidence that maternal anxiety during pregnancy has negative effects on birth weight and on later behavioural and emotional problems in the child (O'connor, 2002; Texiera, Fisk & Glover, 1999).

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2.2.2 Perinatal mental disorders after birth

2.2.2.1 Depression after birth

Postpartum depression is a construct that refers to both major and minor depression arising from childbirth (Paykel, 2002). Both the ICD-10 and DSM-5 do not characterize it as a distinct disorder (Paykel, 2002). However, there is evidence that postnatally, about 10 – 15% of women in high-income countries (HICs) and 10.0% to 34.5% (Adewuya, Fatoye, Ola, Ijaodola & Ibigbami, 2005) in low-income countries (LICs) will experience non-psychotic depression in the year following childbirth, with the highest risk said to be in the first few weeks after childbirth (Epperson, 1999).

Motherhood entails great sacrifices on the woman's part, and taking care of a baby may prevent a woman from social and other income generating activities. It may also diminish her sense of independence and may throw in additional stresses in the form of night feeding regimens that may lead to sleep deprivation. A woman who has just given birth may also still be suffering pain as a result of episiotomies, caesarean section or other forms of assisted labour procedures. They may also have had a traumatic labour and may not yet be emotionally ready to take on the responsibility of a baby with its incessant demands. These challenges place high demand both on individual's psychological resources and on existing relationships and may lead to perinatal mental health problems. That being said, there are a number of factors that could influence depressive symptomatology in the often tumultuous first year after childbirth (Evans et al., 2001) however, it is usually the case that manifestations of depression during that period are automatically associated with childbirth (Scottish Intercollegiate Guidelines Network, 2002).

Psychological distress after birth can be conceptualized as fitting one of three distinct conditions, of differing severity: maternity blues/transient mood disturbance, depression and psychotic illness/postpartum psychosis (Brockington, 1996). There is still uncertainty as to

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the characterization of postnatal depression as a perpetuation of an existing condition, or whether its first occurrence is after childbirth. From the literature, there is no accepted definition of what constitutes the postpartum period and therefore there are uncertainties about the length of time after delivery, that depression can still be considered as postnatal in onset (Cooper & Murray, 1997; Paykel, 2002). Depression after childbirth increases about three fold in the first months after delivery and apart from this time period, it has not been proven that depression occurs more frequently than at other times in a woman's reproductive period (Cox, Murray & Chapman, 1993).

The effects of surgery such as an extended period of physical recovery, tiredness and possible disruption of maternal confidence may serve as a harbinger of perinatal mental health problems (Garel et al., 1990; Brown & Lumley, 1994; Rowe-Murray & Fisher, 2001). According to research, events at childbirth such as modes of delivery can cause post-traumatic stress, although the effect is not direct, and seems to be toned down by the quality of care and personal support (Ayers & Pickering, 2001).

2.2.2.2 Anxiety after birth

According to Dennis, Falah-Hassani and Shiri (2017) not much research has been conducted into anxiety disorders during the perinatal period. However according to Buist, Gotman and Yonkers (2011), there is evidence to show that generalized anxiety and anxiety symptomatology in general decreases during pregnancy and after birth. Anxiety rates of about 13% have been reported in HICs (Vesga-Lopez, Blanco, Keyes, Olfson, Grant, & Hasin, 2008) with similar rates reported in LICs (Fisher et al., 2012). A meta-analysis by Russell, Fawcett and Mazmanian (2013) showed a higher risk of obsessive-compulsive disorders in pregnant women as well as women who have had a baby as compared to women outside those groups. A systematic review of 35 studies from Africa about the prevalence of postnatal anxiety showed a rate of 14% (Sawyer & Smith, 2010).

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According to Field (2017), most studies on anxiety differ in definitions, scales, cut-off scores and severity indexes used, as well as differences in assessment time points and settings of data collection, making it difficult to compare results. Postnatal anxiety experienced by mothers can take the form of generalized anxiety disorder, obsessive-compulsive disorder and health anxiety among others. These disorders are usually characterized by feelings of restlessness, disturbances in the sleep cycle; either difficulty in falling asleep or in staying asleep, irritability, concentration problems, tension in the muscles as well as appetite changes (Mahenge, Stockl, Likindikoki, Kaaya, & Mbwambo, 2015). Other symptoms include excessive worry about their health as well as the health of their baby (the feeling that there is something wrong with the baby unassuaged by medical checks) (APA, 2007). This excessive worry interferes with everyday functioning and results in incessant checking on the baby; including waking up the baby even when they are sleeping in order to reassure themselves that the baby is breathing and also behaviours such as compulsive cleaning. Distressing thoughts and images of the mother herself, as well as others, hurting the baby become a constant obsession (although there is no intention on the part of the mother herself to do that). Some women may also experience panic attacks characterized by trembling, shortness of breath chest discomfort and dizziness among others (APA, 2007). As told by a mother who experienced postnatal anxiety:

> "I was overly worried about everything. If I gave James a bath, my head would fill with pictures of him slipping under the water and drowning… whenever I stood at the top, carrying James, I would see myself falling through the air and dropping him. I was so terrified, I'd have to shuffle down each step one at a time on my bottom to keep him safe." ("Post-natal anxiety: The little-known condition affecting thousands of mothers", 2010).

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2.3 Correlates of perinatal mental health problems

An unhealthy relationship between the woman in the perinatal period and her partner has been characterized as a correlate of depression during the perinatal period (Beck, 2001). This low-quality intimate partner relationship is usually indicated by increased conflict, inadequate practical and emotional support, excessive alcohol intake and abiding by rigid traditional sex role expectations (Beck, 2001; Nakku, Nakasi & Mirembe, 2006).

In Nigeria and Nepal, polygamous relationships have been found to elevate the risks associated with mental health problems more than monogamous ones (Fatoye, Adeyemi & Oladimeji, 2004; Ho-Yen, Tschudi Bondevik, Eberhard-Gran & Bjorvatn, 2007) but research in Ethiopia has not shown this to be the case (Hanlon et al., 2009). This poor quality relationship between the would-be parents has a significant impact on the health of women during the perinatal period and has been shown to differentiate between depressed and non-depressed women in Hong Kong, India, Pakistan, Brazil and Vietnam (Chan et al., 2002; Da Silva et al., 2003; Fisher et al., 2004; Rahman, Iqbal & Harrington, 2003; Rodrigues et al., 2003).

Redshaw and Heikkila (2010) in their longitudinal study which followed babies born in the year 2000, found out that only 0.3% of fathers were unaware of a pregnancy they were responsible for. Also, only 4.4% of participants admitted not being in a relationship with the fathers of their babies when they were born. However of that number, 25% of the father's involved did sign the birth certificate. They also found out that 25% of their sample had partners who kept in touch with infants and mother nine months after birth. According to Holopainen (2002), mothers who are depressed, are more likely to turn to partners more than any other person, including health professionals for support. Similarly Cox et al. (2008), have found that perceived support from the father of one's baby is linked to lower depression rates and shorter hospital stay for women experiencing postpartum disorder (Grube, 2004).

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An observational study by Edhborg et al. (2003), found out that in instances where mothers were depressed, most infants formed secure relationships with their fathers. Furthermore, according to a study by Chang, Halpern and Kaufman (2007) which followed for over ten years, a large group of children, concluded that fathers who were involved in their children's lives ameliorated the negative behavioural effects of maternal depression. Other studies however, have not confirmed this moderating role of fathers. According to a study by Jorm et al. (2003), in cases where tensions within the family are high, where there was low maternal acceptance, where the children were young or where the father is depressed himself, the positive relationship between the father and children was not significant in creating a buffer against the effects of maternal depression.

The lack of social support was also cited as a cause of mental health problems in The Gambia (Sawyer et al., 2011). According to Fisher et al. (2012), living in a nuclear household and not having a positive relationship with one's mother increased the risk of perinatal mental health problems as these usually constitute major sources of social support. However, this finding has not been corroborated in other studies (Gao, Chan & Mao, 2009). The incidence of recent migration or relocation and its concomitant social disruption also increases women's risk of adapting to motherhood, as this has been linked to reduced social support (Parvin, Jones & Hull, 2004).

Groups found to be at a greater risk of depression include unemployed parturient women or those in low-status and unskilled occupations according to Rubertsson et al. (2005) and also women who have to return to work sooner than desired or work for a larger number of hours than desired (Gjerdingen & Chaloner, 1994). There is strong evidence also that poverty directly affects maternal mental health in resource-poor countries (Cooper et al., 2002). Furthermore women who encounter restrictions associated with strong gender-role expectations also experience a higher risk of perinatal mental health problems. The absence

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of reproductive alternatives, such as contraceptive use, can lead to unwanted pregnancy, which frequently has become linked with a greater probability of perinatal mental health problems (Inandi et al., 2002). Unwanted pregnancies have also been found to be related to a high incidence of anxiety that does not reduce during pregnancy but continues into the postpartum period (Scottish Intercollegiate Guidelines Network, 2002).

2.4 Common Perinatal Mental Health Problems and Birth Outcomes

Sub-optimal birth outcomes including; low birth weight, preterm birth, admission at the neonatal intensive care unit, as well as various forms of morbidity and also mortality have been associated with psychological difficulties during pregnancy (Dunkel Schetter, 2011; Grote et al., 2010; Heaman et al., 2013; Staneva et al., 2017). The WHO (2009) has put forward preterm (<37 weeks of completed gestation) birth as one of the leading causes of infant mortality and mortality, with preterm babies facing higher risks of health and developmental problems. Studies from India, Pakistan, Brazil (Gavin, Melville, Iyengar, & Katon, 2010; Grote et al., 2010; Rahman, Bunn, Lovel & Creed, 2007) have found associations between mental health problems during pregnancy and low birth weight.

However, studies from United States, Sweden, China and Ethiopia (Andersson, Sundström-Poromaa, Wulff, Åström & Bixo, 2004; Chung, Lau, Yip, Chiu & Lee, 2001; Grigoriadis et al., 2013; Hanlon et al., 2009; Suri et al., 2007) have shown no significant associations. In high-income settings however, positive associations have emanated from research among deprived communities (Diego et al., 2009). Pesonen et al. (2016) conducted a study on depressive and anxiety symptoms and their associations with preterm birth and low birth weight. The sample size of 3376 was used and it had 14 measurement points from 12 weeks upwards, in order to get a comprehensive view of the mothers' emotional state throughout her pregnancy. The study found no significant associations between anxiety and depression, and preterm birth and low birth weight.

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Babies born before 37 weeks gestation are deemed to be preterm (U.S. National Library of Medicine, 2013). Preterm birth is highly associated with infant mortality especially among babies who are very preterm; that is, born before 32 weeks. Preterm babies, who survive, usually experience disabilities such as cerebral palsy resulting from neurological impairments (Centre for Disease Control, 2015). Causes of preterm birth range from infections during pregnancy, experience of diabetes in the mother, having more than one baby and genetic factors among others. Premature babies have more hospital admissions as compared to full-term babies in the first five years of their lives (Petrou, Hockley, Cook-Mozaffari, Henderson & Goldacre, 2003). They are more likely to have lower intelligence test scores and an increased likelihood of attention problems, as well as negative consequences on their language development and motor skills. They are also more likely to have conduct disorder, attention deficit hyperactivity disorder, poor growth as well as respiratory and ear infections (Hack, Klein & Glover, 1995). Mental health problems during pregnancy have also been associated with preterm birth (Fransson et al., 2010). According to Goldenberg (2008) almost forty percent (40%) of preterm birth is unaccounted for by physiological factors and WHO (2015a) reports that there is a degree of spontaneity associated with preterm birth.

According to Schellong et al. (2012), low birth weight is defined as the weight of a baby less than 2500 grams. Low birth weight, as well as preterm birth are significant public health concerns in view of the negative consequences they can have on the life expectancy and the development of the child (Mathews, Menacker & MacDorman, 2003). According to Mansell et al. (2016), there is an association between anxiety during pregnancy and low birth weight. However a study by Staneva, Morawska, Bogossian and Wittkowski (2017), on psychological distress and birth outcomes in a sample of 285 women measured at two time points and using the Revised Prenatal Distress Questionnaire and EPDS to measure mental

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distress, found that neither antenatal depression nor anxiety, were related to adverse birth outcomes.

According to Goldson (1999) babies who are preterm, who have difficulties such as respiratory stress and other birth defects that are life threatening, are often admitted at the neonatal intensive care unit (NICU) for treatment. Babies taken to NICU are usually fed via a nasogastic tube with a nasal or oral tube, are connected to a ventilator to maintain oxygen levels and are kept in an incubator. According to Mwaniki et al. (2012)**,** associations have been found between mental health disorders during pregnancy and admission at the neonatal intensive care unit.

According to Schetter and Tanner (2012), a biopsychosocial approach has been adopted in understanding adverse birth outcomes by bringing together risk factors existing at different levels including at the individual, interpersonal and societal levels. Mental health problems during pregnancy affect birth outcomes through both behavioural and biological pathways and are mediated by social as well as individual level factors (Dunkel Schetter, 2011). In terms of biological mechanisms underlying the relationship between perinatal mental health problems and adverse birth outcomes, the foetus coming into contact with high cortisol levels has been proposed as a biological mechanism. Cortisol which is a glucocorticoid does have positive effects on tissue formation in the development of the foetus, however high levels have adverse effects on the developing brain and also in later years of the child (Harris & Seckl, 2011).

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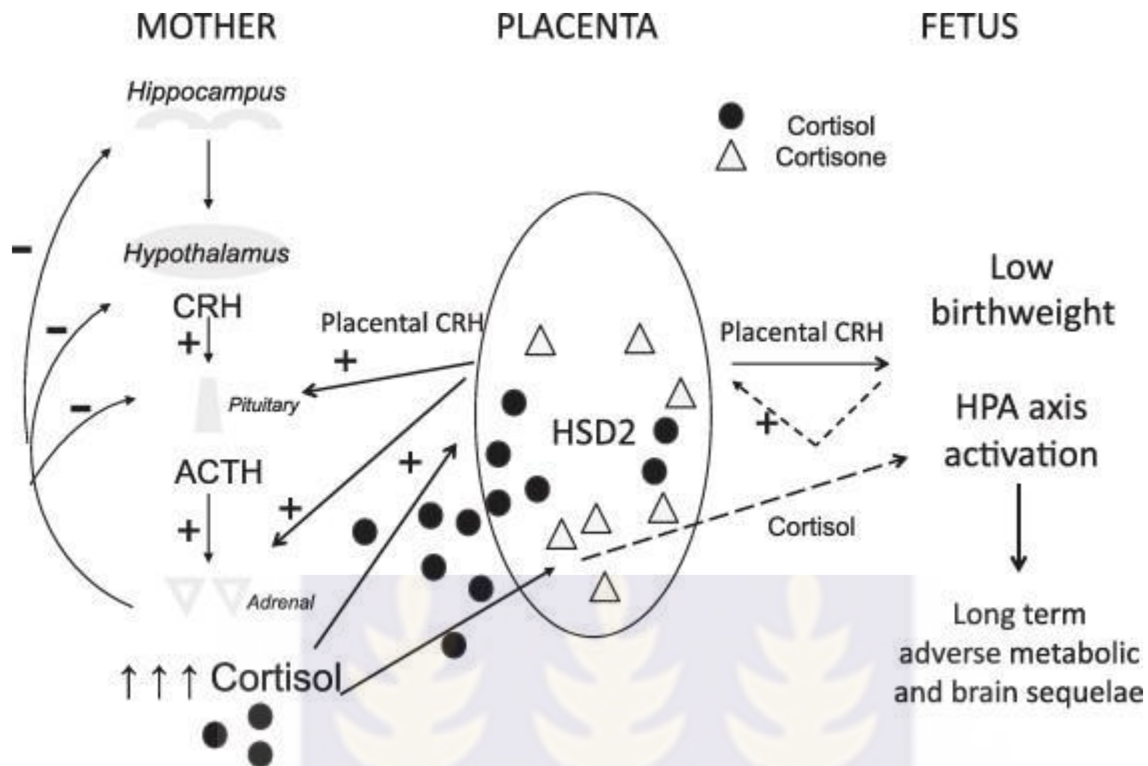

Figure 2.6. Signaling of glucocorticoid between mother, placenta and fetus (Reynolds, 2013).

CRH – corticotropin releasing hormone;

HSD2 – 11β hydroxysteroid dehydrogenase type 2

ACTH – adrenocorticotropin hormone

Figure 2.6 shows the interaction between the foetus, the placenta and the pregnant women as well as the effect of glucocorticoid exposure on the foetus. When the mother experiences stressful situations, the HPA (hypothalamic-pituitary-adrenal) axis of the mother is activated which leads to increased levels of cortisol. The pituitary and adrenal glands of the mother also increase cortisol levels upon stimulation by the mother's placental corticotrophin releasing hormones. This cortisol from the mother also stimulates the production of placental corticotrophin releasing hormones. The placenta then receives the cortisol which is broken into inactive cortisone by 11β hydroxysteroid dehydrogenase type 2 (HSD2) enzymes.

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However, the high levels of cortisol produced reduces the expression and activity level of these placentyl enzymes, thus reduing their buffering effects against the mothers cortisol, eneabling it to reach the foetus. The increased foetal metabolism, signals the placenta to also stimulate the production of corticotrophin releasing hormones. This overall increased exposure to cortisol levels cause both short term and longer term effects on the HPA axis of the child (Reynolds, 2013). Research has indicated that high levels of cortisol restrict blood flow to the feotus thereby restricting oxygen and nutrients and causing intrauterine growth restriction leading to low birth weight. Prostanoids which have also been implicated in uterine contractility are realesed during this period which may also contribute to preterm birth (Talge, Neal & Glover, 2007). Cortisol also affect the HPA axis of the feotus leading to changes that affect the child in later life, such as a heightened threshold for distress perception and also difficulty in emotional regulation (Duthie &Reynolds, 2013).

Other psychosocial mechanisms have also been posited. According to Vardavas et al. (2010) depression and anxiety make a woman more prone to risky behaviours that may put her baby at risk including smoking, taking drugs and the contracting of sexual transmitted diseases and infections that may all lead to adverse birth outcomes. The development of a depressive self- concept, and lessened commitment to the pregnancy, has also been linked to adverse birth outcomes through heightened stress appraisal to otherwise mundane stressors, and is characterized by a lack of satisfaction with one's current position in life, a sense of hopelessness and pessimism (Lydon et al., 1996; Seguin et al., 1995). This depressive self-concept could lead to stress hormone releases, as well as poor behavioural choices such as poor sexual decisions, poor nutrition and alcohol and drug intake that heighten the risk of having adverse birth outcomes. The mechanisms between perinatal mental disorders and adverse birth outcomes could therefore occur through some of the above mentioned mechanisms.

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2.5 Common Perinatal Mental Health Problems and Quality of Life

There have been growing calls for a paradigm shift, away from a deficit oriented focus on mental illness to more positive approach that focuses on wellbeing (Bhui & Dinos, 2011; Stewart-Brown, 2013). This perspective has been argued as being more in keeping with the definition of health put forward by the WHO (Böhnke, Lutz & Delgadillo, 2014). This definition states that, "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO, 2006, p. 1). According to the WHO, quality of life is defined as "an individuals' perceptions of their position in life, in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards, and concerns" (WHOQOL Group, 1998, p. 1570). Quality of life therefore is the individual's appraisal of general life fulfilment (Meeberg, 1993).

Domains of quality of life include the ability to partake in everyday activities that satisfy an individual's sense of wellbeing in terms of functioning and health. It therefore encompasses the physical, social, spiritual and cognitive wellbeing of the individual (Ferans, 2005). As yet, there exists no single standard and uniform definition of the concept of quality of life (Awad & Voruganti, 2000; Basu, 2004). Thus, definitions are couched based on the setting in which a study is based, the state of the disease under study and its treatment, as well as the expectations of the society at any point in time (Awad & Voruganti, 2000). Research has shown that mental health problems do have a negative effect on quality of life (Graf, Lauber, Nordt, Ruesch, Meyer & Rossler, 2004) and consequently, better quality of life, may therefore be influenced by factors such as better mental health, high social support, and more effective professional–patient interaction among people who are depressed (Cummins, 2005; Koivumaa-Honkanen, et al., 2001; Kuehner, 2002).

According to Jansen et al. (2011), individuals who experience common mental disorders have a decreased quality of life, and an increased number of days per month lived

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with ill health as compared to the general population. A study by Miasso et al. (2017) assessed the relationship between common mental disorder and quality of life using the World Health Organization Quality of Life Assessment-Bref scale (WHOQOL–Bref) and the Self-Reporting Questionnaire (SRQ 20) to measure distress. Their findings showed that CMD's had a significant association with quality of life as compared to the general population.

Similarly, Mourady et al. (2017) undertook an observational cross-sectional study conducted among a convenient sample of 141 healthy pregnant women, in Beirut, using five questionnaires: WHOQOL-brief (WHO quality of life questionnaire, brief version, ISI (Insomnia Severity Index), PSWQ (Penn State Worry Questionnaire), ZSRDS (Zung Self-Rating Depression Scale), and Pregnancy Physical Activity Questionnaire (PPAQ). One of its objectives was to ascertain the relationship between quality of life and depression during pregnancy. Findings showed that depression was significantly related with a reduced quality of life in women. Measures were taken to cover all three trimesters of pregnancy, however this was a cross sectional study, which might have limited interpretations on causality.

2.6 A brief description of the maternal health care system in Ghana

Maternity care in Ghana falls under the Reproductive and Child Health Department of the Ministry of Health's Family Health division. A core mandate of the Reproductive and Child Health Department is to ensure safe motherhood through antenatal, safe delivery and postnatal care. In Ghana, medical services are generally accessible from government funded health institutions, Christian missions as well as private practitioners. According to Ghana Health Service (2014) 86.7% of the antenatal care that pregnant women received in Ghana was from a doctor, a midwife/nurse or an auxiliary midwife. In terms of public health care services, health care is provided at regional hospitals and at the district level. At the sub

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district level, health care is accessible from health centers as well as through community outreach services such as the Community-based Health Planning and Services (CHPS). Polyclinics which are the urban counterparts of rural health centers are the first point of call for clients in urban areas and are usually found in metropolitan areas. They are usually headed by physicians and are able to offer more elaborate services than their rural counterparts (GHS, 2017). Traditional Birth Attendants as well as Traditional Healers constitute a major part of women's pathway to care duirg the perinatal period in Ghana (Bliss & Streife, 2014). In a systematic review on the determinants of antenatal care in developing countries, the cultural beliefs of the inhabitants featured prominently (Simkhada, Teijlingen, Porter, & Simkhada, 2008). In Ghana, the pregnancy and childbirth period is traditionally viewed as a dangerous time because of women's susceptibility to diabolical spiritual attacks. Care for the woman during this period is therefore multifaceted, encompassing medical, psychosocial, and spiritual facets (Allman, 1994). Due to the belief in the supernatural, some women tend to deliver in shrines in keeping with their beliefs in the traditional belief system, while others who adhere to Christian beliefs, deliver in prayer camps; residential communities set up by churches in order to facilitate spiritual help for their faithful (Sackey, 2002). Cultural influences also affect women's pathways to maternal care. By making the services they provide more inclusive of religious influences, incorporation of psychosocial care and their attention to cultural norms, services provided by Traditional Birth Attendants continue to be appealing, enabling them to enjoy a good patronage (Pfeiffer, 2013).

In 2008, maternal mortality was declared a national emergency with an estimated 580 deaths per 100,000 live births (GSS, 2007). Subsequently, the free maternal healthcare program was instituted by The National Health Insurance Scheme (NHIS) to facilitate Ghana meeting the Millennium Development Goals (MDG) 4 and 5 which are to reduce child mortality and improve maternal health (Ministry of Health, 2011). The free maternal policy

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provided free access to antenatal, prenatal and postnatal care (Ministry of Health, 2013). However there are indications that systemic challenges as well as human inefficiencies has reduced its effectiveness and limited its benefits to pregnant and postnatal women. A study by Dalinjong, Wang, and Homer (2018) has shown that women do make payments even under the free maternal health policy by way of drug purchases, paying for ultra sound and laboratory services and also paying for ambulance services when they are referred to other health facilities. As at the end of 2015, it was estimated that Ghana's maternal mortality ratio stood at 319 per 100,000 live births (UN, 2015).

2.7 Critical Evaluation of Previous Perinatal Mental Health Research in Ghana

In terms of perinatal mental health research in Ghana, there have been limited scientific studies, and much of the existing and earlier studies focused on more severe psychotic disorders (Turkson, 1992). Research conducted using the EPDS in two small health centers in the Eastern Region of Ghana, indicated a depression rate of 10.0% among mothers who were HIV positive (Nair & Pillay, 1997). Recent studies have shown that perinatal depression is common and has adverse impacts on children (Gold, Spangenberg, Wobil, & Schwenk, 2013; Okronipa et al., 2012; Weobong et al., 2009).

According to Weobong et al. (2009), a rate of 11.3% of depression measured by the Comprehensive Psychopathological Rating Scale (CPRS), was found among women 5-11 weeks postpartum. It was based on a comparative validity study to investigate effective screening instruments for common mental disorders in the postnatal period in Ghana. The research was carried out in Kintampo, a rural community in 2005 and utilized a quantitative design method. This research would have benefited from an initial qualitative study that explored the meanings of the various constructs of the instruments within the local population with an aim to achieve cultural equivalence and sensitivity in instrumentation. It may

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therefore have left out some of the contextual factors that are important for a fuller and broader understanding of the phenomenon under study.

Barthel et al. (2014) also researched into the course of ante- and postpartum generalized indications of anxiety in West-African women, and their relationship with child and mother traits. Indications of anxiety were assessed using the Generalized Anxiety Disorder scale (GAD-7) at three months before birth and three (3), twelve (12) and twenty four (24) months after birth for seven hundred and seventy eight women (778). Participants (79.8%), had persistent low anxiety symptoms, while 11.4% of the women had high anxiety scores. About 5.4% of participants also demonstrated increasing indications of anxiety symptoms over time with only 3.3% of the women having transient anxiety with high scores at three (3) and twelve (12) months after birth. Although this study utilized a longitudinal methodology, it relied solely on a quantitative approach to data collection and analyses and did not include a qualitative component in the research, which could have captured rich data based on women's subjective experiences. The scope of this study was also limited to anxiety.

Bindt et al. (2013) also undertook a study to explore the relationship between depression and anxiety in pregnancy and birth outcomes among mother/child dyads in Côte d'Ivoire and Ghana. Their study comprised of a one thousand and thirty (1,030) low-obstetric risk prospective cohort. Questionnaires used included the Patient Health Questionnaire-9 (PHQ-9) for depression and the Generalized Anxiety Disorder-7 scale (GAD-7) for anxiety. Their findings indicate that depression and anxiety were not independently predictive of adverse birth outcomes among their sample. The setting of this study was in urban areas in Cote D'Ivoire and Ghana specifically, Kumasi. However the socio cultural dynamics of Accra, being the capital city are different from Kumasi and it is important to also study what pertains to Accra also, as this may yield different results from the study done in Kumasi.

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Vousoura (2014) undertook a study in rural Ghana (Bonsaaso) and Uganda (Ruhiira) investigating psychological distress among mothers with young children and its relationship with the health and nutritional status of the child. The research was cross sectional and based on baseline data from the Millennium Villages Project. Results indicated a relationship between maternal distress and child under nutrition. However, the relationship between maternal mental health distress and poor child outcomes in the rural setting showed only a partial support. This study used the Kessler 6 scale to measure nonspecific maternal distress. Although it is a validated measure, it is not as widely used as the Edinburgh Postnatal Depression Scale (EPDS) which this current study utilized and which is the most widely used screening tool for depression among women in the perinatal period (Sungani & Chipps, 2017). Using the EPDS will enable easier cross cultural comparisons of the study findings, therby contributing to the global literature on perinatal mental disorders.

Similarly, Weobong et al. (2013) in a large population-based cohort research in Kintampo; a community in rural Ghana, investigated depression during the antenatal period and the postnatal period, screening thirteen thousand, nine hundred and twenty nine (13, 929) women with the 9- item Patient Health Questionnaire (PHQ-9). Findings indicate that there was a low prevalence of postnatal depression (3.8%), and a higher prevalence of antenatal depression (9.9%). This study again used the 9-item Patient Health Questionnaire and was also based in rural Ghana. This setting for this current study however, is Accra which is the capital of Ghana and would take advantage of the multicultural and diverse dimensions that a setting like that will lend to any research such as this one.

Weobong et al. (2014) also looked into the correlation between antenatal depression and negative outcomes for mothers and their new born babies in rural Ghana. Results from this study did not find correlations between antenatal depression and neonatal deaths, still births, later start of breastfeeding, or not-exclusive breastfeeding, low birth weight, having

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one's baby at a health facility or adhering to antenatal care attendance. However, it was marginally associated with preterm births. This study was also based within a predominantly rural area and utilized a quantitative methodology.

Scorza, Owusu-Agyei, Asampong and Wainberg (2015), conducted a study exploring the culture and context-specific indications of perinatal depression among women in Ghana. The experiences of women as well as perceptions of close relations were studied. Women, grandmothers, and fathers in this study in rural central Ghana reported experiences of maternal depression identical to what is experienced in other parts of the world. However, they used different terms to conceptualise their symptoms. 'Thinking too much' was the term that came up most frequently in their descriptions of their experiences. The responses from all participants in Key Informant Interviews (KIIs) and Focused Group Discussions (FGDs) suggested that onset of depression is more frequent before childbirth than after delivery, though the depression often extended into the postpartum period. Thus, it may be more applicable and comprehensive to refer to perinatal depression, as opposed to the more well-known term, postpartum depression, in this context. This study utilized a solely qualitative approach. And may also have missed on the benefits of using a mixed methodological approach as is done in the current study.

From the review of the above studies, it is clear that there has been no comprehensive study on perinatal mental health problems in Accra; the economic, financial, commercial and administrative hub of the country. The peculiarity of Accra is compelling when one takes into consideration the myriad of social and economic pressures, as well as comparatively easier access to information and health care. Significantly, no study has been cited in the literature concerning research in the perinatal mental health in Ghana which has combined a prospective panel study approach and a qualitative approach in a mixed method design.

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2.8 Gaps in research that this thesis seeks to fill

This current study intends to introduce a psychological perspective to the field of maternal health in Ghana, shifting focus from biomedical studies and theories to a highlighting of the psychological variables that also influence the health outcomes of women and infants within the perinatal period. This study further incorporates a qualitative study, shifting from looking solely at mental disorders and their outcomes, to examining the multiple contextual risk factors and its more complex relationships. Also, the current study intends to study the same cohort of women during pregnancy and after birth in order to ascertain the patterns of change in various variables of interest and how they influence each other across the perinatal period. Similarly, this current study may be one of the first in Ghana to utilize 3 separate phases in the study of perinatal mental health in Ghana with the aim of getting a holistic view of the phenomenon, thereby building a solid evidence base for treatment and intervention strategies. Additionally, one crucial gap this study intends to fill is its focus on the quality of life of women. Assessing the subjective perception of the woman concerning her own health and wellbeing, within her culture and value systems, places her at the heart of care. These gaps in previous studies make a compelling case for this study.

2.9 Summary of Literature Review

This current study was based on three theoretical frameworks; the biopsychosocial model, the International Classisfication of Functioning, disability and health model expanded to include quality of life and the stress-vulnerability theory. Global literature as highlighted previously, has shown that both depression and anxiety symptomatology may be experienced by women during the perinatal period, although global consensus has not yet been reached on standard definitions of perinatal mental disorders. Correlates of perinatal mental health problems have been found to include, social support, intimate partner relationship, ability to access economic resources and societal gender inequalities. Perinatal mental health problems

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also have consequences on women, in terms of its effect on their quality of life and also in terms of their birth outcomes. Finally perinatal mental health research that has been conducted in Ghana is usually limited in scope and methodology; with most based in rural settings and focusing on the effects on the child as against the mother. Also, most of the studies have an over reliance on quantitative methods and cross sectional designs.

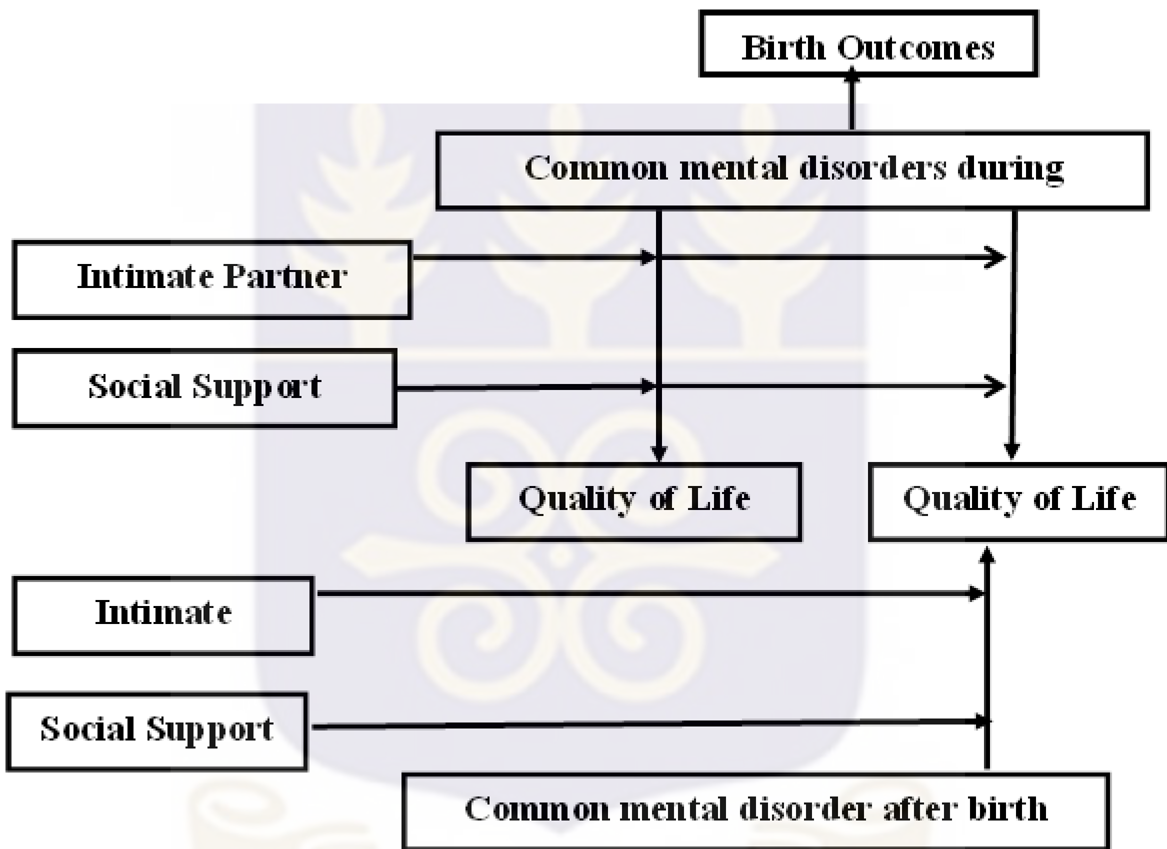

Figure 2. 7 Conceptual Framework of the Study Depicting the Hypothesized Model

In Figure 2.7 above, it was anticipated that there will be a significant relationship between common mental disorders during pregnancy (depression and anxiety) and birth outcomes. It was also anticipated that there will be a significant relationship between common mental disorders during pregnancy and quality of life during pregnancy and after birth and that social

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support during pregnancy and intimate partner relationship during pregnancy will moderate those relationships. Again it was anticipated that there will be a significant relationship between common mental disorders after birth and quality of life after birth with social support after birth and intimate partner relationship after birth moderating that relationship.

2.10 Hypotheses and Research Questions

The following understated are the hypotheses and research questions tested under each of the three studies within this thesis work. They are based on the review of the literature and the objectives of the study.

2.10.1 Study One

Research questions in Study One (a qualitative study) consisted of the following:

1. What are women's experiences during pregnancy?
2. What mental health problems do pregnant women experience?
3. What coping mechanisms are employed by pregnant women to handle the experiences within that period?
4. What are pregnant women’s experiences of the healthcare system?

2.10.2 Study Two

Hypothesis in Study Two (a quantitative study) comprised of the following:

2.10.3 Hypotheses

Hypothesis 1a: During pregnancy, CMDs will be negatively related to quality of life.

Hypothesis 1b: After birth, CMDs will be negatively related to quality of life.

Hypothesis 2a: During pregnancy, Intimate partner relationship will moderate the relationship between CMDs and quality of life.

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Hypothesis 2b: After birth, Intimate partner relationship will moderate the relationship between CMDs and quality of life.

Hypothesis 3a: During pregnancy, Social support will moderate the relationship between CMDs and quality of life.

Hypothesis 3b: After birth, Social support will moderate the relationship between CMDs and quality of life.

Hypothesis 4: CMDs during pregnancy will be negatively related to quality of life after birth.

Hypothesis 5: Intimate partner relationship during pregnancy, will moderate the relationship between CMDs during pregnancy and quality of life after birth.

Hypothesis 6: Social support during pregnancy, will moderate the relationship between CMDs during pregnancy and quality of life after birth.

Hypothesis 7: CMDs during pregnancy will be significantly related to birth outcomes.

2.10.4 Study Three

Study Three (a qualitative study) utilised three approaches to data collection (see methodology, Chapter 6):

2.10.5 In-depth interviews

The following are the research questions that data gathered from the In-depth Interviews (IDIs) helped in answering:

1. What are women's experiences during childbirth and after birth?
2. What are women's experiences of common perinatal mental health disorder?
3. What are the personal and community resources available to women to enable them cope with perinatal mental disorder?

2.10.6 Joint Couple Interview

The following are the research questions that data gathered from the Joint Couple Interview helped in answering:

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1. What are the experiences of the period after birth for the couple?
2. What are the perceptions and experiences of perinatal mental disorder for the couple?
3. What is the wife's perception of the role of her husband during the perinatal period?
4. What is the understanding of the husband about his own role and obligations to his wife during the perinatal period?

2.10.7 Key Informant Interviews

The following are the research questions that data gathered from the Key Informant Interviews helped in answering:

1. What is the nature and scope of perinatal mental health care services in Accra?
2. How can perinatal mental health care services in Accra be made more accessible?

2.11. Operational definition of terms

For the purposes of this study, the following terms are used such that:

1. Common mental disorders: is defined in this study as depression and anxiety symptomatology as captured on the Edinbrugh Postnatal Depression Scale (EPDS) and the Depression Anxiety Stress Scale -21 (DASS-21).
2. Birth outcomes: In this study include low birth weight, prematurity and admission at the neonatal intensive care unit.
3. Birth weight: Weight of the baby at birth as indicated in the Child Health Records booklet
4. Low birth weight (LBW): Infants are considered as having a low birth weight if they weigh 2,500 grams or less.
5. Preterm birth: is defined as infants born before 37 weeks of gestation.
6. Admission at Neonatal Intensive Care Unit (NICU): is defined as admission at NICU within 24 hours of baby's birth.

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CHAPTER THREE

GENERAL METHODOLOGY

3.1 Introduction

This chapter discusses the general methodology used in the three studies in this research. Firstly, the research setting is described with emphasis on the key geographical and socio-demographic characteristics. The chapter then proceeds to outline the methods used in answering the principal research questions in this research. It also includes a description of the ethical issues in this research and concludes with a section on researcher reflexivity.

3.2 Research Setting

The current research took place within the Accra Metropolitan Area of the Greater Accra Region, which is the capital city of Ghana. The Accra Metropolitan area is an urban area with a total population of 1,665,086 reported in 2010 (Ghana Statistical Service (GSS), 2012). Females are in the majority with 51.9% of the population with males forming 48.1%. Due to its cosmopolitan nature, migrants make up about 47.0% of the population (Ghana Statistical Service, 2010). The Gas are the indigenes of the area and the main language spoken is Ga.

3.3 Methods

This study adopts a mixed-method framework and therefore the rationale for the choice of the mixed-method technique is examined. According to Creswell (2009), the connection between assumptions, strategies of inquiry and specific methods, is a critical part of every research design. In this current research, pragmatism is used as the dominant worldview of the study, while a mixed method design is proposed as the strategy of inquiry

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(Tashakkori & Teddlie, 2003). The research objectives and the appropriate method selected are illustrated in Table 1.

Table 1. Research objectives and research method selected

Research Objective	Research Method Used
To explore women's experiences during the perinatal period and their perceptions of perinatal mental health problems.	Qualitative
To examine the quality of life in women who experience common perinatal mental health disorders.	Quantitative
To examine the factors that moderate the relationship between common perinatal mental health disorders and quality of life.	Quantitative
To determine the birth outcomes of women who experience common perinatal mental health disorders.	Quantitative
To explore perceptions on perinatal mental health care services in Accra.	Qualitative
To explore coping factors related to perinatal mental health problems among participants.	Qualitative

3.3.1 Justification for the Research Paradigms and Methods

Perinatal mental health is a field that has gained prominence in the past couple of years, although it has long been in existence. Its multifaceted nature makes it inecessary and possible to be studied via various approaches and from a wide variety of angles. Thus, limiting the research of perinatal mental health to a single pattern is unjustifiable, hence the choice of pragmatism as the paradigm underlying this study. According to Guba and Lincoln (1994) the emphasis of post-positivists is on prediction and explanation. Constructivists also assume as their core aim; an exploration of the multiple, holistic and often conflicting realities of participants (Lincoln, 1990). Furthermore, the core tenet of critical theorists is a

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focus on change, empowerment and action (Ford-Gilboe at al., 1995). Pragmatists on the other hand, welcome all viewpoints and a pragmatic approach is aimed at solving precise problems (Creswell, 2008; Teddlie & Tashakkori, 2009).

Relating to its ontology; pragmatists are of the view that "Truth is what works at the time, and it neither absolute nor unchanging (Creswell, 2008, p. 11). Epistemologically, pragmatists see objective and subjective interactions as going hand in hand, rather than being used separately (Teddlie & Tashakkori, 2009). Pragmatists also regard both the quantitative and qualitative research methods as important and may choose either of them based on the research question(s) (Teddlie & Tashakkori, 2009). Based on their purposes and needs, individual inquirers are free to choose the techniques, methods, and procedures that suit them best (Creswell, 2008). To pragmatists, research problems are more important than methods; hence they choose whatever method will be suitable for the research problem (Creswell, 2008).

Mixed methods research is commonly associated with pragmatism (Greene, 2008). Various researchers propose that mixed methods research is a research model of its own and coexists with both; the quantitative and qualitative paradigms (Teddlie & Tashakkori, 2009). According to Denscombe (2008), a mixed methods research is partnered with pragmatism as its philosophical basis due to three reasons. Firstly, pragmatism allows the fusion of two different methods which have different philosophical underpinnings (Denscombe, 2008). Secondly, Denscombe claims that, it provides an alternative approach to researchers who want to have elements of quantitative and qualitative approach in their study. Thirdly, it is according to Denscombe (2008) 'a new orthodoxy' that makes a mixed method design a more desirable approach to answering questions posed in a study (p. 274). The notion behind using a mixed-method approach is that with a combination of qualitative and quantitative data sources, it helps to fully understand perinatal mental health. However, Tashakkori and

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Newman (2010) assert that a mixed-method approach consists of a number of designs and hence in order to suitably answer the research questions, the sequence of the phases must be addressed.

This study aims at investigating the perceptions and experiences of perinatal mental health and its relationship with birth outcomes and quality of life among women in Accra. Studying perinatal mental health in the Ghanaian context demands an understanding of not merely the measurable trends that can be observed in purely statistical terms, and the testing of the strength of the association between key variables of interest, but also an understanding of the social, cultural, political and behavioural factors that shape perinatal mental health understanding and experience. A mixed methods approach was therefore deemed fit to use in this study. In furtherance of this, perinatal mental health; as it is perceived, as it exists and as it manifests in the Ghanaian setting, were explored.

The use of a mixed methods research also aimed to expand the topic under study. Expansion involves using multiple methods, throughout the various stages of the study in order to broaden the scope of findings. In this vein, surveys, as well as in-depth interviews, a joint couple interview and key informant interviews were adopted in this study. The use of these methods was meant to answer the research questions and to understand the research problem more completely (Creswell, 2002). The application of different methods allowed the study to answer different dimensions of the overarching research question, and so lead to a more in-depth, contextualized and therefore authentic comprehension of perinatal mental health problems in Accra.

Creswell (2009) identifies four main ways of combining methods; use of triangulation usually in concurrent research designs, the use of sequential designs mainly in explanatory or exploratory designs that require two phases of data collection and the use of embedded

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designs in a concurrent or sequential design (Creswell, 2009; Goffman, 1989). However, these approaches are fast being overtaken by more complex designs of more creative mixture of methods. According to Creswell (2009), the era of traditional approaches to mixed methods is fast drawing to an end as researchers adopt more creative approaches in response to complex research challenges.

Specifically, a type of sequential design; the iterative sequential design, a sequential study with more than two phases is followed in this research process (Teddlie & Tashakkori, 2009). The current study makes use of three phases, thus making it a three-phased iterative sequential mixed methods design. Iterative designs involve the use of both quantitative and qualitative methods, occurring in an evolving manner throughout the study. This implies that, decisions made at any particular stage are influenced by those at the preceding stages (Nastasi, Hitchcock & Brown, 2010).

By using an iterative sequential study design, there was a deliberative developmental logic to the mixed-methods design, whereby the findings from one research phase informed the next at a variety of levels. According to Greene (2008) strong development-led mixed-methods designs use different methods of equal status to examine the same or similar phenomena. For instance, in this study, the first qualitative phase helped select quantitative instruments and generate hypotheses for testing in the subsequent quantitative component, thereby leading to initiation and development in this research. The quantitative data in this study also helped explain findings from the qualitative data (complementarity) and also generated the qualitative sample for the last phase. Similarly, the last qualitative phase was also used to assess the validity of quantitative findings, thereby pointing to its complementary nature.

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Mixed method designs are used in order to obtain a complete view of the phenomenon (Bryman, 2006). In this research, completeness was ensured by conducting a follow-up qualitative enquiry of the significant issues arising from Study Two. Sequencing helped to explore and develop each phase of the research while working towards a more rounded evidence base. The strategy for the research design was QUAL ⇒ QUAN ⇒ qual adhering to Morse's (2003) mixed method notation system. The arrows show that each study has a direct influence on the next. Hence results obtained from the initial qualitative study makes room for the next quantitative, and then to the following qualitative method. The block letters show that emphasis is given to the first two studies. This is so because; Study Three (3) is a follow-up Study, which attempts to explain the findings of Study 2. Again, some of the sample of Study 3 was drawn from Study 2 (Creswell, Plano Clark, et al., 2003).

Other notable studies have also used similar designs in order to achieve completeness in their research. Wisawatapnimit (2009) used a three-phase sequential mixed methods design to develop a questionnaire among families who had a member suffering from cancer. Similarly, Tolman and Szalacha (1999) used an iterative sequential mixed design to explore how girls describe their experiences for sexual desire. Additionally, in order to comprehensively answer research questions that could not be answered with a one phase mono- method design Teddlie, Creemers, Kyriakides, Muijs and Yu (2006) developed a complex iterative sequential mixed design to develop a new protocol for data collection.

According to Tashakkori and Teddlie (2010) there is the need for mixed methods researchers to become methodological experts, in order to stay abreast of developments within mixed methods research, through a continuous process of upskilling. Saunders, Lewis and Thornhill (2012) consequently proposes that the most important judge of the appropriateness of the combination of research methodologies lie in its appropriateness in answering the research questions and satisfying research objectives, which is the sin qua non,

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of pragmatic research. A general overview of the entire research design is presented in Figure 3.1 below:

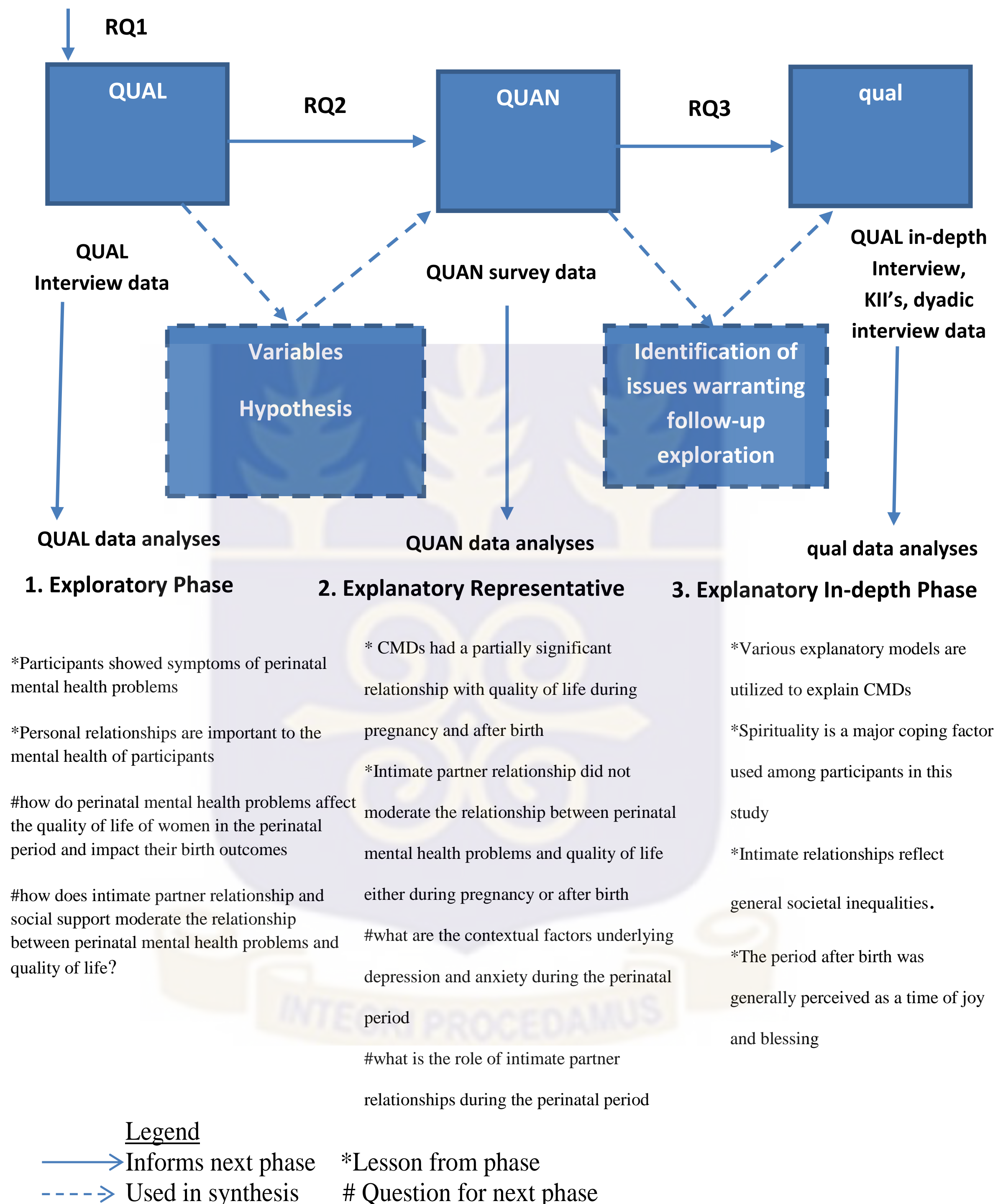

Figure 3.1: Sequential mixed methods design (adapted from, Tashakori and Teddlie, 2003)

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Overall this iterative sequential mixed method study addressed the following three mixed methods research questions:

1. What are women's experiences during the perinatal and what are their perceptions of perinatal mental health problems? What are the themes that evolve from the qualitative data that can help to select hypothesis and appropriate instruments to measure these issues?
2. What is the relationship between depression and anxiety, and issues such as social support, quality of intimate partner relationship and quality of life during pregnancy and after birth? What are the effects of anxiety and depression on birth outcomes?
3. What are the themes that evolve from the qualitative data that explain the etiology of depressive and anxiety symptoms among participants and explore ways in which participants cope with depression and anxiety. Also what are the dynamics and effect of intimate partner relationship among participants, and what pertains to perinatal mental health care in Accra.

3.4 Ethical considerations across all the three studies

Ethical approval for the research was granted by the Ethical and Protocol Review Committee (EPRC) of the College of Humanities, University of Ghana (see Appendix F).

3.4.1 Obtaining informed consent across studies

Participants were provided with an information sheet (see Appendix C), which spelt out the purpose of the research, what taking part would require of the individual, as well as the mechanisms put in place to ensure confidentiality. If participants were not literate, the contents of the information sheet were explained to them. All participants had to give informed consent (see Appendix C). Both verbal and written (signed) consent was received from each participant, after they had indicated that they were sufficiently knowledgeable of

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the nature and purpose of the research. Participants volunteered willingly and were not offered any inducements before participation. A signed copy of the consent form was given to the participant and a second copy kept by the researcher. It was also emphasized to participants that unwillingness to take part in the study was of no consequence to the level and quality of care they were receiving, or would receive at the maternity clinic. Participants were made aware of the fact that, no direct benefit could be promised to them from their involvement in the research. The option to withdraw from the study at any point in time was also reiterated to them.

Possible risks of harm anticipated during participation, such as exacerbation of distress levels, were also identified and discussed. This was addressed by providing comprehensive information beforehand, about what taking part would involve and the topics that would be covered, so that potential participants could make an informed decision. Both qualitative and quantitative data collection processes, were also conducted as sensitively as possible in order not to cause distress to the participant.

The issue of unequal power dynamics between a researcher and a participant in a research context was discussed between the researcher and research assistants. A strategy of, open responses to participants' questions, were put in place to minimize it. However, the difficulty in maintaining one's role as a researcher and separating this from the role of mental health professional was difficult at times when the participants required support. This was managed by providing participants with a directory of maternity and mental health support services, contacts, and websites for their personal reference.

Pregnancy and childbirth have deep cultural significance in Ghana, being surrounded with a lot of superstition and myth. Consequently, the cultural undertones of the topic were also discussed between the researcher and research assistants. The researcher and research

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assistants were tactful in eliciting information from participants, in order to create rapport, reduce guardedness and obtain accurate information from them. A debrief period followed each data collection, in with each participant was asked how they had found being interviewed. Consequently, a debrief sheet was given to them that detailed sources of mental health support and referral services available within Accra, should they require them following the interview.

For participants in the quantitative study, elevated symptomatology on screening instruments were communicated to participants in the spirit of non-maleficence. This information was communicated to them sensitively, by making them understand that the scores did not imply a diagnosis but rather, may be indicative of potential distress. Participants were consequently referred to the appropriate professional services. Participants were also debriefed at the conclusion of their participation, in order to answer any questions and clarify any misconceptions they may have.

In order to safeguard their health and wellbeing, research participants were asked from the initial stages, individual factors that might lead to risk of harm and proceeded to work to eliminate those risks together with participants. For instance, both qualitative and quantitative interviews were broken into short sessions rather than one long stretch to enable pregnant participants to get up and stretch in-between. Also, time was set aside, to enable women who had babies to breastfeed. Participants who took part in the qualitative study were also made aware that they could ask for the audio tape to be turned off at any time and that they could also withdraw entirely from the study if they chose to.

Confidentiality and its limitations were fully explained to the participants. Participants were assured that all identifying information will either be removed from their transcripts and filled questionnaires, or be anonymized. Participants in both qualitative studies were

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informed that quotes from their transcripts would be incorporated into the thesis and that thesis supervisors and other relevant stakeholders may look over the transcripts. However, they were assured that this would be done only after all other identifying information had been previously removed. Participants were also informed about the limits to confidentiality by making them aware, that in cases where there was a threat of harm, either to oneself, or to another, the researcher had a duty to report, and share that information with the relevant agencies.

Management of the data in both qualitative studies involved ensuring the integrity of data collected. In furtherance of this, the researcher and an assistant, after every one or two interviews, transcribed the interviews verbatim. This was to preserve a fresh and accurate memory of the interview session and to prevent loss of valuable participant information. After every two interviews, data was transferred from the audiotape equipment onto a laptop computer to free the audiotape equipment memory for more interview data.

Since the quantitative part of this research constituted a panel study, it was important to maintain all data and personal information collected from participants very carefully from the beginning of the study to its end. This involved good and safe management of questionnaires as well as strict and consistent anonymization. Also, due to the fact that the study extended across several months, some of the research assistants dropped out. However, a handbook of instructions and formulations on the conduct of the research was drawn up by the researcher to ensure, that it was possible to reconstruct what was done at earlier stages of the study even if team members changed.

3.4.2 Ensuring methodological rigour in the qualitative research

The principles of ensuring quality in an IPA study by Yardley (2000), has been recommended as being effective, according to Smith et al. (2009). Yardley’s four principles:

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sensitivity to context, commitment and rigour; transparency and coherence; and impact and importance have consequently shaped the discussion of quality in this research.

Sensitivity to Context: This implies demonstrating mindfulness of existing theory, literature and the study's sociocultural settings (Yardley, 1999). However, this awareness should also go hand in hand with findings from the analyses itself. I have demonstrated sensitivity to context by utilizing appropriate theoretical frameworks such as the biopsychosocial framework to guide this research. I have also included relevant literature as part of my work. Where the findings from analyses have gone contrary to what is presented in the theoretical frameworks and literature, I have been mindful to include such deviations and to discuss them appropriately. The use of negative case analyses yielded to a more refined interpretation of data. I have also demonstrated sensitivity to the sociocultural setting of my research by giving an overview of research locations utilized in this research. In furtherance of this, the background of the researcher has also been clearly stated. The use of reflexivity has also helped to articulate the role of the researcher in the study. I have been meticulous in the manner in which data has been collected in this research, and shown sensitivity to issues of power, particularly, within my context. I have consequently endeavoured to minimize the power dynamics, by making participants understand that they are the experts on their experience and enabling participants to confirm interpretations which have been made. I have also aimed to demonstrate sensitivity to the data through supporting interpretations of analysis with verbatim extracts.

Commitment and Rigour: According to Yardley (1999), commitment has to do with competence in using the appropriate method as well as in-depth engagement with the issue under study. I have honed my skills in IPA through reading, and from attending lectures on the topic. My supervisors; who are experts within the field of IPA, have also carried out audits of analyses and are in agreement with how themes have developed from the

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transcripts. Rigour, on the other hand, refers to the thoroughness of data collection and analyses (Yardley, 1999). Although this study had 21 participants, it did not take away from the case by case in-depth analysis that is required for IPA analyses. Interpretation of the data was also done on many levels and not just superficially. This helped to explore the issues that were most relevant for this study and helped add rigour to the research.

Transparency and Coherence: Smith et al. (2009) explains, that transparency refers to how clearly the stages of the research process are described in the write-up and that there should be coherence between the research that has been carried out, and the underlying theoretical assumptions of the approach being utilized. I have endeavoured to increase transparency, through the use of field notes to supplement text-based interviews with situation based observations. For example, notes were made of how participants in the in-depth interviews were visibly moved and saddened when describing antecedents of common mental health problems. This production of useful observational data contributed to a clarified and satiated picture of the impact of perinatal mental health problems within my context. The various methodological processes have all also been appropriately described as in the case of the sampling methods used and the procedure of the study. Attention has also been paid to coherence, by ensuring that there was a fit between the study's research questions and philosophical paradigms as well as the method and analyses utilized. For instance in Study One, the aim to explore the experiences of women during the perinatal period and understand their perspectives on perinatal mental health problems led to the adoption of a qualitative approach which subsequently led to IPA as the method and analytic approach used.

Impact and importance: According to Yardley (2000), this principle has to do with the importance of a study and its ability to add to theory and society in new and innovating ways. In this regard, the impact of this study, theoretically, practically and socio-culturally is discussed in the Conclusion chapter.

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3.5 Reflexivity - The Role of the Researcher

According to Holliday (2007) reflexivity is a tool that may be used to understand and report the effects of the researcher instead of seeking to eliminate them. Etherington (2004, p. 31) describes research reflexivity as "the capacity of the researcher to acknowledge how their own experiences and contexts (which might be fluid and changing) inform the process and outcomes of inquiry". Lietz, Langer and Furman (2006) posits that the awareness of self in the research process is able to limit the effects of self in the research process just as an awareness of one's own responses during the research process is essential in being able to move past this to understand the perspective of the participant. My role as a researcher is to interpret the stories of the participants, and my experiences. I have been in the field of mental health for the past 10 years having received both my undergraduate and graduate education within that field. All my internships and training have been largely based within the field of mental health and its applied settings. My most recent experience was teaching Human Development in a university setting.

Beyond that, I am a woman who has also been through pregnancy and childbirth. One striking experience that piqued my interest in the field of perinatal mental health was the exchange I had with a shopkeeper after I had gone to buy footwear because I had edema after childbirth. After explaining to the shopkeeper, the reason why I needed some flats. Her response was, "oh, having the baby is the most important thing, everything else pales into insignificance." As mundane as her comments were, they struck me as reflecting a deeper social construction of pregnancy and childbirth. A value for children, beyond a value for the ones who carry and nurse them, and a value for the ones who carry and nurse them, that derives from the value for children. I, therefore, set myself to explore what the experiences of women themselves were during the perinatal period and a deeper understanding of what women themselves perceived as distressing and how they made meaning of it. There was a

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constant awareness of how the researchers own experiences, values, attitudes and perceptions might influence the research process, from the formation of the research questions, through the data collection stage, to the ways in which the data were analysed and explained.

Positionality in qualitative research refers to those aspects of the researcher's identity, for example, gender, age, socio-economic status, education, or religion that could influence the qualitative research process. Among all of these positions, my background as a psychologist may have shaped the research design, in that, as much as I wanted to get more information about the issues, a greater part of me wanted to provide answers for other people as well, who may find themselves in similar situations in the future. That may have influenced my choice of research design and in particular the last qualitative phase, in wanting to get a more complete understanding of the issues, which could then form the basis for interventions.

In ensuring that my analyses and interpretation of the data were not unduly influenced by my experiences, I made use of intersubjective interpretations. By anchoring analyses of the data on the shared meanings of the participants, I ensured that my opinions did not form the basis of analyses. I also discussed emerging themes with my supervisors to enable them review findings. These discussions helped uncover taken for granted biases, perspectives and assumptions on the part of the researcher in the process of data collection and analysis (Lincoln & Guba, 2000). I also made use of member checks to review assumptions and interpretations made from the data. This was done by communicating summaries of interviews with participants during field work as well as ensuring they had access to interpretations and conclusions emerging from the data. This was done to ensure accuracy, and also to verify conclusions arrived at, by ensuring that it was a true reflection of the perspectives and experiences of the participants themselves.

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CHAPTER FOUR

STUDY ONE

4.1 Introduction

In this study, qualitative research was deemed the most appropriate method for exploring the research questions below.

4.2 Research Questions

This research aimed to answer the question: What are women's experiences during the perinatal period? Related to this main research question, the following areas of interest were explored:

1. What are women's experiences during pregnancy?
2. What mental health problems do pregnant women experience?
3. What coping mechanisms are employed by pregnant women to handle the experiences within that period?
4. What are pregnant women's experiences of the healthcare system?

4.3 Justification for the Research Paradigm and Methodology

Despite progress in the area of epidemiological, observational and intervention research on perinatal mental health, research that explores the subjective experience of distress is scarce (Bennett, Boon, Romans & Grootendorst, 2007; Darvill, Skirton & Farrand, 2010; Furber, Garrod, Maloney, Lovell & McGowan, 2009; Raymond, 2009). Moreover, such qualitative explorations offer an alternative model of interpreting mental health, particularly in view of the limitations of currently dominant mainstream approaches (Lafrance & McKenzie-Mohr, 2013; Ussher, 2003). Diagnostic labels DSM-5 APA (2013) and ICD-10 WHO (2014) have been argued to contradict the formulations informed by participants' lived experience. Arguably, lay knowledge has been evidenced as equally useful

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and practical both in the understanding of people's problems and experiences, and in informing assessment and successful treatment (Johnstone & Dallos, 2013). Again, it has been suggested that framing mental illness as a disorder may lead to over-diagnosis and over-prescription of medicalized treatment.

Such biomedical and individualistic approaches have been critiqued as pathologizing, by rooting the individual's distress solely within the woman herself rather than within a complex and rich interplay of the individual, interpersonal and sociocultural factors in which she subjectively and actively interprets and negotiates her own identity (Stoppard, 2014). Ignoring the role that one's context and psychology play in the development of illness, as well as relying solely on measurable and diagnostic criteria to assess and treat mental illness has stirred valid arguments concerning the limited understanding of multi-faceted issues such as common mental health problems particularly when positioned within specific gendered contexts (Browne, 2015).

For instance, the use of data collection methods which are usually structured, means that participants are limited in what they can comment on, leading to an incomplete picture. Taking cognizance of some of the quantitative research limitations, a qualitative methodology was deemed most appropriate for this study with the aim of allowing a more in-depth and detailed study of the experience of pregnancy and the perception of perinatal mental health problems, as it may not easily yield itself to quantitative analysis.

The choice of a qualitative methodology also intended to allow the emergence of unanticipated findings (Barker, Pistrang & Elliott, 2002). Although some research has been done in the field of mental health in Africa, not much has been done to explore the understandings and perceptions of perinatal mental health which according to literature affects a significant number of women in their reproductive years (Fisher et al., 2012). It becomes imperative therefore to take a critical look at the perinatal mental health of women

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within a Ghanaian urban context and also, to add to literature, especially from LMICs. While there is a general consensus among researchers, that perinatal mental distress exists universally and is disabling across cultures, specific cultural and context manifestations may influence how interventions need to be crafted for particular settings in order to achieve maximum effect (Hirschfeld, 2014).

Creswell (2006), identified five qualitative approaches to enquiry namely phenomenology, narrative research, case study, grounded theory and ethnography. Phenomenology is the most appropriate qualitative research for this study, as it aims to examine the lived experiences of different participants on a common phenomenon. Although phenomenology has a solid philosophical component, it also has enduring applications to research, with its focus on the lived experience, and its aim to capture the essence of experience rather than explaining or analyzing. According to Dahlberg (2006), an essence is, "a structure of essential meanings that explicates a phenomenon of interest. The essence or structure is what makes the phenomenon to be that very phenomenon" (p.11). The terms 'essence' and 'experience' were important in the development of my research questions and thus necessitated, that phenomenology be chosen as the most appropriate approach to my study; with an emphasis on staying true to participants experiences while bringing them together to tell a coherent story.

4.4 Interpretative Phenomenological Analysis

Interpretative Phenomenological Analysis (IPA) is a qualitative research approach which has the purpose of examining how people make meaning of major life experiences (Smith, Flowers & Larkin, 2009). It is influenced by concepts such as hermeneutics, phenomenology and ideography (Smith et al., 2009). Hermeneutics is the theory of interpretation; with interpretation conceptualized as grammatical, as well as psychological, since both the text itself and the wider context within which it was produced are interpreted.

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Moreover, the analyses of the researcher which may go beyond the literal statements of participants are also regarded in equal measure as the participant's statements (Smith et al., 2009). Ideography focuses on the particular; regarding the individual as the unit of analyses.

IPA adopts this tenet, in ensuring that their analyses are thorough and in-depth. For IPA, although generalized statements are made from individual cases, the individual is still at the heart of the issue, and the individual's voice; a central part of the description of the phenomenon (Smith et al., 2009). To sum it all up, phenomenology defines the aims of IPA, which are to uncover the essence of people's experience of a phenomenon. Hermeneutics is the tool of IPA describing how we engage with the data, and ideography defines the way that findings are brought to light and how themes emerges from the data. Three important tenets evidence IPA research; it must be idiographic with a thorough analysis of individual cases, it must be inductive with themes emerging from findings and it must be interrogative; in terms of being referenced with existing literature.

4.4.1 Study Design

A qualitative design was used in this study to gather data on the experiences of women during perinatal period.

4.4.2 Setting

The setting of the study was Ussher Polyclinic, Maamobi Polyclinic and Legon Hospital.

Maamobi is a migrant community made up predominately of Muslims; from within Ghana and other neighbouring countries such Togo, Mali, Guinea, Côte D"Ivoire, Burkina Faso and Nigeria (Earth Institute Millennium Cities Initiative, 2012). These groups also tend to speak a common language that is Hausa. Pockets of other ethnic groups also reside there, due to its central location and its proximity to the city center, and other key places of employment such as, Burma camp and Kotoka International airport. Maamobi is among the

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poorest communities in the Accra metropolis, with low income and high density characteristics (Eco-Management Consult, 2000). It was originally formed as a result of a decongestion exercise within the city of Accra in the 1970's, and it is characterized to a greater extent, by low literacy, high unemployment, poor housing and poor environmental health (Fobil & Atuguba, 2004).

Ussher town is an indigenous community made up mainly of the ethic group known as the Ga. Ussher town together with James Town, form what is known as old Accra or Ga Mashie, which is considered the oldest neighbourhood in Accra (Earth Institute Millennium Cities Initiative, 2011). This area now falls under the jurisdiction of the Ashiedu Keteke sub-metro district of the Accra Metropolitan Assembly, which has a population of 88,717 (GSS, 2003). It is a high density, low income area, which has witnessed its fair share of migration and urbanization as a result of its location within the heart of the business and financial district of Accra (Quartey-Papafio, 2006). The Ga's however are the majority of its 125,000 population (GSS, 2010). There are high levels of unemployment within the community, as a result of the shrinking fishing industry; which is the main occupation for males within the community. Women within the community are involved in fish monging, petty trading and food preparation. Due to high unemployment, males predominantly move to other parts of the city in search of jobs, and this has left the community with a high rate of female headed households and a predominance of women and children (Twum-Danso, 2008).

Legon, is a suburb of Accra and located within the Ayawaso sub district of the Accra metropolitan area. Legon is home to the main campus of the University of Ghana, Ghana's premier university and thus is residence to several academics and students. It is also adjacent to one of the most prestigious residential suburbs of Accra - East Legon and only about a 20 minute drive away from the Kotoka International Airport. It is thus generally regarded as a high class area (AMA, 2003).

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4.4.3 Sample Selection and Sample Size

The researcher employed purposive sampling as the most appropriate method by which participants were chosen. This was because participants were chosen on the basis of key characteristics; such as being 8-9 months into their pregnancy (Polit, Beck & Hungler, 2001). Twenty one participants took part in the study with their ages ranging from 19 to 40 years (see Table 2 below; pseudo names have been used to protect confidentiality). Data collection was stopped when saturation was reached.According to Smith et al. (2009) sample size is contextual and must be considered on a study-by-study basis. The sample size of 21 was therefore deemed to be appropriate, given the context that perinatal mental health is an emerging research area in Accra and therefore there were a lot of unexplored issues.

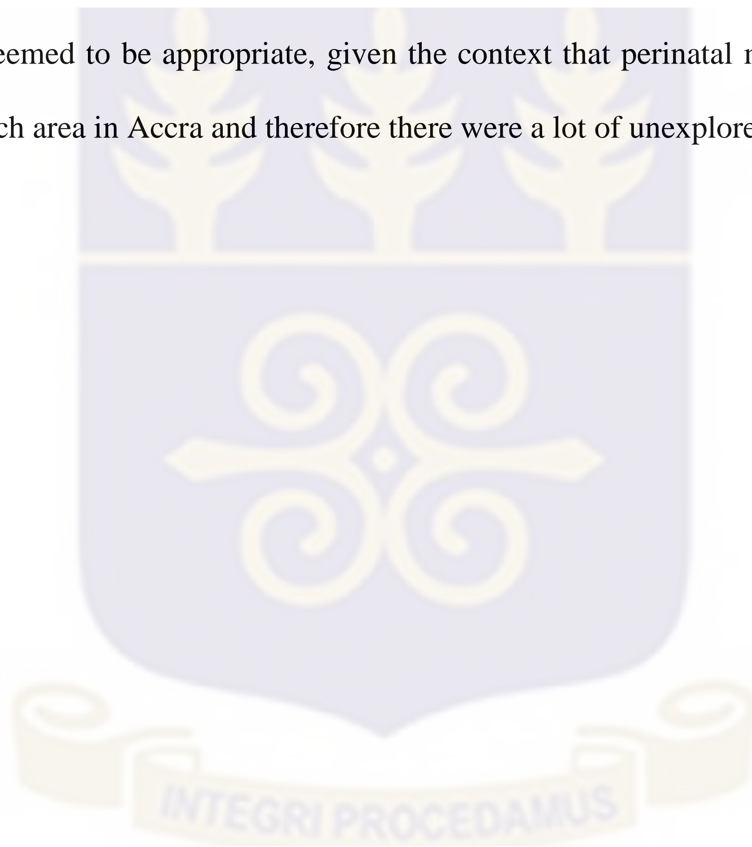

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Table 2. Participant Characteristics and Demographics

	1D	Age	No. of this pregnancy	Educational Level	Marital Status	Residence	Religion	Past birth experience
1	Amina	23	5	JSS	Single	Maamobi	Christian	4 previous abortions
2	Ama	36	3	Primary school	Married	Maamobi	Christian	Still birth
3	Eunice	25	1	JSS	Cohabiting	Nima	Christian	
4	Kande	25	2	JSS	Married	Maamobi	Moslem	
5	Akua	25	1	JSS	Cohabiting	Nima	Christian	
6	Abla	22	2	SSS	Single	Maamobi	Christian	
7	Adukwei	27	1	SSS	Single	Mamprobi	Christian	
8	Ayorkor	28	1	SSS	Married	James Town	Christian	
9	Anna	25	1	Nurse	Cohabiting	Korle Bu	Christian	
10	Kwakor	20	1	SSS	Cohabiting	Chorkor	Moslem	
11	Tsotsoo	34	3	SSS	Married	KorleBu	Christian	
12	Koshie	29	1	Vocational School	Married	Agege	Christian	

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13	Juan	35	2	Tertiary	Cohabiting	Paladium	Christian	
14	Ayele	31	2	SSS	Married	Bukom	Christian	
15	Ewoena m	19	1	JSS	Single	Madina	Christian	
16	Praise	25	1	JSS	Cohabiting	Legon	Christian	
17	Araba	31	1	SSS	Married	Haatso	Christian	
18	Priscilla	35	3	Tertiary	Married	Adjiringano	Christian	
19	Ohenewa a	36	6	Tertiary	Married	Madina	Christian	
20	Lamisi	22	2	SSS	Single	Staff Village	Christian	
21	Ojuola	39	3	tertiary	Married	Mempeasem	Christian	Previous still birth

Source: Field survey, 2016

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4.4.4 Inclusion and Exclusion Criteria

Participants were included if they were adults of not less than 18 years, eight to nine months pregnant and able to give informed consent. The number of months of pregnancy was used as an inclusion criterion because the course of depression varies throughout pregnancy with studies reporting a symptom peak during the first and third trimesters and improvement during the second trimester (Evans et al., 2001).

The exclusion criteria were; inability to give informed consent such as in the case of acute phase of schizophrenia or when the participant did not want to be part of the study. Other exclusion criteria was being under 18 years of age; although no persons within those categories were encountered by the researcher. Participants were also excluded if they were in their first or second trimester, had a serious medical condition or complication of pregnancy that prevented them or affected them negatively when they sat for the interview.

4.4.5 Data Collection Approach

A semi-structured interview schedule was developed which was relevant to the study aims (see Appendix B). This was informed by relevant literature, discussions with researcher's supervisors, and guidance on interview development sought through published guidelines (Smith & Osborn, 2003). The schedule was used flexibly, in order to allow probing of unanticipated areas that emerged. Examples of questions asked included: "How does being pregnant make you feel?", "Do pregnant women experience mental disorders?", "What do you think are some of the causes of mental disorders in pregnant women?" and "Have you experienced any mental health difficulties yourself?" Some of the participants were interviewed in the local language especially Twi. Terms such as "ateetee",worry, and "ahaahaa", feeling anxious were used to denote anxiety symptomatology while "awerɛhuɔ";

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sadness, "baha tɔ, feeling depressed, "abamu buɔ" discouragement was used in reference to depressive symptomatology.

4.4.6 Data Collection Procedure

A letter was taken to the various hospitals from the regional directorate of the Ghana health service. This letter was given, based on an introductory letter from the Department of Psychology, University of Ghana, Legon. At the hospitals, I sought permission from the senior-most person in charge of the maternity Out Patient Department (OPD), and introduced myself and the study I was undertaking. I then invited anybody who wanted to take part in the study, to a place I designated. It was not possible for the participants to move very far away from the main OPD since they were in queues awaiting their turn, for their appointment with the midwife. Consequently, I sat with the participants at the back of the waiting area; where the interviews were conducted. Most participants volunteered to come over for the interview.

A few individuals thought that there were some financial rewards to be gained from participating. However, it was explained to them at the onset, that was not the case and the purpose of the research reiterated to them. On making contact, would be participants were given the information sheet which was thoroughly explained to them, or given to them to read. Participants were then asked if they would like any further information or clarification, or if they were happy to continue with the consent form and then be interviewed. The interviews were conducted mainly in Twi; which is generally regarded as the most spoken local language in Ghana. The interview lasted between 45 and 90 minutes.

The researcher participated in further probing participants' responses and took down notes and observations. Where participant narratives were not clear, the researcher probed further for clarity and all participants willingly expressed their opinions on the issues raised. After the main interview session, there was a debriefing session that formed the conclusion of

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the interview relationship. In this session, participants shared how they felt about participating in the interviews. Many of them felt satisfied, noting, that it was their first time of talking in detail to someone else about their experiences. They were grateful for the opportunity the interviews gave them, and were eager to know about the outcome of the research and how they could benefit from it.

4.4.7 Field Notes

A notebook was used for taking key notes of participants' verbal and non-verbal responses and behaviours. The field notes guided the researcher to ask relevant questions and helped to validate the pieces of information that were collected, to make them credible and trustworthy. For instance, some participant's continued anticipation for monetary gains as a package included in the study, alerted the researcher to clarify that issue early in subsequent interviews, explaining that it did not involve monetary remuneration. However, adequate provision was made to give participants a snack during the interview. Some participants were hesitant at first, about giving out information about their gestational age. This guided the researcher to develop a good rapport with them at the very onset, in order to set their minds at ease, as to the intentions of the researcher. The researcher also had to do a bit of disclosure for some participants who were unwilling at first to talk freely. So, disclosing that the researcher had also gone through pregnancy and childbirth and disclosing the number of children I had, seemed to bring about a better rapport between the participant and the researcher and facilitate a better interview process. Some participants left in the middle of the interview when it was their turn to see the midwife. This development informed and helped revise subsequent interview scheduling with participants.

4.4.8 Data Analyses

The Interpretative Phenomenological Analyses (IPA) was used in analysing the data.

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Principally, there was individual in-depth analysis of each interview as proposed by IPA's idiographic leanings (Smith et al., 2009). The interview recordings were listened to repeatedly to ensure that what was transcribed was actually what the participant said, and also to immerse oneself in the data; recalling the setting and atmosphere in which the interview took place.

One margin was used to capture comments about the initial thoughts and reflections about the interview process, the use of language such as repetition and pauses, unique expressions and context, as well as capture first impression interpretative comments (Smith et al., 2009). Personal reflexivity comments were also captured here in terms of how the researcher's characteristics such as gender and age may have influenced the research process. The next stage entailed transforming notes into themes, by using a precise phrase that is conceptualized at a level of abstraction that is higher than that of a simple note, while making sure, that it was still grounded within the data collected from the participant. This was done across all transcripts.

The next stage involved looking for similarities across transcripts, grouping them together and using appropriate nomenclature to describe each cluster. Subsequently, emergent themes were clustered together through processes such as abstraction (putting similar themes together and renaming the cluster) subsumption (the process where the emergent theme assumes the status of a super-ordinate theme and draws other similar themes to itself), contextualization (where the narrative elements within the transcript are identified) polarization (where relationships that seem opposite to each other are identified) numeration (which implies the frequency with which a theme is encountered) and function (where themes are clustered, based on their function) (Smith et al., 2009). The final stage of the analysis was made up of a search for patterns across the cases. This was achieved by clustering major themes that shared similarities into master themes which then had their subthemes.

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4.5 Findings

4.5.1 Introduction

This section is based on an exploration of the experiences of the participants regarding pregnancy. Four main themes emerged (with sub-themes): *Pregnancy as a Mixed Bag (*sub themes: 'The Joys' and 'The Distress'), *Conceptions about Perinatal mental disorders (PMD's*) (sub-themes: Awareness of PMD's, Semantics of PMD's), *Experiencing Pregnancy* (sub-themes: Living Pregnant as Mother, Living Pregnant within Family, Living Pregnant within Health System) and Coping mechanisms of the pregnancy experience (sub-themes: faith as a tool for coping and engagement in productive activity as tool for coping). These themes and their constituent sub-themes are illustrated in the Table 3 below and are analyzed further in the next section.

Table 3: Master Themes and related sub-themes

Master Themes	Sub-themes
Pregnancy as a Mixed Bag	The 'Joys' The 'Distress'
Conceptions about PMD'S	Awareness of PMD'S Semantics of PMD'S
Experiencing Pregnancy	Living Pregnant as Mother Living Pregnant within Family Living Pregnant within Health
Coping mechanisms of the pregnancy experience	Faith as a tool for coping Engagement in productive activity as a tool for coping

4.5.2 Pregnancy as a Mixed Bag

This theme addresses the participant's conceptions about pregnancy. Generally, their conceptions indicated some positive and negative views. These are respectively captured under the two main sub-themes: *The 'Joys'* and *The 'Distress'*

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The 'Joys'

Some participants indicated that the positives of getting pregnant included joy, hope, bringing forth new life, fulfillment and good fortune. Participants expressed this feeling in various ways:

> "Oh am happy" reiterated Priscilla. By all means, it is important we all give birth. Being pregnant is important for every woman, so being pregnant makes me happy…someone gave birth for you to come to this world, so it;s important you also do so to bring someone (Priscilla, 35).

It can be gleaned from the above, that Priscilla's joy of getting pregnant appears to be driven by the opportunity to be part of a broader procreation scheme. She sees her capacity to bear a child as a responsibility within this generalized pro-life mentality.

Another dimension of the joy of being pregnant for some participants was that, it provided them opportunity to leave a sort of legacy within the genealogical setup of their families. This can be illustrated from the voice of Eunice:

> I am 25 years now so I have to give birth. If I give birth and I don't give birth again in future, at least people will be pointing to my child, when they say: 'there goes the child of the fool', so that my name will not be lost in the family or my area I live in (Eunice, 25).

Although Eunice's words convey a sense of the need for fulfillment and pride, it also conveys a sense of desperation at wanting to be a mother by all means, maybe as explicitly indicated in the narrative, she is seeking to be immortalized within the space of family relations. Such might be the extent of joy that she hopes pregnancy and birth will bring to her.

'The Distress'

However, these pregnant women also viewed the period of pregnancy in some negative forms. These forms included: physical distress and financial difficulties. For some

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participants, the physical distress from constant altered sleeping positions related to pregnancy was a challenge as explained by Kande:

> Yes I'm extremely happy, but the carrying of the pregnancy. If you are sleeping, this way, you can't, and that way, you can't, that is one annoying aspect of the pregnancy, turn here, turn there, that one alone is annoying. Hmmmm pregnancy is not easy (Kande, 25).

The distress is painted in the use of some jargons such as 'it's not easy' and 'if you go and come' (meaning if you survive pregnancy). For example, Kande indicated that:

> A friend of mine I am very close to, she has been sick severally. At the beginning of her pregnancy, if you go and see her you will even think you will not come and meet her again the next time…It's not easy oh. If you go and come then you have to wear white. [If you go through pregnancy successfully and deliver your baby, you have to wear white clothing as a sign of victory]. The lady I am talking about, I used to pity her whenever she visited me at my shop. She couldn't even drink water… That's what she had to deal with too…She will be vomiting and anything you cook for her, as soon as she eats, everything will come out (Kande, 25).

From the above, the physiological reactions such as vomiting, lack of appetite, morning sickness and so on accompanying pregnancy are viewed as distressful. She draws these views from experiencing a friend's pregnancy. The detailing of these reactions by Kande could be viewed as highlighting these negative experiences.

Some women also spoke of the financial difficulties they encountered as a significant part of their pregnancy experience. According to Kande, "See this thing we are doing, it is not small money issue oh! Go and do 50 cedis lab. Go and do this" (Kande, 25). In response to a statement rehashing the popular perception of pregnancy in Ghana as an honour, Abla interjected, "It's a money issue oh oo!" (Abla, 22).

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The "doing of pregnancy" according to Kande was a money intensive enterprise. She suggests that without the requisite financial resources and cash flow, one may be unable to "do" the business that is pregnancy. This implies a subtle monetization of pregnancy encouraged by societal level factors that act as barriers to the hustle free reproductive functions of women. It can be gleaned from the voices of participants, that the honoured place of a pregnant woman was fast losing its shine. Pregnancy was not only considered as bringing honour to a woman, but was also perceived as bringing money problems to a woman.

Economic factors influenced a woman's pregnancy at multiple levels; having significant implications for her mental health and wellbeing as well. According to Priscilla, "Even now I have done it 3 times….eiii! Did I say lab, scan rather; 3 times. One lab test cost 50 cedis, then scan 3 times is 100 cedis so if you don't get all this, it will worry you"(Priscilla, 35).

It can be gleaned from the voice of Priscilla, that the effects of being unable to pay for essential services during the perinatal period had adverse effects on their mental health by way of "worrying" and point to an interplay of factors; social, economic and physical in the constructions of the experience of motherhood.

4.5.3 Conceptions about PMD'S

This theme relates to participants' conceptualizations of perinatal mental disorders and their descriptions of how they understood and experienced it within a Ghanaian context. Two sub-themes emerged (Awareness of PMD'S and Semantics of PMD'S). They describe women's knowledge about the causes and symptoms of distress during pregnancy and the semantics they used in describing these.

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Awareness of PMD'S

Most participants seemed not to have any idea of what perinatal mental health disorders are. Some even sought further clarifications by asking questions from the researcher as illustrated by Amina who responds to a question asked about what she knows about perinatal mental disorder with, "I don't know about it" (Amina, 23). Lamisi also asks, "Like you are mad or what?" (Lamisi, 22) and Tsootsoo also said, "Is it like madness?" (Tsotsoo, 34). However, a few seemed to have some idea about PMD'S. Ayorkor says,

> What I know is that when they say someone has mental illness, everything she does you can see is not normal…I believe it is the condition that can make a woman exhibit certain lonely behaviours and sit quietly but I didn't know pregnancy too could also result in mental disorder (Ayorkor, 28).

Ayorkor's knowledge as she indicated is limited to the generalized understanding about mental disorder. What she lacked was that she had no idea this could affect women during pregnancy. But Priscilla's response appears more definite and reflects some knowledge about PMD'S: "Some women are always sad even after giving birth".

Some participants' view about PMD'S was expressed within a spiritual mode. Thus they viewed the signs and symptoms as diabolical manipulations. For instance, according to Araba:

> Once the man's family have been unable to prevent the marriage they will do anything to prevent you from having the baby so all those things (referring to the signs and symptoms of PMD's) are a result of that, and you as a woman must be very prayerful. They will even influence the man concerning you so that he doesn't care for you, it is all spiritual (Araba, 31).

From Araba's perspective, the reality of black magical manipulations against women could manifest as signs of PMD's. Physical as well as mental health problems that are experienced

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within the perinatal period are all regarded as effects of the work of evil forces that must be resisted. According to Twumasi (1975), disease etiology within the Ghanaian traditional system is conceptualized as having physical causes as well as spiritual causes. The diseases known to have spiritual causes include mental health problems. It is therefore not surprising that perinatal mental health problems were attributed to spiritual causes in this study.

Others viewed PMD'S as arising from the ill treatment from their intimate partners and a lack of social support. According to Priscilla, "For some, it is how their husbands will attend to them. Their husband's behaviour changes and that mostly leave the women worried" (Priscilla, 35).

Semantics of PMD's

Most participants did not describe their experiences using the word 'depression' or "anxiety" and did not view their experience as a condition on its own. The language and the words they used to describe their experiences were often termed '*thinking too much"*. For example Anna says, "the scan report showed I have a fibroid which was scary and needed to do surgery before giving birth. I think a lot and I had to stop work because of a lot of issues" (Anna, 25). In Amina's own words, "I talk to myself sometimes when am alone and have many things that worry me…I am always sad" (Amina, 23).

Juan explains in response to a question on her understanding of perinatal mental illness, "What I know is too much worrying" (Juan, 35). Adukwei reiterates, "If you are both not ready and it comes and the man also doesn't accept it, it is a problem so I was worried and always thinking" (Adukwei, 28).

Studies done in Ghana and elsewhere (Scorza et al., 2015) have pointed to this phrase of "thinking too much" to indicate ways in which some women conceptualized their understanding of perinatal mental health problems. This study also shows that majority of women used this phrase to capture their understandings of the condition.

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4.5.4 Experiencing Pregnancy

This theme addresses the experiences of the participants during the perinatal period. Three sub-themes examine these experiences: (1). Living Pregnant as Mother, (2). Living Pregnant within Family and (3). Living Pregnant within the Healthcare System.

Living Pregnant as Mother

Women had several personal experiences within this perinatal period that constituted their experience of living pregnant as mother. These experiences ranged from the experience of unplanned pregnancies, being unmarried and pregnant, a partner rejecting paternity, the experience of suicidal ideation, infanticidal ideation and the fear of having a preterm birth.

The experience of having an unplanned pregnancy was articulated by many participants. According to Ama:

> I got pregnant again after 7 months so I have been thinking about it…I was crying about it and wanted my husband to abort it for me…For me I was not happy because I was thinking there was no one at home to help and also since the baby had also not started school before I got pregnant again, I got worried…For me, I wouldn't have been too worried, but people will also gossip that the child is not grown enough, as if I wanted it that way (Ama, 25).

Ama's initial distress at not having well-spaced out children had to do with the limited support options that were available to her, as well as her perceptions of societal disapproval. It can also be gleaned from her narrative that she seemed to downplay her personal agency in the decision to have a baby by suggesting that she did not approve of the turn of events.

Other women also raised the issue of unplanned pregnancies within the dynamics of effective family planning measures. According to Ohenewaa:

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> Actually for me, this is my sixth born, but with this one, I am not happy because I didn't expect the pregnancy. I did family planning and it failed so it has created a lot of confusion. It is like a punishment. It is not easy. It is frustrating (Ohenewaa, 36).

Ohenewaa described unplanned pregnancies using very strong and gloomy language giving a sense of the negative emotions that were associated with it.

Similarly, some participants also expressed their experiences of being unmarried yet pregnant. According to Anna, "Initially, it wasn't that easy. I felt bad because both parents knew I was going to work but I rather ended up being pregnant" (Anna, 25).

For Anna, the disappointment of her parents was a source of worry for her since the traditional Ghanaian value systems tends to frown upon pregnancy outside of wedlock.

Unmarried participants who had their partners refusing to accept paternity experienced a double jeopardy. In Ghana, a partner coming forward to accept paternity for a child he has fathered is generally considered a sign of honour proving that the women has found a responsible man for herself. Therefore women in this study who did not have this "honour" expressed negative feelings about their experience. Praise says, "I am feeling very sad because the person I am pregnant with doesn't want to accept responsibility for it," (Praise, 25). Eunice also spoke on the agony she experienced because her partner wanted nothing to do with her, after she became pregnant. She said:

> I will be lying to my soul if I say am happy. The man I am staying with, it's like his life has become someway and after I got pregnant looks like he wants to forget me… If I deliver safely and have my baby in my arms, it is by the grace of God but if I give birth and I die too [Starts crying]" (Eunice, 25).

Both Praise and Eunice experienced hurt as a result of the actions of the fathers of their babies. Praise expressed her sadness and seemed to have accepted somewhat, that decision. For Eunice, the abandonment from her partner was painful enough to push her to her grave

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save a divine intervention. It seems she has lost her joie de vivre and her sense of self confidence and belief.

Similarly, the experience of mental health was a strong feature of the narratives of the women in the study. Although they did not mention the names of identifiable conditions such as depression and anxiety, symptoms of mental disorders were expressed by them. Participants described feeling irritable, becoming over-emotional and excessive crying as some of the negative emotions they experienced during the perinatal period. For instance, according to Eunice, “I am always sad. I will be lying to my soul if I say am happy” (Eunice, 25) this seems to suggest a protracted negative affect and a sense of despondency.

Loss of appetite also emerged as some mental health consequences within the experience of living pregnant as mother. According to Praise:

> It is not every day that I feel hungry. Sometimes I don’t even feel hungry. If I endure pain for a long time, I can’t eat”. [The pain she is referring to is the emotional hurt she feels when her partner is unfaithful to her]. She repeats the emotional pain she is going through by saying, “Sometimes I behave like that I don’t go out. I can be in the room by myself unless I am going to buy food. When he leaves me alone and he does something’s that pains me.” She goes on to say, “When I am alone I get sad but when people come close to me I become happy” (Praise, 25).

Praise seemed to be experiencing apathy and lose of interest in activities. However it is insightful that she did suggest a level of happiness when people came close to her.

Other symptoms of mental heath challenges were also experienced by participants. Amina, whose boyfriend has refused paternity said, “Sometimes when I am alone, all of a sudden, I start to panic.” (Amina, 23)

Other more extreme mental health difficulties that participants experienced included suicidal ideation and infanticidal ideation. According to Amina**,** “I contemplate causing harm

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to the baby but I will not do that. I sometimes feel I can hurt the man also by doing that." (Amina, 23).

By Amina's reasoning, the harm she causes the child will lead to harm to the baby's father as well. However the man in question had rejected paternity and suggested an abortion as the only condition on which he would reunite with Amina again (She has already done four abortions for him, and so this current pregnancy, although her fifth, was the first that she was carrying to term). Such a man therefore was very unlikely to be concerned of what became of the baby she was carrying and therefore threatening to harm the child as a means to cause pain to him was untenable. This line of thinking suggests the level of desperation that Amina was in and the level of her helplessness. It also brings to the fore the marginalized position of women within the society as well as the systemic and cultural failings that perpetrate inequalities and reinforce patriarchy and gender stereotypes.

Another extreme mental health experience of participants was suicidal ideation. According to Eunice:

> Hmmmmmm… Last 2 weeks I said to myself that I will commit suicide and noticed my mind was tuning to it. Fortunately, we had a revival in church and it was as if I had told the pastor what I was going through. After the revival, I never dreamt of such a thing again." (Eunice, 25).

Although just one person admitted to suicide ideation, the prevailing culture in Ghana which makes suicide a taboo subject makes it an important admission. Eunice's narrative also positions religion as an important intervening variable between mental health difficulties and their outcomes.

An effect of diminished mental wellbeing was described extensively by Amina:

> I am always sad and always thinking because now my mum doesn't have money and my dad doesn't have money, so if something were to happen to the

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pregnancy, we would now have to go and look for money to sort out the problem. Those are all part of the reasons why I think a lot." [She goes on to insinuate that her excessive amounts of thinking could have led her to have a preterm baby] "It came to a point where I was thinking so much that getting to my 7th month they took me to the 'Premature Room' and my mother was not happy at all" (Amina, 23).

From Amina's voice, adverse birth outcomes was positioned as a potential sequalea of the excessive amounts of thinking that she experienced.

Living Pregnant within Family

Living pregnant within the family was experienced by women at various levels. These levels were generally categorized into interrelationships between themselves and their partners, mothers, as well as mothers -in -law and other family members (e.g., aunties and siblings).

Women considered the quality of their relationship with intimate partners as important and contributing significantly towards their mental wellbeing. Some participants were satisfied with their partner's attitude towards them, expressing positive sentiments with the level of help and care they gave to them. For instance, according to Ayorkor, "Mostly people tell me I should be exercising but my man wants to do everything for me now. They advised me not to sit idle but my man doesn't understand so he does everything instead of me doing it." (Ayorkor, 28)

Ayorkor seems to have a helpful partner who is willing to lighten her load by taking on her house chores. It can be gleaned from her narration that she suggests that doing her house chores is exercise which she should be engaged in instead of idling about.

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Unlike Ayorkor, other women regarded their partners as sources of stress and grief. Their negative evaluations had to do with the emotional hurt they experienced, from perceived unfaithful and unsupportive partners. According to Praise:

> Yes, I have some things that worry me. If the man doesn't stay home and does not assist in anything… He should stay home and make me happy and stop chasing other women…I know his family members. The people that come to look for him are not family members they are his fiancées. Girls have been looking for him, not boys, girls! When they come and he goes out with them he comes back the next day and if you call him too he will not pick (Praise, 25).

Praise seemed powerless to prevent or stop the negative spiral of perceived infidelity on the part of her husband, which made her unhappy. From her concerns, she needed a partner who would stay at home and assist her.

Reaffirming the lack of assistance and support from partners and its ability to diminish the emotional health of women during the perinatal period, Ohenewaa said:

> I started with him from scratch. As for me, I don't want to hear anything about marriage again because I have sacrificed…Some men will support you but this one nothing…It is even better when you give birth and you don't have a husband. That one you know it is your responsibility, but here you have a father of six children… sometimes I ask myself how I thought this man was a good person (Ohenewaa, 36).

In Ohenewaa's estimation her sacrifice for her marriage ought to have earned her a happy home and not an unhappy one. She talks about her perception that "there are still some good men out there" and concludes that she has been unlucky in her choice of a partner. She even goes further to question her decision-making abilities. For her, being single was better than being with an irresponsible man.

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In their experience of living pregnant, mothers were mentioned as a source of support for some participants, mostly in terms of being sources of advice and counsel. According to Praise:

> Sometimes I go to my mum and she tells me that as someone who is pregnant, I should not be thinking so much, so I should forget it and be happy, so it doesn't affect the child. So sometimes I have no option but to be happy because I don't want my child to have any effect (Praise, 25).

Another participant, Kwakor, described her mother as her confidante. According to her:

I share my issues with my mother. She advises me to stop thinking about something's and I get consolation from that and stop thinking about certain things" (Kwakor, 20). Ohenewaa also credits her mother with being her anchor and stabilizing force. She said, "If it had not been encouragement from my mother I don't know what would happen" (Ohenewaa, 36).

It can be gleaned from these voices above, that mothers were considered as providing important relationships during the experience of living pregnant within family. For Praise, her mother's advice was to be cautious of the effect of worrying on her unborn baby. She put her baby foremost and put her feelings secondary. Kwakor also shows that even among adult children, mothers remained influential. For Ohenewaa, her mother singularly, had played a key role in her wellbeing and provided an anchor for her to hold it all together.

Other participants did not seem to place much value on the relationship they had with their mothers as they regarded them as being mere talkatives. Ayorkor says:

> Sometimes she comes here and sometimes I also go to her shop at Police Station to sit there. She talks too much so I don't like going there. She will talk too much and if you are not saying anything she will complain that you don't talk. My mother was initially not okay with my husband's ethnic group (Ayorkor, 28).

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According to others, their mother was not as supportive to them as other members of their families. This seems to be an inverse of the trend that characterized mothers as one of the main sources of support. Anna says, “I am okay, my family is supportive. It is only my mum who is a bit difficult’ (Anna, 25).

Another characteristic of living pregnant within family had to do with the dynamics of the relationship between participants and their mothers-in-law. Some praised their mothers-in-law as providing significant support during their pregnancies. Although it is a well-known cliché that mothers-in-law are difficult to get along with, Kande had a good relationship with her mother-in-law and she was a significant source of support to her. She said,

> Me even this one too, I want to go to my husband’s mother again. When I gave birth to this child, I didn’t do anything. Now it’s as if I am even giving birth for the first time…As for my mother-in-law ‘walayi!’ she is good. She will pamper you, she doesn’t have a problem. (Kande, 25)

Other participants however, expressed negative attitudes towards their mothers- in- law, not wanting to get them involved in the care of their babies. According to Lamisi:

> Sometimes my mother-in-law comes around but I don’t want her to come when I have my baby…With my first child, she couldn’t bath the baby, because she said she was afraid. Different people were bathing the child so for this one I don’t want that... This second one, I don’t want her to come because if you talk she will say you don’t respect, so this time around, I will let my mother come (Lamisi, 22).

It seemed as though Lamisi felt the presence of her mother-in-law would be restrictive to her, limiting her ability to be in control of her environment and the experience of caring for a new baby.

Apart from intimate partners, mothers and mother-in-laws, other members of the family were mentioned as valuable relationships within the family context. They helped by

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way of financial support as well as the friendships they provided to these women. According to Adukwei:

> Thankfully I don't go hungry. I am here with not just my aunty but her husband as well and their child. So at least I will get my 5 cedis at the end of the day. My aunt's husband gives me money (Adukwei, 27).

This financial help given by other members of the family affirms the communal way of life that dominates Ghanaian traditional society.

A cordial relationship between siblings in the family was also indicated by some women as characterizing their experience of living pregnant in the family. Ewoenam, a nineteen year old mother-to-be, points to the use of humour by her brothers as helpful: "My brothers make me happy"…my elder brother and my aunt's son. Immediately I get home they will start teasing me" (Ewoenam, 19).

Living pregnant within the health care system

Women in this study also spoke of their experiences of the health care system. Participants gave their experiences of not being treated respectfully by health professionals, not being given adequate information by health professionals and also characterized health professionals as being largely incompetent. According to Adukwei:

> The Last time I came, one of them didn't even give me a seat. She was just talking anyhow, but since I am not the one who took her to school, and if I was not pregnant to come here, she will not get me to treat me anyhow (Adukwei, 27).

From Adukwei's narrative, it seems as though nurses did not show basic courtesies to patients who they came into contact with. However, Adukwei, also seemed to have internalized these negative feelings, rather turning to self-blame. As well as blaming nurses, some participants were not happy with the treatment meted out to them by doctors.

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From Lamisis's experience, rather than celebrating her ability to be resilient during pregnancy, the doctor rather blamed her for having quietly endured long queues until it got to her turn. This might probably indicate a call for a more assertive behaviour on the part of patients in voicing out their concerns and feelings, and demanding their rights under the health care charter. She says:

> Last time I couldn't do anything because of my abdomen. I couldn't even walk, so I went to complain to the Doctor on Monday that my abdomen is hurting and he told me that its normal for pregnant women…He further went on to ask me how can I complain I am sick if I have been able to stand on my feet for all these hours before it got to my turn. If I wasn't sick why would I come here from my house? (Lamisi, 22).

Some women also indicated that health professionals did not give comprehensive and timely information on their conditions. Anna says:

> They [the lab technicians] told me my stomach looked like the pregnancy was 5 months, but it was 2 months and some weeks old and he said, what is in my womb is really worrying, he even frightened me. I have been thinking about all these things." Some of them they don't know anything about health. A part of your job is to educate me. You didn't tell me anything…. At least if I go for scan then you tell me, maybe this is like this, and this is like that. That is how it should be…He doesn't know that I have also completed Nursing Training, only that I have just not gotten a job to do yet." She continues, "I even wanted to ask them why they don't do that sometimes. I will be suffering and they will be saying that it is part of pregnancy (Anna, 25).

It seemed that Anna had a lot to complain about, as far as the care system she experienced was concerned. She pointed out the fact that the information she was given terrified her and was not relayed with due sensitivity to her condition. She also complained about the negative perceptions that health workers had of patients, treating them as if they were illiterates. This

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resulted in scanty information dissemination to them. Lamisi also spoke about the differences between a public and private health facility. According to her, the main difference was the level of information they provided their clients. She said:

> when they check, they don't tell you anything about how the child feels and all of that. The first one I went to a private hospital and the woman will check and tell you everything…The first one the nurse will come, check my tummy and tell me, my baby, does not look strong so I should eat well. Here they don't do that, they don't tell you anything. We don't get to know whether the baby in your stomach will come out alive or not. Sometimes I feel my baby is not active or something and you'll be thinking about it. Maybe that can leave you worrying. But if they tell you your child is fine, maybe it can also give you peace (Lamisi, 22).

For Lamisi, adequate information given to a woman during pregnancy had the potential to reduce distress and lead to better mental health outcomes.

Some participants also seemed to ask questions of the care guidelines and modalities upon which maternity service delivery in Accra is based. According to Ama, the health professionals were to blame for the loss of her previous baby, as she questioned the effectiveness of clinical care guidelines. She said:

> During my last pregnancy, when I got to my last month, they should have given me appointments every week, however, they gave me 2 weeks, so the day before the 2 weeks ended, I came. When I came they said they could not hear the baby's heartbeat, so I should go and do a scan and when I returned, they said this and that. I gave birth and I lost the child (Ama, 36).

It can be gathered from Ama's narrative that better monitoring, especially within the latter part of pregnancy is critical in helping to promptly detect problems that could compromise the health of the baby. Again, in spite of the many complaints about the quality of services

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within the public hospitals, women continue to access their services. Ojuola offered some insight to why women would keep going back to the same facilities and professionals that they claimed to be inefficient. She said:

> In a private hospital, you don't go and sit there for hours. Here by the time I will get home all my legs will be aching. If I was working and had my own money, I won't come here, but most people also tell me that the Government hospital is better than private (Ojuola, 39).

4.5.5 Coping mechanisms within the pregnancy experience

A variety of coping mechanisms were used by participants in helping them handle their experiences of pregnancy. These mechanisms included the use of faith as a tool for coping and als the engagement in productive activity.

Faith as a tool for coping

Faith was used by many participants to help them to cope with their experiences during the perinatal period. Describing how her faith has helped her cope with difficult times, Ohenewaa intimated:

> For instance, last two months when I came, they said my blood level had dropped to 7.5. They gave me one week to come back again...the doctor gave me medicine and prescribed a drug of 150 cedis (approx. USD 34) for me and how do I get that money? When I came again, it had risen to 10.6… So it's God who has been working. God works in mysterious ways (Ohenewaa, 36).

Ohenewaa seemed to suggest that a divine intervention had occurred in a largely physical condition. Although she may have had used other means, she credits the rise in her blood levels to the work of God.

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Prayers were another spiritual exercise utilised by participants that helped them cope with their experiences during pregnancy. According to Eunice, "What helps me a lot are prayers…the Methodist church teaches that if you have faith, you believe and your prayers will be answered." Another participant, Ohemaa, also talked about the fervency of prayer needed. She said, "For us we don't relax we pray a lot." This belief in prayer, from Eunice's estimation, seemed to be attached to one's faith. Thus prayer with faith produced answers. Ohemma's narrative also suggests that a certain quantum of prayer is necessary for it to be effective and that the individual needs to invest effort into prayer.

As regards faith as a coping mechanism, the church and the leaders within the church emerged as providing support for the women. According to Eunice, she coped through, "counselling and advice from church elders because left to her partner alone, I will have no hope". Another participant, Ohenewaa, also mentioned the church leadership as providing support. According to her, "The blood issue I was talking about I went to see our pastor and he prayed for me." (Ohenewaa, 36). The leaders of the church from Eunice's narrative were filling in the gaps that were left by her partner's unwillingness to provide the support she needed. She needed hope and the church provided that. Ohenewaa also from her narrative demonstrated the willingness of the clergy to be of help by listening and providing prayer support to their faithful.

Another expression of the faith of the women in this study in coping with the pregnancy experience was the use of sacramental objects such as anointing oil. According to Eunice, "Sometimes when we do revivals we send oil and they pray over it and I have one. When am going hawking, I smear my whole body with the oil; my body, hands and stomach" (Eunice, 25). The use of the anointing oil by Eunice may point to her underlying belief in the power of the supernatural. She smears her body with anointing oil, perhaps to ward off evil

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spirits against her and her unborn child. Kande who is a moslem, talked about how her faith as a Moslem helps her cope during pregnancy.

> In Islam they write or speak positive things on the baby. They write at a time the fetus has become a human being. Open mindedness and God's blessing is pronounced on them…we don't buy it; it is something that is read from the Quran… I don't know what it does, but anything that helps is ok, so I believe it.

From Kande's narrative, there seems to be a depth of need during the perinatal period that necessitates an all hands on deck approach. Everything was given consideration, at long as it helped some way in enabling the woman to have a safe pregnancy and delivery.

Engagement in a productive venture

Engaging one's self in a productive venture was seen by many participants as a protective factor against excessive thinking and worrying. Ayele points out, "*If you are working nothing worries you*" (Ayele, 31). Another participant Kande explained further that this protective effect was the case even against extreme mental health problems such as suicide, she said:

> I have never attempted suicide because he has set me up in business. I am a seamstress myself, and he has opened a shop for me. Because of the pregnancy he asked me to quit for a while but at first when I wake up, I am not idle at home. I go to my work, come back home, bath and sleep. I don't have a problem with anyone. It is when you have nothing doing, that you think of these things (Kande, 25).

It may be gleaned from Ayele's narrative that engagement in productive activity offered protective effects on the mental wellbeing of women. Kande in her narrative, seems to echo the idiom that the devil finds work for idle hands, and seems to suggest that "too much thinking" could also be as a result of idleness and having too much time on ones hands.

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Other women spoke about how engaging in productive ventures could be used to cope with their partners and reduce conflict within their homes. According to Tsotsoo, "When you work the man will not worry you. If you are working you are always happy and he merely assists so he can't do anything to hurt you" (Tsootso, 34).

Similarly, Priscilla spoke about how engaging in productive work could help women cope with their partners. She says:

> Oh it helps, she can support herself. Someone will say she is pregnant so this and that. But if you are working it helps. You go and you bring something home but you if say he alone should pay everything, it brings about a lot of worries (Prisilla, 35).

It can be deduced from the voices of Tsotsoo and Priscilla that engaging in productive ventures was a form of help to partners and prevented a lot of conflicts within the home. Particularly, it helped these women bring equal resources within the partnership that helped to reduce some of the domination and control that partners exercised.

Other participants also spoke about engagement in productive activities as being of help to the woman herself. According to Priscilla, "Yes that's what I am telling you, that you have to work, try to do something, to help yourself, so that you will not suffer" (Priscilla, 35). Another participant, Ama, also spoke of the woman helping herself. She says:

> I was working earlier on and used all my money to pay rent, so I wasn't seeing any good results in the business and I stopped. A friend of mine asked me to fry yam in front of her house to sell and that is going very well. So in this world if you try something and it doesn't work then you try another one…No matter what happens, by nightfall, you would have gotten your daily bread. You need to help yourself…Now whatever I have, I am happy and am grateful (Ama, 36).

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From Priscilla's point of view, doing something for one's self prevented suffering and hardship, and that doing something was better than doing nothing at all. Ama's admonition to women is for them to help themselves by being open minded and flexible in their thinking. For her, one needs to have a spirit of diligence and perseverance in order to make impact and be happy.

These themes and sub-themes capture the paradox of pregnancy. On one hand, it was portrayed in glowing terms; the epitome of joy and fulfillment, while on the other hand it was painted with grim colours; trapped with unavoidable aches and pains and financial encumbrances. The experiences of pregnancy also came to the fore as clouded by unplanned, unclaimed and unwanted pregnancies while also featuring relationships that provided support and resources that helped women go through some of the "thinking too much" that they experienced. In all participants narratives made for a rich tapestry of experience that provided good grounds to further study of these experiences from a larger sample.

4.6 Discussion of Study One

The aim of this section is to discuss the findings from Study One, in relation to the research questions, existing literature and theory.

4.6.1 Summary of findings

Study One, utilized an IPA approach to explore experiences during pregnancy and capture understandings of perinatal mental health from the perspective of women in Accra. Four themes emerged from the data: pregnancy as a mixed bag, conceptions about perinatal mental disorders (PMD's), experiencing pregnancy and coping mechanisms of the pregnancy experience. These findings illuminate the praxis of a number of ingrained issues upon which the experience of perinatal mental health stand; how culture defines pregnancy and the perinatal period and what is accepted and unaccepted as part of its process and expression.

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This chapter will, therefore, include a discussion regarding what it means to be an expectant mother in Accra coupled with an analysis of the gender constructions within it that act as the gatekeepers of the culture and tradition. Also, a discussion of the experiences of women in Accra during the perinatal period will be laid out, linking it up with the socioeconomic frameworks under which women are regarded and the cultural roles prescribed for them. As motherhood is naturally linked with psychological expressions and distress (be they sparse or frequent), the main themes work together to answer the research questions in focus. Some of the literature introduced in this section will be new as qualitative research such as IPA often generates new themes and insights (Smith, Flowers & Larkin, 2009).

4.7 Pregnancy as a Mixed Bag

Most participants in this study regarded pregnancy as a time of joy and celebration; the birth of a new life. It brought hope and also brought honour and an elevation of status to the mother. According to Osterguard (1992), the main role of a woman in traditional society is to ensure the perpetuation of the lineage. Fertility; highly prized in Ghanaian society confers power and prestige on a woman. It secures her place and bestows honour on her and her extended family. Across may ethnics groups in Ghana, there are elaborate practices to acknowledge this fact such as the practice among some ethnic groups in Ghana to slaughter a ram in honour of the woman who bears a tenth child (Radcliffe-Brown & Forde, 1950). According to Mbiti (1969) childbearing also has deep spiritual significance for African peoples. According to him, childbirth assures immortality as it ensures that there is a descendant who will bear the family name. Other more practical reasons have been given for the glorification of childbearing; including their economic value in terms of their ability to work, their usefulness in service, as in looking after aged parents and also the social value and prestige they bring their families; more children equal more prestige (Caldwell, 1969).

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Consequently, although it is recognized that the union of a man and a woman has other purposes including companionship and sexual gratification, these are considered secondary to the procreative function of any formalised male-female relationship. This is exemplified by practices such as the refunding to the woman's family the bride wealth that was paid for her if she fails in her effort to have a child (Lorimer, 1969). The knowledge that the sole persons with whom this function is achievable are men seems to confer on them, a great amount of power and authority. This basic biological power of men contributes in no small way to women's lifelong vulnerabilities both within their families and society as a whole.

In traditional society, men were the most favoured in terms of the authority structure with women taught to be content with a subordinate position largely through socialization. Women are taught to be obedient and faithful to their husbands whereas the men were allowed to marry more than one wife (Manu, 1984). Consequently, the females' ability to give birth has been touted by some economic anthropologists as her only route to economic emancipation in view of widespread male dominance (Oppong & Abu, 1987). In Ghana, the dictates of tradition take primacy over all other concerns when relationships between men and women were being discussed. Nukunya (1992) confirmed that those who weighed into decisions around reproduction within the Ghanaian family is not restrited only to members of the nuclear family, but also people outside of it and, probably even outside the family circle.

According to UNFPA (1997) for many women, their role in reproduction has been both over-valued and under-supported. Although pregnancy is highly valued, it is largely regarded as normal, a part of womanhood and everyone is expected to sail through it easily as a sign of a complete woman. However, the reality is different. Participants in this study bemoaned the physical distress attached to pregnancy. There was also a general sense that it constituted what normal pregnancy was, and that they had to just bear it. According to

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Greenwood and Stainton (2001), pregnancy discomfort seems to be an invisible and forgotten element of antenatal care. Greenwood (2001) continues to ask whether discomfort during pregnancy should be accepted, although it is largely expected. According to Ayanniyi, Sanya and Ogunlade (2016) most women regard discomfort such as back pain during pregnancy as normal and would therefore not seek treatment although such treatment is available. However according to Novaes et al. (2006) it is imperative that discomfort during pregnancy is treated and not ignored, as it impacts negatively on the quality of life of pregnant women. According to Bossuah (2017), fatigue during pregnancy may even be indicative of a mental health problem, as it has been shown to be associated with anxiety.

In Malawi, Stewart, Umar, Gleadow-Ware, Creed and Bristow (2014) found that although pregnancy was widely embraced as a positive event, with the child seen as a gift from God, pregnancy and the period of pregnancy also involved concerns about pregnancy outcomes as well. This may stem from the high mortality rates associated with pregnancy in Africa (Mwape et al., 2012). “Pakati”, which means “between” is the word for pregnancy in Malawi. It denotes a time when a woman is literally “between life and death”. This concept, also ascribed to, from studies in Ethiopia (Hanlon et al., 2010) symbolises the mixed bag of emotions that women during the perinatal period go through. Underneath the veneer of joy and fulfillment most expectant women have during the perinatal period, are thick layers of a host of other disquieting feelings. It seems that the high value for children does not automatically translate into a high value for the women who carry them; in terms of a value for their health, welfare and wellbeing. This shows itself in the lack of appreciation for women’s health issues as evidenced by systemic barriers and inadequate provision of infrastructure in maternal care. It seems as if women are being asked to produce the baby and forget about themselves in the process.

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4.8 Conceptions about Perinatal mental disorders

Supernatural causal factors have been cited in this current study, as well as other studies across Africa as causes of negative symptoms experienced during the perinatal period. Although the terms depression and anxiety are not used in describing perinatal mental health challenges, participants in this current study still attributed causes of the symptoms they faced to witchcraft and other supernatural sources. Similarly a study in Malawi showed that participants described being susceptible to harm through witchcraft activity (Chilimampunga & Thindwa, 2011). According to many traditional beliefs, a woman is more prone to witchcraft attack during pregnancy, as has been shown from studies from Kenya, Mozambique, Tanzania and Ethiopia (Chapman, 2004; Hanlon et al., 2010; Kaaya et al., 2010). After the uncertainties of pregnancy, the safe delivery of a healthy baby was received with gladness and relief, although worries related to poor intimate partner relationship and lack of social support usually resurfaced after the initial merrymaking. Other attributions of perinatal mental health problems include, lack of adequate social support as well as the stress of having an unsupportive partner. Findings which corroborate this assertion have been found in studies done in the Gambia and Tanzania (Kaaya et al., 2010; Sawyer et al., 2011).

Related to the discussion of the causes of antenatal distress is the way women have been conditioned to perceive their pregnancy and physical bodies; within a context of expertise and medical care. Prenatal care, screening, testing, and monitoring related to pregnancy have been framed within the discourse of risk (Lupton, 2012). Pregnant women are increasingly expected to take full responsibility for their mental and physical health in regard to the implications these bear on their babies (Bell, McNaughton, & Salmon, 2009; Ettorre, 2002). Overall, popular and expert opinion has focused intensely on advocating pregnant women's engagement in reproductive asceticism (Ettorre, 2002, p. 246), which means to stringently monitor and control their body for the sake of their fetuses. Lupton

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(2012) has argued that as a result of this focus on maternal responsibility for the sake of the unborn baby, pregnant women have become the centre for polemics in the public sphere and are now more than ever experiencing the critical public gaze upon themselves. This focus on full maternal responsibility, also phrased as maternal blame, increases women's tendency to internalize perinatal mental health challenges. It makes women strive harder to self-correct dysfunctions that they may recognize within themselves as contributing to the rise of these challenges and do their best to suppress their manifestations, invariably rather contributing to their increase.

It seems contrary to traditional norms and values for women to discuss pregnancy using negative terminology. After all, God created it and enjoins all women to be partakers of it. It is a blessing. It is normal, it is part of life. According to Gardner, Bunton, Edge, and Wittkowski (2014) studies within an African setting show that although symptoms indicating perinatal mental health were reported, it was not conceptualized as an identifiable condition such as depression. This finding has been corroborated with research from Ethiopia and Caribbeans in the UK (Edge & Rogers, 2005; Hanlon et al., 2009). According to a study by Gardner, Bunton, Edge, and Wittkowski (2014), perinatal mental illness as a condition did not exist in West Africa and perinatal distress that was experienced was conceived as being the results of stresses such as lack of practical and emotional social support and as well as dysfunctional relationships. These findings seem to propose, that the application of the Western biomedical model may be misplaced when considering perinatal mental health problems in African women, because this model does not consider the cultural influences which are critical to its holistic conceptualization.

The Implications of this may be that there is a lack of a uniform operationalized definition of antenatal mental health problems, making generalizations about outcomes unreliable. However, the use of "legitimised" DSM-criteria to define distress, may also affect

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women negatively, especially when pregnant women take such labels upon themselves thereby accepting all responsibility for their distress, and hence all responsibility for a potentially problematic birth. Additionally, framing antenatal distress as an illness limits women's mood management to either antidepressant use, or excruciating internal struggles between competing discourses of care options for either self or the baby. Tarrier, Sommerfield and Pilgrim (1999) argues against drawing a solid line between depression and normal functioning, particularly at times of great life changes. This can be relevant in the discussion of pregnancy, which inherently involves a major psychological and physiological adaptation, as was widely shared by the women in this study. For instance, when depression is viewed or diagnosed in the context of pregnancy, which naturally comprises somatic issues (changes in sleep and appetite patterns, fatigue, etc.) then there is the possibility of attributing these issues to depression in the absence of overtly negative mood.

An alternative and second position in defining distress is situated within social constructionism. Burr (1995) offers an explanation of distress within pluralist representations of the human experience, co-created by humans themselves. In its essence, distress is understood as entirely constructed through the use of language, and thus outside of the individual. However, the extreme interpretation of this framework has been critiqued for denying the "realness" of women's suffering and experience (Nightingale & Cromby, 1999). Stoppard (2000) offers a resolution to the definition debate by suggesting that all definitions should be viewed as partial, and local and situated rather than timeless and general. By suggesting that any knowledge of a phenomenon is provisional and deeply set in the circumstances of each individual woman, we manage to depathologize each woman's experience, and by implication reduce her distress. The language of science needs to accommodate a versatile discourse of conflicting rather than mutually exclusive definitions, and meanings equally grounded within lay knowledge.

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The influence of local settings is indicated in the fact that while some women may try to hide their distress with the belief that its expression equates to their failure in being "good women", others may be hindered from speaking out as a result of societal inhibitions that prevent women from speaking up about the issues that affect them (Nahas & Amasheh, 1999; Tsikata, 1997). The notion of "good woman" and the "good mother" have been conceptualized within a very narrow cultural message; prioritizing relationships while relinquishing their own needs for the sake of others (e.g., children, family, social context, work, etc.) in a selfless and self-sacrificing way (Lafrance & Stoppard, 2006; Nicolson, 1999). This cultural message has profound implications for the way women construct their understandings of what it means to mother "in a good way". The good mother myth consists of an unquestioned understanding of perfection: she never gets angry, she is entirely giving and nurturing and is by nature capable of knowing everything necessary to raise happy and well-adjusted children. Furthermore, the good mother is expected to have a quick, planned and timely conception, to have a positive, healthy and glowing pregnancy, unproblematic birth and a very easy adjustment to the maternal role and life with a new born baby (Chadwick & Foster, 2014; Staneva & Wittkowski, 2012).

In her influential work exploring mothering practices Hays (1996) identifies that mothers are increasingly expected to devote themselves exclusively to their children, regardless of their abilities. The level of this devotion determines the standards by which women measure themselves in relations to the 'good mother'. Such normative discourses have been argued to be highly oppressive to women (O'Reilly, 2004). They have been blamed for setting up unrealistic standards and opposing expectations on modern mothers, ultimately resulting in distress (Badinter, 2012). Feminist research has been amongst the first to propose a critical examination of the moralistic ways in which motherhood has been universally constructed (Rich, 1995).

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In this current study, the term "thinking too much" was used by participants to capture the distress they experience during their pregnancy. In their study on the expressions of perinatal mental disorder in rural Ghana, the term "thinking too much" was also observed (Scorza et al., 2015). Similarly, in Malawi, Stewart, Umar, Gleadow-Ware, Creed and Bristow (2014) found that participants used "nganisyo" (thinking too much) to characterize the emotional distress that they experienced during the perinatal period. This is akin to the Zimbabwean term "kufungisa", the Tanzanian term "kusononeka" and "Maladi ya Souci" used in the Democratic Republic of Congo (Bass et al., 2008; Kaaya et al., 2010; Patel et al., 1995). This, the authors argue indicate that the diagnostic concept was culturally sensitive (Rochat et al., 2011).

4.9 Experiencing pregnancy

Living Pregnant as Mother

The desire to have a child and thereby gain honour, respect and status within ones household, family and community, sometimes push women to conceive when they are not able to fully support themselves or the child. According to the GSS (2013), although the total fertility rate of women had declined from 3.99 children per woman in 2000 to 3.28 children per woman in 2010, the percentage of women aged over 35 without children was only 9.1% of all females of reproductive age. This desperate drive to have children increases women's disadvantage and deepens existing inequalities, because they then have to rely on the benevolence of men in order to take care of themselves and their child or children as the case may be. Figures by the GSS (2013) show that 37.9% of households in urban areas are headed by females and the poorest households are predominantly headed by females.

This lack of financial independence for women is a critical factor that has been linked to mental health problems among women of reproductive age, especially in urban areas such as Accra where the phenomenon of rural-urban migration has led to the erosion of traditional

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family support systems, hitherto available to women. The lack of financial independence is also linked to inadequate skill sets, low education and other resources which females as a result of societal inequalities have a reduced access to. A report by the GSS (2013), reported that almost all the core socioeconomic indicators of a good quality of life, such as access to basic human and legal rights and engagement in the workforce among others, confirm the lower status of women within Ghanaian society.

On the other hand, the inequalities regarding women's inability to contribute to decision making within their families make it difficult for women to access or fully utilize birth control without the consent of the man. According to Caldwell (1996), one of the agenda setting events in reproductive health rights; The International Conference on Population and Development, took place in Egypt in 1994. This conference served as a catalyst in popularizing issues of women's sexual and reproductive health issues and set the agenda with regards to the power dynamics between men and women, as regards sexual relationships and the right of women to have a say in what happened in, and to their bodies. Men in Africa tend to have more power in determining issues such as contraception use and number of children than women (Fapouhunda & Rutenberg, 1999). Furthermore, the extended family are also invested in the decision to have a large number of children. According to Bawah, Akweongo, Simons and Philips (1999), the extended family is a strong interest group and can pressure the couple into having more children, even if the couple themselves are unwilling to. This lack of power in making reproductive decisions leads to unplanned for pregnancies and may increase women's mental health problems.

Findings from a study by Lamba (2015) showed that participants regarded unplanned pregnancies as unwanted burdens in their bodies which caused them significant psychological distress both during pregnancy and after childbirth. These same findings also showed that if pregnancies occurred shortly after another birth, participants were not emotionally prepared,

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as they were still adjusting to motherhood. According to Templeton et al. (2003) unplanned for pregnancies contributes significantly to the burden of mental health problems in Asian women based in the UK. According to Mohammad, Gamble and Creedy (2011) and Iranfar et al. (2005) unwanted pregnancies do have negative effects on the mental health of women. Lack of the right to determine when to have a baby or not, contributes to unplanned and unwanted pregnancies even for married women, as was evidenced from the voices of participants in this current study, leading them to self-neglect and feelings of depression or anxiety. The situation is even worse for unmarried women, who have the double agony of being unmarried and having a child out of wedlock, especially in a Ghanaian setting. The ridicule and the negative attitudes and statements from family and friends add to other already existing socio-economic and physical pressures, to make the perinatal period a very difficult one to manage, with adverse effects on the wellbeing of both mother and child.

According to Campion, Bhugra, Bailey and Marmot (2013) and Patel and Kleinman (2003), the highest prevalence of common mental illnesses such as depression and anxiety and their adverse consequences are experienced within resource poor settings. Children of poor mothers are more susceptible to deprivation and disadvantage, and even before birth, bear the brunt of poor maternal nutrition, negative effects of stress exposure and the burden of heavy physical labour. The likely resultant: low birth weight and other adverse birth outcomes (WHO, 2013). According to Fisher et al. (2012), the scale of the problem of perinatal mental health problems in developing countries is substantial and multifaceted.

Similarly, the honour given to childbirth, pressures some women to want to bear children even if they are not married. This is done with the hope that they can tie the man to themselves or “force” the man to marry them by virtue of having a baby with the man. Any such union outside the formal bounds of marriage is deemed deviant by the fact that, it is seen to lack the essential element of approval from both families as required by societal norms.

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This lack of approval is touted as a reason for its perceived inherent instability. Also, such non-formalised unions lack the legal support that is protective (Aryee, 1997). These increasingly non-binding relationships are largely a by-product of the processes of migration and urbanization, which invariably detach and absolve the individual from traditional family controls and restrictions. According to a GSS (2013) report on women and men in Ghana, a consensual union may be a stage in the marriage contracting process; especially in circumstances where the man may want time to gather enough resources to satisfy marriage contract requirements or in other circumstances, many want to assure himself of a woman's fecundity. A woman in such a consensual union keeps hoping that the man will eventually perform the marriage rites. For some men, however, it is a favourable arrangement which allows them to enjoy a number of perks attached to marriage without its attendant responsibilities. In some traditions, the man is expected to perform the rites of marriage for a woman who gets pregnant. However, with the ever-changing dynamics of the society; urbanization and increasing socioeconomic problems, these seem no longer binding on men. Yet, women are still disproportionately the target of the stigma of having a child out of wedlock, many of whom are described with denigrating terms such as "born one" "cheap" and "old layer" among others.

According to the GHS (2010), the proportion of women who have never married have dramatically increased over the last fifty years from 8.5% in 1960 to 29.5 % in 2010, about three hundred percentage increase. Increased migration and urbanization, and increased educational attainment may partly account for this trend; however, variations in nuptiality also constitute an important factor.

These seemingly social dynamics have implications for the mental health of women within their reproductive years. When a woman lacks security, and is not considered an equal partner, it tends to undermine her sense of value and worth and affects her mental health and

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wellbeing. As a result, she may behave in ways that negatively affect her health, as well as the health of her baby. Risky behaviours such as smoking, taking drugs and non-adherence to good nutritional practices could all affect the health of both mother and baby and compromise them in significant ways leading to consequences such as significant levels of anxiety, low birth weight, prematurity and even stillbirth (Dunkel Schetter & Lobel 2012;Weaver, Campbell, Mermelstein, & Wakschlag, 2008).

Adverse birth outcomes are of serious concern globally, for instance, it has been estimated that fifteen million preterm babies are born globally each year with complications due to preterm birth, accounting for 14% mortality rate of children under 5 years (WHO, 2012). The preceding paragraphs illustrate the link between social and psychological factors and refute notions that perinatal mental health problems are solely illness classifications. Indeed, they are multifaceted problems that need to be tackled using eclectic approaches.

Living pregnant within family

The findings of the current study revealed that participants valued the relationship with their intimate partners as well as with their mothers. These key relationships served as both protective and risk factors depending on whether the support given was beneficial to the participants needs or not. According to an Irish study, support from a woman's own mother improved the woman's confidence in their ability to be good mothers and also has a positive impact on the mental wellbeing of first time mothers (Leahy-Warren, McCarthy & Corcoran, 2012). The quality of intimate partner relationship has been shown to be significant to the mental health of women in the perinatal period. A study by Lamba (2015) indicated that by both his support and lack of it, the partner of a woman during the perinatal period could have an impact on her depressive state. However, a relationship that was characterized by difficulties was a risk factor and reduced the coping benefits of intimacy.

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Living Pregnant within the health system

The lack of sanctions for health workers who forsake their duty of care, place women in the perinatal period in a difficult situation; surrounded by no structured care protocols and by staff who could not be bothered about the consequences of their actions. Health professionals, unwillingness to answer participants request for information could also lead to serious lapses in the pregnant woman's ability to adequately care for herself and her baby. A study by Tuncalp, Hindin, Adu-Bonsaffoh, and Adanu (2012) exploring the perceptions of quality of care in Ghana found out that women experiencing maternal morbidity valued access to good information, good attitude and good communication, as influencing mental wellbeing. According to Weeks, Lavender, Nazziwa, and Mirembe (2005) there is evidence from across perinatal settings in Africa that highlight the negative attitude of nurses towards clients. Good relationship between patients and health professions is deemed to increase both quality of care and also future health care seeking behaviours of women and their families, and empowers women by providing the vital information they need to decrease anxiety about their delivery (D'Ambruoso, Abbey, & Hussein, 2005).

The perceptions of the health care system in this current study, was mostly negative, with participants complaining about poor treatment and rising cost. This is against the backdrop of maternal care being free. The policy of free maternal health care, which was introduced in Ghana in 2008, was meant to facilitate access to maternal health care services, including antenatal, intrapartum and postnatal care within healthcare facilities, up till nine months after birth. However, according to recent reports, this policy does not seem to be functional in some hospitals ("Free maternal healthcare policy not working", 2016). These findings were corroborated by participants in this current study who lamented the high charges associated with maternal care in Accra.

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In addition to high costs of healthcare, participants also complained about how they were treated at the hospital, putting and midwives in the line of fire. Most participants reported that nurses were rude and did not provide enough information. Reiss et al. (2012) in a survey of the treatment of women in labour wards brings to the fore, several abuses including physical and psychological. Brighton et al. (2013) also report that many women express negative views about health care facilities in sub-Saharan Africa, because of previous unpleasant experiences with health professionals which tended to have an influence on decisions in their pathways to care. Similarly, a study on parturient women in Accra by Floyd, Coulter, Asamoah and Agyare-Asante (2014), found that participants rated both clinical competency and emotional support as components of quality care. These findings are corroborated by similar findings by Doyle et al. (2013) and Renfrew et al. (2014). Specific aspects of quality care identified including kindness, respect and being proactive in giving information. According to them, this led to improvement in their total experience during labour and delivery as also found in research by Hodnett et al. (2012). However,according to Van Teijlingen (2003), women are more likely to express satisfaction with services and are reluctant to criticize their care-givers, when they have just given birth.

Participants experienced negative feelings when they were screamed at, not given adequate information or left unattended to, confirming findings from other studies (Brighton et al., 2013; Moyer et al., 2013; Reiss et al., 2012). Evidence exists for the important impact and influence that midwifery can have on the quality of care services for women and children worldwide, for improved outcomes and the efficient use of resources. Further, women make the choice of where to deliver on the basis of their perceptions of how they will be treated in the facilities available to them (Freedman & Kruk, 2014).

As a researcher, I found myself in the situation of having to play the role of an advocate for a patient who had been given a request form to go to the laboratory. According

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to her, she had misplaced the form and wanted to go through her folder to ensure she had not placed it there inadvertently. She was filled with trepidation because according to her, the nurse was going to be offended and scold her. She, therefore, begged me to plead with the nurse on her behalf, so that she could look through her folder which by then was with the nurse. This was a terrible experience for me, since I did not think, an issue like this should warrant the fear I saw in a pregnant woman's eyes. She was clearly distressed and it was evident that together with the stress of carrying the pregnancy, the stresses she may be confronting at home and in her work, she did not need an unsympathetic and rude nurse. This presents a strong case for the improvement of healthcare services across board. Failure in this regard may have negative consequences for both mother and child.

4.10 Coping mechanisms of the pregnancy experience

Although the perinatal period is generally a period of joy and new hope, its concomitant demands including financial, occupational and physiological challenges as well as the social context within which it takes place may bring in its wake high levels of stress and apprehension (Ritter, Hobfoll, Lavin, Cameron & Hulsizer, 2000). Expectant mothers may also experience anxiety relating to the health of their unborn babies, fear of labour and also their impending parenting responsibilities (Label, Hamilton & Cannella, 2008). According to Lazarus and Folkman (1984), stress may be defined as demands that exceed the resources of the individual to cope. Levels of stress vary from one person to the other. However, stress does not necessarily lead to mental health problems in all women, therefore the coping mechanisms used by pregnant women may provide valuable insight into disparities in perinatal mental health disorder symptomatology and outcomes among women (Dunkel Schetter, 2011; Dunkel Schetter & Dolbier, 2011).

Lazarus and Folkman (1986) characterize coping as the person's ability to alternate their cognitive and behavioural efforts to adapt to and manage particular stressors or

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exactions, be they external and/or internal that are deemed taxing to, or stretching the person's resources to the limits. This model implies that no one coping method or pattern is suited to handle all stressors. Rather, people must flexibly adapt both their thinking and their actions to suit the particular stressor that they are facing. This definition also emphasizes the importance of availability of resources in choosing to use a particular coping method. Coping methods are drawn from resources that vary from person to person, such as social support, personality traits, habits, resiliency, and participating in enjoyable activities.

In this study participants reported the use of faith as a coping resource. They expressed belief and trust in a higher power and this sustained them through the challenges that they experienced. This is in tandem with King (1989), who concluded, "Motherhood is a rich and widely ramified concept linked to biological birth, to culturally learned patterns of mothering and to expressions of spiritual insights of human experience" (p. 79). Ghana is a highly religious country and it is therefore not surprising that faith was cited as a key component of coping. Moreira-Almeida and Koenig (2006) have emphasized that black and minority ethnic groups usually use religion in order to cope with distress. Reed (1978) proposes a theory of dependence in explaining why individuals get involved in religion. According to him, people attend church and engage in religious rituals because they have a need to fulfil their dependency needs. According to Gilligan (1982), while men are socialized to be independent, women are socialized to be dependent, and this may explain their reliance on the church and in terms of Christianity, Jesus, who is considered as saviour, and Lord. Thus, while religion fulfils women's desire to hold relationships in high esteem it confronts men's concepts of independence. Similarly, the theory of status posits that most women who find themselves in low status in the society and excluded tend to be more religious (Campbell & Curtis, 1994). Utsey, Hook, Fischer and Belvet (2008) propose that aspects of culture such

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as family ties, religion and values interact with other situational and environmental factors to produce positive outcomes for African and African Americans.

Participants in this study also stated that engagement in productive activities was a coping mechanism for them. Low socioeconomic status has been found in the literature to be a risk factor for perinatal mental health difficulties (Fisher et al., 2004). Thus, work, being employed as a resource for coping may be a means of coping that gives women power in confronting the dominance of men in relationships (Carver, 1997). Literature from Ghana has shown that although women face inequalities as far as relationships are concerned, they are able to breach the power gap, if they brought significant resources to the marital relationship. The higher the spouse’s input in terms of finances, the greater their role or lead in household decision-making. Therefore, women who earn an income and can contribute to household finances have more decision-making influence in the household (Oppong, 2005; Songsore & McGranahan, 2003). Studies carried out in Asia also show that an improvement in a woman's economic status may produce changes in the husband’s attitude which may be either more respect for the woman, or in other cases, generate more violence towards the woman (Goetz & Gupta, 1996; Mayoux, 2002). Anxiety and depression in the antenatal period has also been found to be higher among women who are unemployed (Lydsdottir et al., 2014; Rubertsson et al., 2014) although other studies have found no such associations (Agostini et al., 2015; Husain et al., 2011).

Positive mental health is central to wellbeing and is influenced by several factors operating at different stages of life. Social inequalities have been shown to be a great influence in predisposing women to perinatal mental health problems. In many countries around the world, a change of priority is needed towards prevention of perinatal mental health problems by addressing the social determinants of health, as well as improving diagnosis and management of existing conditions. Action is urgently required as research has

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shown that many of the causes and triggers of common mental health problems lie in the conditions of daily life; social, economic, and political.

Findings from this study formed the basis for the subsequent study which was quantitative in nature and sought to test some of the themes on a larger population. It also sought to test out hypothesis that had arisen from this qualitative study; such as the impact of perinatal mental ill health on birth outcomes and the relationship between intimate partner relationship and social support on perinatal mental ill health. It was imperative for this first qualitative stage to be carried out since it unearthed issues that women cared about, from their own point of view and discourses, which then informed subsequent phases of the work. This study is therefore very much participant centered and relevant to the needs and concerns of perinatal women in Accra. Table 4 below shows the connection between Study One and Study Two.

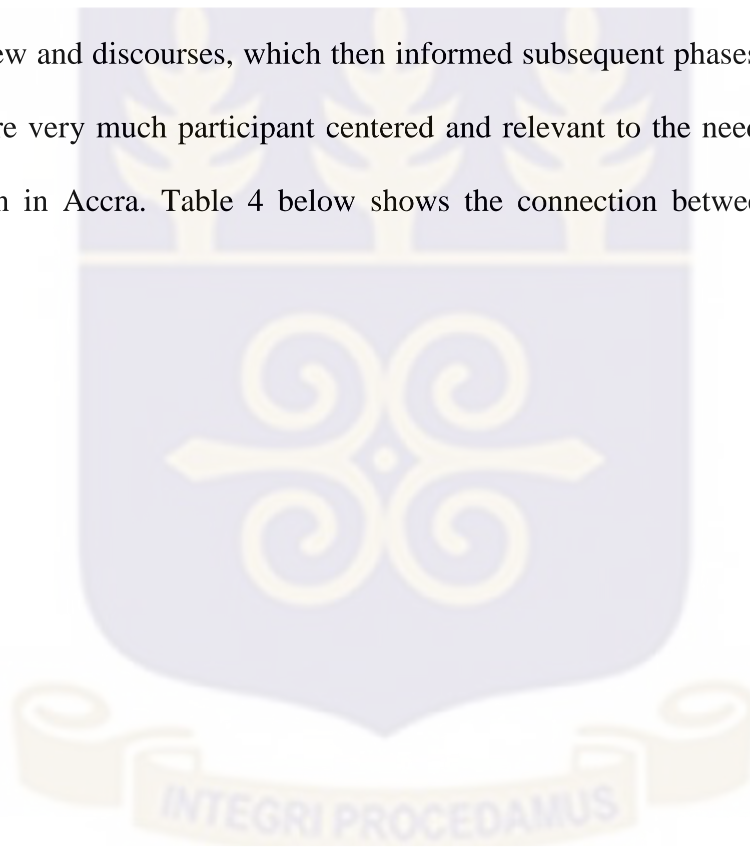

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Table 4: Representation of the connection between Study One and Study Two

Theme	**It's input into Study Two**
Conceptions of perinatal mental disorders	**(Choice of instruments, predictor variables)** Even though participants were not aware of perinatal mental disorders as a separate condition in itself, they expressed symptoms that were recognized as fitting the profile of formal depressive and anxiety disease symptomatology. Could the symptoms expressed by participants point to a formal disorder and be identified by standardized screening tools? Study Two examined this question.
Experiencing Pregnancy (Living Pregnant as mother)	**Hypothesis (dependent variable)** The risk of adverse birth outcome emerged as an experience of living pregnant as mother. It was important to study it further as it has such wide and serious implications on mortality and morbidity both in women and children.
Experiencing Pregnancy (Living pregnant as mother)	**Hypothesis (dependent variable)** It was realized that experiences of perinatal mental health problems that emerged did not make much reference to effects on the woman in terms of her quality of life. These experiences did not also point to any effects, mental health difficulties had on the society. Quality of life was therefore introduced in the second study in order to show the effects of mental health problems, not only on the woman herself, but on the society as a whole. Since low quality of life has negative cost implications for society in term of development and productivity, it was anticipated that if the hypotheses were supported, it would provide evidence to dispel generally held misconceptions about perinatal mental health problems, being as a problem for the woman only, but, would recast it as a problem for the society as a whole.

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Experiencing Pregnancy (Living pregnant within family)	**Hypothesis (moderating variables)** Based on findings that emerged from the sub theme, "living pregnant within family", Study Two sought to measure the moderating effects of "social support" and "quality of intimate partner relationship" on quality of life within this sample.

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CHAPTER FIVE

STUDY TWO

5.1 Introduction

The first qualitative study helped to identify gaps in perinatal mental literature as far as the Ghanaian context is concerned, as well as inform the researcher of which areas needed further investigation. Some of the themes and other key issues that emerged out of the qualitative study served as a basis for formulating hypotheses for this study. The qualitative study also helped to clarify, which instruments would best suit the topic to be researched and which relationships would be amenable to quantitative research. This section discusses the general methodological orientation underlying the current study.

Quantitative research is described as the collection of data which is quantified and subjected to statistical manipulation in order to support or refute alternate knowledge claims (Creswell, 2014). This quantitative study; in two separate waves (during pregnancy and after birth) tested the relationship between the antecedents; depression and anxiety characterized as common mental disorders (CMD's) and quality of life. Also tested were the moderating effects of social support and intimate partner relationship on the relationship between CMD's and quality of life. The extent to which CMD's predicted adverse birth outcomes was also investigated. The methodological approach adopted was a two-wave complete panel design (Taris, 2000). A panel design is characterized by the measurement of two or more variables and relies on the same set of participants across more than one wave of data collection (Menard, 2002). It is deemed complete, because both independent and dependent variables are measured at both time points (i.e. Wave 1 and Wave 2).

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5.2 Justification for choice of design

The panel design was chosen for the current study because it has been shown to be better than cross-sectional designs in its ability to actualize a deeper understanding of causal relationships among variables at different points in time; for instance, during pregnancy and after birth, as it pertained to this current study (De Lange et al., 2003). Panel designs also facilitate the conduct of both cross-sectional analysis for each wave and also longitudinal analysis across waves. Similarly, panel designs are useful in examining differing kinds of causality such as reverse relationships, reciprocal causal relationships as well as normal causal relationships (Zapf et al., 1996). The choice was also based on the ability of the panel design to investigate several variables over a period of time for a sizeable number of participants enabling individual level assessment of attitudinal and behavioural changes over time (Taris, 2000). The panel design has a few drawbacks such as, panel conditioning and also panel attrition; leading to panel bias and costs, in terms of money and time.

5.3 Hypotheses

Hypothesis 1a: Common mental disorders (CMD's) during pregnancy will have a statistically significant inverse relationship with quality of life during pregnancy.

Hypothesis 1b: CMD's after birth will be negatively correlated to quality of life after birth.

Hypothesis 2a: During pregnancy, Intimate partner relationship will have a significant moderating effect between CMD's and quality of life.

Hypothesis 2b: After birth, Intimate partner relationship will have a significant moderating effect between CMDs and quality of life.

Hypothesis 3a: During pregnancy, social support will have significant moderating effect between CMDs and quality of life.

Hypothesis 3b: After birth, Social support will have a significant moderating effect between CMDs and quality of life.

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Hypothesis 4: CMDs during pregnancy will be negatively correlated with quality of life after birth.

Hypothesis 5: Intimate partner relationship during pregnancy will moderate the relationship between CMDs during pregnancy and quality of life after birth.

Hypothesis 6: Social support will moderate the relationship between CMDs during pregnancy and quality of life after birth.

Hypothesis 7: CMDs during pregnancy will be significantly related to birth outcomes.

5.4 Methodology

5.4.1 Study Two: Wave 1

5.4.1.1Choice of Sampling Targets

Six health facilities were chosen as the setting for this study. These health facilities are Achimota Hospital, Legon Hospital, Ussher Clinic, Adabraka Polyclinic, Mamprobi Polyclinic, and Maamobi Polyclinic. These health facilities were chosen because of their unique locations in the Accra metropolitan area (AMA). All classes of people patronize these health facilities and there was also a good blend of age and socioeconomic status. These settings were therefore chosen in order to get a sample that would be representative of the multicultural and socioeconomic diversity of Accra metropolitan area. Table 5 below shows the location of the 6 health facilities used for the study.

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Table 5: Locations of health facilities utilized within the physical and socioeconomic space of the Accra Metropolitan area

Classification of Neighbourhoods based on income	Ayawaso	Okaikoi	OsuKlottey	Ashieduketeke	Ablekuma
1st class income zones	Legon Hospital				
2nd class income zone		*Achimota Hospital	*Adabraka Polyclinic		
3rd class income zone	*Maamobi Polyclinic				*Mamprobi Polyclinic
4th class income zone				*Ussher Polyclinic (James Town Maternity)	

*These are the most patronized health centers in terms of maternal services within their various sub-metros (Accra Metropolitan Health Directorate, 2016)

According to the Accra Metropolitan Director of Health Services, health services within the Accra metropolitan area are clustered into 5 core sub metros: Ablekuma, Ashiedu Keteke, Ayawaso, Osu Klottey and Okaikoi (B. Adomako, personal communication, February, 17, 2016). Therefore, it is these five sub metros that were used as the basis for choosing health facilities for this study. Also, the city of Accra has been categorized into 4 income zones. These categories are based on both housing and environmental determinations of the various residential suburbs in Accra ("Local Government Bulletin of the Assembly," 2002). These categorizations also helped in choosing the locations for this study to ensure that the settings cut across a cross section of the population within the Accra metropolitan area.

5.4.1.2 Population and Sampling Procedure

The target population for the study were all pregnant women in the Accra metropolitan area. The sample was obtained using the G-power; a priori sample size estimator (Erderfelder, Faul & Buchner, 1996). With 4 predictors in this study, namely;

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depression, anxiety, social support and intimate partner relationship, an effect size of .3, a power of .95 and an alpha of .05, the sample size required was 68 participants. Over sampling was done across all study settings at the beginning of the research, to counter the effects of attrition. One hundred and fifty (150) participants filled the questionnaires initially, although only the data of 122 participants was used for the analysis in both waves. A purposive sampling approach was used since the researcher was interested in a specific attribute of the population, in this case; being 8-9 months pregnant.

5.4.2 Inclusion Criteria

The study included pregnant women who were 18 years and above and were 8-9 months into their pregnancy and were able to give informed consent.

5.4.2.1 Exclusion Criteria

Participants who were unable to give informed consent and were under 18 years of age were excluded from the study. Also, participants who were in their first or second trimester were excluded from the study. The exclusion criteria also included pregnant women who had serious medical condition or complication of pregnancy that might prevent them or affect them negatively if they sat for the interview. Participants with severe learning or intellectual disability or psychosis were also excluded.

5.4.2.2 Research Instruments

Structured questionnaires were used as the main instrument for this study to measure the variables being studied. The dependent variables in this study were; “quality of life” and “birth outcomes”. The independent variables were depression and anxiety considered under the term “common mental disorders”, as well as “positive social support” and “quality of intimate partner relationship”. Previously validated measures with accompanying evidence of good validity and reliability were used. The quantitative study drew on five (5) different

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scales to test the hypotheses (see Appendix A). Each of the 5 questionnaires is described below:

Multidimensional Scale of Perceived Social Support (MSPSS) (Zimet, Dahlem, Zimet & Farley, 1988).

The scale consists of 12 items used to assess social support levels among respondents. Three dimensions of social support; significant other, family and friends are assessed by the MSPSS. The level of social support from significant other is measured by Items 1, 2, 5 and 10. The level of social support from family is measured by items 3, 4, 8 and 11 while the measure of social support from friends is measured by items 6, 7, 9 and 12. Each of these sub-dimensions is scored on a 1 to 7 point Likert scale. For the various dimensions, a mean score between 1 to 2.9 is considered low social support, a mean score between 3 and 5 is considered moderate social support while a mean score between 5.1 and 7 is considered high social support. A Cronbach's Alpha of .813 was reported for this current study exceeding the figure of .7 as recommended by Bland and Altman (1997). Examples of questions in the scale include, "My family really tries to help me" and "There is a special person in my life who cares about my feelings". No change was made to the 12 item scale, as participants had good understanding of the original items.

The Edinburgh Postnatal Depression Scale (EPDS) (Cox, Holden, & Sagovsky, 1987)

The Edinburgh Postnatal Depression Scale is a 10-item Scale used to assess the state of depression among the respondents during pregnancy and after birth. A Likert scale ranging from 0 to 3 was used to score the items on the scale with items 3, 5, 6, 7, 8, 9 and 10 reverse scored. Maximum score on the scale was 30 with a score of 10 or greater indicating possible depression. The EPDS used for the present study reported Cronbach's Alpha = .642 which is below .7 as recommended by Bland and Altman (1997), although some authors consider 0.6 and higher adequate (Field, 2000). The EPDS has been validated within West African

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populations (Uwakwe & Okonkwo, 2003). Weobong at al. (2009) reported the Cronbach's Alpha for the EPDS to be 0.79 with a cutoff score of ten (10). Studies by in Nigeria, Morocco, Zimbabwe, Ethiopia, and South Africa have all utilized a cutoff score of 10 to signify depressive symptomatology (Abiodun, 2006; Agoub, Moussaoui & Battas, 2005; Chibanda, Mangezi, Tshimanga, Woelk, Rusakaniko, et al., 2010; Hanlon et al., 2008; Rochat, 2011). Examples of questions in the scale include, "I have looked forward with enjoyment to things" and "I have felt sad or miserable". The scale was administered without changing or modifying any of the questions because there was good understanding of all items.

Depression Anxiety Stress Scale (DASS-21) (Lovibond & Lovibond, 1995)

This is a questionnaire used to measure the negative emotions that emanate from stress, anxiety and depression. DASS-21 is a revised and shortened version of the DASS-42. The presence of symptoms over the previous weeks is used in the assessment mechanism of the DASS-21. Three subscales comprising of D (Depression), A (Anxiety) or S (stress) are used with each item belonging to one of the dimensions. Each of the three dimensions has their sum of scores which is then multiplied by 2 in order to make it comparable to scores on the DASS-42. The reliability test for the DASS-21 recorded Cronbach's Alpha = .857 which is above .7. According Field (2000), a cronbach's Alpha of 0.6 and higher is adequate. Examples of questions in the DASS-21 include: "I felt scared without any good reason" and "I felt I was close to panic". The anxiety subscale of the scale was used to assess anxiety symptomatology in this study with no item modified or changed as there was general understandability of the questions.

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The Intimate Bond Measure (IBM) (Wilhelm & Parker, 1988).

The Intimate Bond Measure (IBM) was the instrument used in the study to measure quality of intimate partner relationship. The Scale was developed by Wilhelm and Parker (1988) to measure two main dimensions - care and control between partners in an intimate relationship. The scale consisted of 24 items which was subdivided into 2 subscales. The subscales comprised of 12 items for the care dimension and 12 items for control dimension. In this study, all negative items were reversed and the mean score calculated. Lower scores referred to poor quality of intimate partner relationship while higher scores referred to good quality intimate partner relationship. The reliability test for the intimate bond scale recorded Cronbach's Alpha = .752 which is above .7 as recommended by Bland and Altman (1997), although some authors consider 0.6 and higher adequate (Field, 2000). Examples of items in the scale are: "my partner is very considerate of me" and "my partner *tends to control everything I do".* The scores of the control subscale were reversed, and then the total score found was used in the analysis. No items of this scale was changed or modified as it was easy to understand and score.

World Health Organization Quality of Life (WHOQOL–BREF) (WHOQOL GROUP, 1998)

This scale is a subjective, multidimensional scale that is used to assess respondent's level of quality of life. It has 26 items measuring five dimensions. These include psychological health, physical health, environment, social relationships and general health. There is also an item measuring overall perception of the quality of life. The sum of each of the domains makes up the raw score which ranges between 2-10 for general health, 7-35 for physical health, 6-30 for psychological health, 3-15 for social relationships and 8-40 for environment. In this study, a total sum of scores was calculated and the mean found. Scores above the mean indicated a high quality of life while scores below the mean indicated a low

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quality of life. The scale's Cronbach Alpha is reported at .706. Examples of items in the scale used are: "To what extent do you feel your life to be meaningful? and "How satisfied are you with your health"? No item on this scale was changed or modified as they were all well understood by participants.

5.4.3 Pilot Study

After approval was given by the Ethics Committee, a pilot study was conducted at the Madina Polyclinic to assess the psychometric properties of the 5 scales used in the conduct of the main research. A total of 20 pregnant women were used in the pilot study. Essentially the pilot study was conducted by the researcher to get information about how well the questions on the various scales were understood. It was essential for a piolt study to be conducted on the scales as the scales were developed in different settings and its properties were statistically tied to a different population. An exploratory factor analysis (EFA) was conducted on all the scales used (see appendix E). The construct validity of all the instruments used in the study was determined by conducting Principal Component Analysis (PCA). This helped establish the extent to which each item on each scale measures their supposed construct, thereby indicating their meaningfulness on the instrument. According to Field (2009), each item should yield at least a factor loading of not less than .3 to be considered relevant in measuring the construct and the total components extracted should contribute more than 50% of the variances in the data set. The details of the PCA and EFA for items on each instrument are presented (see Appendix E).

Generally, the scales used during the piolt study elicited appropriate responses to demonstrate a general understanding of the questions and what was required of the participants. Based on results from the pilot study, no changes to the overall instrument were necessary. However, the participants after debriefing, expressed dissatisfaction with the

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length of time used to answer the questions in the various scales. This helped the researcher to prepare the participants for the main study by explaining to them the necessity of the study and its benefits, which required that all questions be answered. It also informed the researcher adding a snack break component in order to make participants feel refreshed. It must be noted that the scales were translated into Twi to enable those who were not literate to gain an understanding of the questions and what was required of them to do. The Twi language was chosen because it is well known to be the commonest language spoken in Accra. The focus in translation was to ensure cultural as well as conceptual equivalence and this was done using forward-translations and back-translations. The forward translation was done by the researcher with the back translations being done by a graduate student of the linguistic department of the University of Ghana.

5.4.4 Procedure for First Wave of Main Data Collection

After conducting the pretest and ascertaining the statistical properties of the scales on a local population, the researcher sent a letter of introduction essentially spelling out the title of the research and the aim of the research to the Accra Regional Directorate of the Ghana Health Services. The Directorate in-turn gave approval for the conduct of the study and copies of the approval letter were sent to the 6 health facilities. Once the approval was given by the facility administration, the researcher subsequently went again to introduce herself and the research assistants to the facility administration. A date and time was set for the commencement of the data collection at the health facility. On the set date and time, the researcher and the research assistants met the administrator at the health facility and went together to be introduced to the midwife in-charge of the outpatient department (OPD) of the maternity department. The in-charge of the maternity OPD then introduced the researcher and the assistants to the patients there. After the initial introductions, the researcher was also given the opportunity to tell the patients the purpose of the study and how it aimed to benefit

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them. After the introductions were over, pregnant women between 8-9 months who were interested in the study came up to the researcher and research assistants. In other cases, the researcher went round again to explain the purpose of the research to the women individually and asked them if they were interested in taking part. Those interested were given the information sheet.

In the case where a would-be participant could not read, the information was explained to them coupled with the importance of taking part in both waves of the research. Given the need to track and locate participants for the second wave, relevant contact details including names, email addresses, telephone numbers and places of residence were sought from participants on a separate sheet which was adequately secured and was used only for the retrieval of participants at Wave 2. Participants were strongly assured that all information (including their private contact details) would be kept in the strictest confidence. After the participants completed the questions for the various scales, the researcher and the research assistants debriefed them and also expressed their appreciation to them. This procedure was used for all the 6 health facilities involved in the conduct of the study.

5.4.5 Data Analysis Procedures

SPSS version 23 was used for data analyses in Wave 1. Descriptive statistics (means and standard deviations) and Pearson Product Moment Correlations were conducted to examine the main study variables and their associations. Internal consistency reliabilities for all study variables/measures were also computed and presented in this section.

Secondly, EFA was used to examine how the various items on each measurement load on the various factors/components. The analyses of the data revealed that each EFA met the threshold. For instance, all analyses revealed that the data explained more than 50% of the variances in the data set. Similarly, Bartlett's Test of Sphericity and Kaiser-Meyer-Olkin Measure of Sampling Adequacy for all the EFA met the threshold. The detail of this result is

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presented (see Appendix E). Finally, the hierarchical multiple regression was conducted to examine the relationship between the variables and also to test the hypotheses stated. In each hierarchical multiple regression conducted, age, number of children, education, marital status and religion were controlled. The hierarchical multiple regression conducted tested for the direct relationship between the independent and dependent variables during pregnancy as well as the moderating role of the moderators (social support and intimate partner relationship). Hypothesis 1a, 2a, and 3a were tested using Hierarchical Multiple Regression Analysis while hypothesis 7 was tested using both the Hierarchical Multiple Regression Analysis and the Point biserial Correlation estimated from Pearson r test.

5.4.6 Study Two: Wave 2

5.4.6.1 Introduction

The subsequent paragraphs present Wave 2, which discusses the main research methods employed (e.g. sampling information and data-collection procedures) and data-analytical techniques during the second wave of the research.

5.4.6.2 Sampling and Data Collection

During data collection in the first wave, great efforts were made to collect relevant contact information to ensure that participants could be located in the second wave and appropriately matched to their wave 1 data records. One hundred and twenty two (122) participants targeted for the study were available to take part in Wave Two. Given the panel nature of the research design, it was necessary to have a cohort made up of the same participants who took part in both Wave 1 and Wave 2 in order to facilitate adequate comparisons and analyses.

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5.4.6.3 Inclusion and Exclusion Criteria

Participants included were women who had taken part in the first wave of the study and were between 6th to 12th weeks after birth.

Those who were excluded from this study were women less than 6 weeks after delivery and women who did not take part in Wave 1. This is because data collected in Wave 2, was a follow-up to data collected in Wave 1 of the study.

5.4.6.4 Participant Demographics

The mean age of the participants of the quantitative study was 26 -30 years. Further details of the demographic details of the participants are as shown in Table 6 below:

Table 6: Demographics of Participants

Variables	Frequency	Percentage (%)
Age: 18-25 years	26	21.31
26-30 years	51	41.80
31-35 years	25	20.49
36-40 years	17	13.93
41 years and above	2	1.64
Income: 100-500	65	53.28
501-1000	35	28.69
1001-1500	5	4.10
1501 and above	3	2.46
Children: none	10	8.20
1-2 children	70	57.38
3-4 children	20	16.39
Alcohol: yes	1	.82
No	116	95.08
Weeks since delivered:		
6-7 weeks	46	37.70
8-10 weeks	69	56.56
11 weeks and above	10	8.20
Kind of birth:		
Normal	74	60.66
Caesarean	33	27.05
Forcepts assisted	7	5.74
Vacuum extraction	1	.82
Birth weight: underweight	8	6.56
Normal weight	100	81.97

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Admitted to NICU:		
Yes	3	2.46
No	115	94.26
Baby health issues at birth:		
Yes	4	3.28
No	114	93.44
Labour condition:		
Easy	7	5.74
Painful	80	65.57
Traumatic	32	26.23
Week of birth:		
37-38th week	25	20.49
39th week	74	60.66
40th week +	13	10.66

5.4.7 Data Collection Procedure for Wave 2

The second wave of data collection as part of the panel study, involved collecting data from a cohort of women from Wave One, 6 to 12 weeks after they had given birth. The researcher and research assistants had to book appointments with participants individually in order to continue with the second wave of the data collection. Participants were reminded of their prior participation and were generally willing to participate in the survey again. All participants were also re-informed about the nature and purpose of the research prior to their participation. Some participants, out of the initial 150 that were sampled dropped out for various reasons; some were no longer in Accra, others could not be located at the home address given or had inactive telephone numbers. Still, others were no longer interested in continuing with the research. However because participants were oversampled across all settings at the beginning of the research, it did not change the within group dynamics of the sample and did not affect the targeted number of 122 people intended for the research.

The data collection followed the same format as to the first wave, as participants answered all the 5 scales used in the first wave of the data collection. A few items were given to the participants as a way of showing gratitude and also because gift giving is culturally sanctioned when visiting a mother after birth.

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5.4.8 Research Measures

In keeping with the principal focus of the research, and consistent with the requirements of a two-wave panel design, the structured questionnaires used in wave 1 were re-administered to the same participants with no modifications or changes made to the measures utilized. Data analysis was therefore carried out only on data submitted by the 122 participants who took part in both wave 1 and wave 2.

5.4.9 Data Analysis Procedures for Wave 2

In the first section, descriptive statistics (means and standard deviations) and Pearson product moment correlations were conducted to examine the main study variables and their associations. Internal consistency reliabilities for all study variables/measures were computed and presented in this section. Finally, the hierarchical multiple regressions was conducted to examine the relationship between the variables and also to test the hypotheses stated. In each hierarchical multiple regression conducted, age, number of children, education, marital status and religion were controlled. The hierarchical multiple regression conducted tested for the direct relationship between the independent variable; depression and anxiety (CMD's) and dependent variables quality of life after birth as well as the moderating role of the moderators (positive social support and quality of intimate partner relationship). Hypothesis 1b, 2b, 3b, 4, 5, and 6 were tested using Hierarchical Multiple Regression Analysis.

5.5 Results of Study Two

This section presents the results of the data analysis for Study Two.

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5.5.1 Descriptive statistics on study variables

Descriptive statistics of the study variables are presented in Table 7 below. On the table means and standard deviations were presented as the descriptive statistics for the study variables.

Table 7: Descriptive statistics on study variables

Variables	Mean	Standard Deviation	
AGE	29.3306	5.00477	
NUMBER OF CHILDREN	1.6100	.88975	
DEPRESSION_W1	6.8844	5.90477	
ANXIETY_W1	7.0038	6.65216	
STRESS_W1	6.0165	5.94615	
POSTNATAL_DEPRESSION_W1	9.9220	4.48014	
CARE_W1	32.1754	8.15645	
CONTROL_W1	13.4744	7.33110	
SOCIAL_SUPPORT_W1	14.7935	3.23413	
OVERALL_QUALITY_OF_LIFE_W1	91.5565	9.90608	
POST_NATAL_DEPRESSION_W2	6.6999	7.12185	
DEPRESSION_W2	4.9182	5.08588	
ANXIETY_W2	4.9931	5.45058	
STRESS_W2	3.6424	4.49247	
SOCIAL_SUPPORT_W2	13.7936	2.89330	
CARE_W2	28.1735	6.91165	
CONTROL_W2	14.4391	7.34679	
OVERALL_QUALITY_OF_LIFE_W2	92.2298	8.88921	122

*W1 represents Wave One, which refers to questionnaire administration to women who were 8-9 months pregnant. W2 represents Wave Two, which refers to questionnaire administration to women who are between 6th and 12th week after birth.

Table 7 indicates that CMD (depression and anxiety) and social support at Wave 1 were reported to be higher than CMD and social support at Wave 2. Conversely, quality of life at Wave 1 was reported to be lower than the same variable at Wave 2.

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Test of normality

Even though a number of statistics are available for testing the normality of data, the present study made use of skewness and kurtosis as a measure of the normal distribution of the data set (George & Mallery, 2010). Based on the recommendation provided by George and Mallery (2010) on skewness and kurtosis, the table presented on normality test of dataset showed that both skewness and kurtosis for the study variables met the threshold (-2 to 2), with the exception of anxiety at wave 2 which reported kurtosis=3.78. However, its corresponding skewness value was 1.797. Generally, the table shows that the dataset for the study variables are normally distributed suggesting further statistical analysis can be conducted.

Variables	Minimum	Maximum	Skewness	Kurtosis
Perinatal depression T2	3.00	27.00	.409	-.011
Anxiety T2	-2.87	31.26	1.797	3.778
Intimate relationship T2	18.27	68.00	-.441	-.678
Social support T2	19.00	78.00	-.281	.124
Quality of life T2	64.09	118.03	.579	1.837
Perinatal depression T1	9.00	40.00	.071	-.685
Anxiety T1	4.00	35.71	.188	.288
Intimate relationship T1	12.02	47.00	1.275	.949
Social support T1	13.78	74.09	-.539	.095
Quality of life T1	62.00	116.37	.075	.372

Source: Field survey, 2016.

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5.5.2 Relationship between the study variables

An inter-correlation matrix was conducted to examine the relationship between the study variables. From the inter-correlation matrix presented in Table 8 below, correlation coefficient values from 0.10 to 0.20 are significant at 0.05 whereas correlation coefficient values greater than .20 are significant at 0.01.

Table 8: Inter-correlation matrix between the study variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. age	1.00															
2. No. of children	0.44															
3.Anxiety_W1	0.07	0.16														
4.Stress_W1	0.03	0.09	0.89													
5.Depre_W1	-0.03	0.07	0.46	0.51												
6.Care_W1	0.09	0.04	-0.25	-0.22	-0.23											
7.Control_W1	0.00	-0.02	0.23	0.18	0.28	-0.14										
8.SS_W1	0.07	0.14	-0.19	-0.18	-0.16	0.09	-0.09									
9.QOL_W1	-0.06	-0.07	-0.30	-0.35	-0.28	0.05	0.03	0.39								
10.Depre_W2	-0.18	-0.05	0.06	0.01	0.08	-0.01	0.01	-0.10	0.04							
11.Anxiety_W2	-0.03	0.22	0.08	0.14	0.09	0.09	-0.03	0.01	-0.17	0.37						
12.Stress_W2	-0.03	0.22	0.07	0.11	0.10	0.09	0.01	-0.01	-0.22	0.29	0.91					
13.SS_W2	0.15	0.01	0.06	0.11	0.07	-0.12	-0.08	0.08	0.04	-0.22	-0.12	-0.17				
14.CareW2	0.06	-0.15	-0.06	0.00	-0.13	-0.11	-0.11	0.02	-0.01	-0.12	-0.09	-0.09	0.27			
15.Control_W2	-0.11	0.06	0.08	0.07	-0.03	-0.08	0.09	-0.01	0.07	0.03	0.27	0.28	0.08	-0.21		
16.QOL_W2	0.15	0.03	-0.10	-0.06	-0.01	0.01	-0.171	0.05	0.17	-0.09	-0.03	-0.07	0.33	0.26	0.05	

NB: W1=wave 1; W2 = wave 2; depre=depression; SS=social support; QOL=quality of life.

Values from 0.10 to 0.20 are significant at 0.05 whereas correlation coefficient values greater than .20 are significant at 0.01.

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Table 8 above indicates that explanatory variables at wave 1 such as anxiety, depression and social support had significant correlations with quality of life at Wave 1. Similarly, antecedent variables after birth such as depression, and social support had significant correlations with quality of life at Wave 2.

Multicollinearity

The intercorrelation matrix reveals that there were no strong relationships between the study variables especially, the independent variables. Depression reported a moderate relationship with anxiety[$r=.46$, $p<0.01$; $r=.37$, $p<0.01$] at wave 1 and 2 respectively. There existed no strong relationship between the study variables hence there was no multicollinearity.

5.5.3 Hypotheses Testing

5.5.3.1 Regression Analyses of Predictors and Quality of Life

A series of multiple regression analyses were conducted to examine the effects of demographic, mental health variables on quality of life at Wave 1 and 2. In each of the regression model, demographic variables (i.e. age, number of children, marital status, education and religion) were entered in the first step, followed by depression, anxiety, social support and intimate partner relationship at the second step and then the interaction terms between depression and social support, intimate partner relationship and depression, social support and anxiety and intimate partner relationship and anxiety at the step 3. The findings for the analyzed data are presented separately for Wave 1 and Wave 2 as well as the effect of wave 1 variables on wave 2 variables.

5.5.3.2 Hypotheses testing at wave 1

Cross-Sectional Analyses of the Predictors of Quality of Life at Wave 1

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Cross sectional analyses tested the effect of the predictive variables on quality of life of respondents at Wave 1 which is presented in Table 9 below. Hypothesis 1a, predicted that there will be a significant negative relationship between CMDs and quality of life during pregnancy. Hypothesis 2a, predicted that during pregnancy, Intimate partner relationship will moderate the relationship between CMDs and quality of life, while Hypothesis 3a, predicted that during pregnancy, social support will moderate the relationship between CMDs and quality of life.

WAVE 1

Table 9: Hierarchical regression analysis showing relationship between Wave 1 independent variables and quality of life at Wave 1

Step and variable	Beta	R^2	F change
Step 1:		.04	.94
Age	.08		
Number of children	-.03		
Marital status	-.11		
Educational level	-.05		
Religion	.12		
Step 2:		.27**	8.98
Age	.00		
Number of children	-.00		
Marital status	-.08		
Educational level	.02		
Religion	.21*		
depression W1	-.24*		
Anxiety W1	-.11		
Social support (SS) W1	.37**		
Intimate partner relationship(IPR) W1	-.01	.	
Step 3:		.32	1.69
Age	.01		
Number of children	-.03		
Marital status	-.08		
Educational level	.02		
Religion	.20*		
Depression W1	-.21*		
Anxiety W1	-.10		
Social support W1	.40**		
Intimate partner relationship W1	-.02		
Z_SS W1 x Z_Depression	-.20*		
Z_SS W1 x Z_Anxiety	.02		
Z_IPR W1 x Z_depression	-.03		
Z_IPR W1 x Z_anxiety	.06		

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NB: W1 =wave 1; W2 = wave 2; Z_SS= standard score for social support; Z_depression= standard score for depression; Z_IPR= standard score for intimate partner relationship; Z_anxiety= standard score for anxiety.

In relation to the hypotheses, Table 9 shows that model 2 (depression W1, anxiety W1, social support and intimate partner relationship) related significantly with pregnant women's quality of life at Wave 1 [R^2= .27, $p<0.05$; β=-.24, $p<0.05$; β =-.11, $p>0.05$; β=.37, $p<0.05$ and β=-.01, $p>0.05$] respectively. The findings reveal that hypothesis 1a which stated that "Common mental disorders (CMDs) during pregnancy will be negatively related to quality of life during pregnancy" was partially supported.

However, model 3 (Z_SS W1 x Z_Depression, Z_SS W1 x Z_Anxiety, Z_IPR W1 x Z_depression and Z_IPR W1 x Z_anxiety) did not significantly predict quality of life among pregnant women at Wave 1 (R^2= .32, $p>0.05$) but the interaction between social support and depression independently predicted quality of life [β =-.20, $p<0.05$]. Hence, hypothesis 3a which state that, "Social support during pregnancy will moderate the relationship between CMDs during pregnancy and quality of life during pregnancy" was partially supported. Conversely, hypothesis 2a which stated that, "Intimate partner relationship during pregnancy will moderate the relationship between CMDs quality of life during pregnancy" was not supported.

5.5.4 Hypotheses Testing at Wave 2

Hierarchical regression was conducted to examine the relationship between the study variables after birth. However, in the hierarchical regression analysis, the predictors (CMDs, social support and quality of intimate partner relationship) at birth were controlled in order to determine the precise associations between the variables after birth.

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Hypothesis 1b; predicted that “after birth, CMDs will be negatively related to quality of life”. Hypothesis 2b; predicted that “after birth, Intimate partner relationship will moderate the relationship between CMDs and quality of life” while Hypothesis 3b; predicted that “after birth, social support will moderate the relationship between CMDs and quality of life”. The results are shown in Table 10 below.

WAVE 2 Results

Table 10: Hierarchical Regression Analyses showing relationship between Wave 2 independent variables and quality of life at Wave 2

Step and variable	Beta	R^2	F change
Step 1:		.06	1.17
Quality of life W1	.20*		
Age	.11		
Number of children	-.17		
Marital status	-.14		
Education	-.16		
Religion	.00		
Step 2:		.08	.75
Quality of life	.22*		
Age	.07		
Number of children	-.14		
Marital status	-.11		
Education	-.11		
Religion	-.01		
Depression W1	.17		
Anxiety W1	.13		
Social support W1	.09		
IPR W1	.02		
Step 3:		.35**	10.71
Quality of life	.21*		
Age	-.08		
Number of children	-.04		
Marital status	-.11		
Education	-.01		
Religion	.03		
Depression W1	.05		
Anxiety W1	.16		
Social support W1	.02		
IPR W1	.10		
Depression W2	-.23**		
Anxiety W2	-.11		
Social Support W2	.45**		
IPR W2	.15		
Step 4:		.39	1.90
Quality of life	.21*		
Age	-.06		

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Children	-.06
Marital status	-.10
Education	.07
Religion	.00
Depression W1	.04
Anxiety W1	.13
Social support W1	-.02
IPR W1	.08
Depression W2	-.32*
Anxiety W2	-.25
Social support W2	.50**
IPR W2	.17
Z_SS W2 x Z_depression W2	.19*
Z_SS W2 x Z_Anxiety W2	.12
Z_IPR W2 x Z_Depression W2	-.17
Z_IPR W2 x Z_Anxiety W2	-.05

NB: W1=wave 1; W2 = wave 2; Z_SS= standard score for social support; Z_depression= standard score for depression; Z_IPR= standard score for intimate partner relationship; Z_anxiety= standard score for anxiety.

Table 10 above, shows that model 1 (quality of life W1, age, number of children, marital status, education and religion) did not significantly predict quality of pregnant women's life at Wave 2 [R^2=.06, p>0.05]. In relation to the hypotheses, model 3 (depression W2 and anxiety W2, social support and IPR W2) jointly related significantly with quality of life after birth at Wave 2 [R^2= .35, p<0.05; β=-23, p<0.05; β= -.11, p>0.05; β=.45, p<0.01 and β=.15, p>0.05] respectively. However, only depression and social support were the significant predictors of quality of life implying that hypothesis 1b which states "CMDs after birth will be negatively related to quality of life after birth" was partially supported.

Model 4 reveals no significant relationship between the model and quality of life at T2 [R^2= .39, p>0.05]. However, the interaction effect between social support and depression at Wave 2 was significant [β=.19, p<0.05]. The findings reveal that hypothesis 3b which stated "Social support after birth will moderate the relationship between CMDs after birth and quality of life after birth" was partially supported whereas hypothesis 2b which stated

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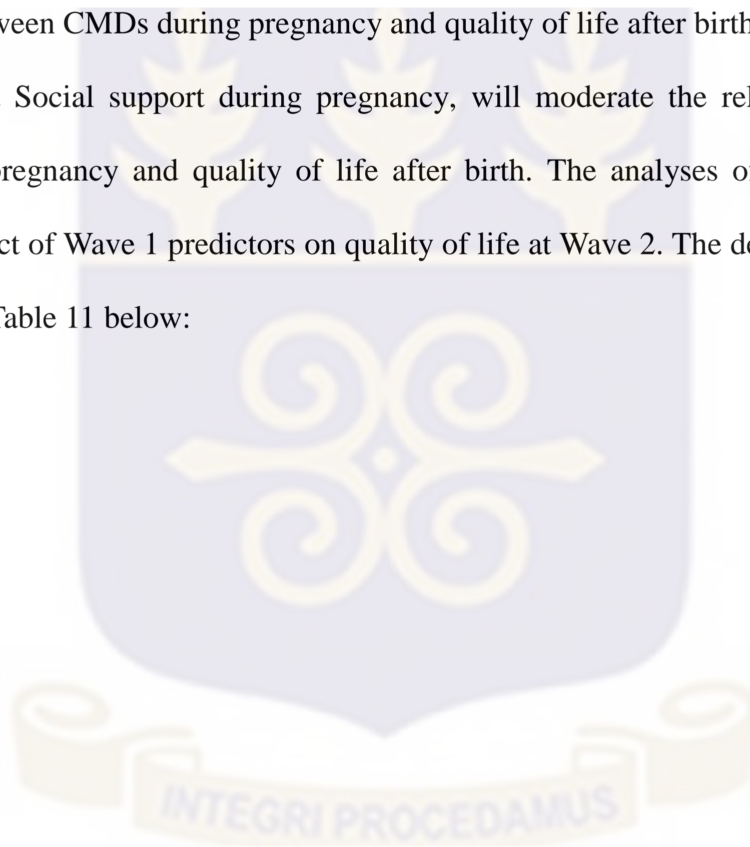
"Intimate partner relationship after birth will moderate the relationship between CMDs after birth and quality of life after birth" was not supported

5.5.5 The relationship between CMDs at Wave 1 and quality of life at Wave 2

The effect of the predictors at Wave 1 on the quality of life at Wave 2 was also explored after controlling for quality of life at Wave 1. It was anticipated in Hypothesis 4, that CMDs during pregnancy will be negatively related to quality of life after birth. Hypothesis 5 also predicted that Intimate partner relationship during pregnancy, will moderate the relationship between CMDs during pregnancy and quality of life after birth, while Hypothesis 6 predicted that Social support during pregnancy, will moderate the relationship between CMDs during pregnancy and quality of life after birth. The analyses of data revealed no significant impact of Wave 1 predictors on quality of life at Wave 2. The detail of the result is summarized in Table 11 below:



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Testing of Lagged Effects of CMDs at Wave 1 and Quality Of Life at Wave 2

Table 11: Hierarchical regression table showing relationship CMDs during pregnancy and quality of life after birth

Step and variable	Beta	R^2	F change
Step 1:		.06	1.17
Quality of life W1	.20*		
Age	.11		
Number of children	-.17		
Marital status	-.11		
Education	-.16		
Religion	.00		
Step 2:		.08	.75
Quality of life	.22*		
Age	.07		
Number of children	-.14		
Marital status	-.11		
Education	-.11		
Religion	-.01		
Depression W1	.15		
Anxiety W1	.16		
SS W1	.10		
IPR W1	.02		
Step 3:		.09	.13
Quality of life	.21*		
Age	.05		
Number of children	-.13		
Marital status	-.13		
Education	-.10		
Religion	-.02		
Depression W1	.12		
Anxiety W1	.10		
Social support W1	.11		
IPR W1	-.03		
Z_SS W1 x Z_Depression	-.12		
Z_SS W1 x Z_Anxiety	-.07		
Z_IPR W1 x Z_Depression	.00		
Z_IPR W1 x Z_Anxiety	-.03		

NB: W1=wave 1; W2= wave 2; Z_SS= standard score for social support; Z_depression= standard score for depression; Z_IPR= standard score for intimate partner relationship; Z_anxiety= standard score for anxiety.

Table 11 above, depicts the effect of the predictors (depression, anxiety, social support and intimate partner relationship at Wave 1) on the quality of life of respondents at Wave 2. Table 11 shows that model 1 (age, number of children, marital status, religion and education) did not significantly predict quality of pregnant women's life at Wave 2 [R^2=.05, p>0.05]. Table 11 further reveals that model 2 (depression W1, anxiety W1, social support

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W1 and quality of intimate partner relationship W1) related insignificantly with pregnant women's quality of life at Wave 2 [R^2= .06, p>0.05] indicating that hypothesis 4 which stated "CMDs during pregnancy will negatively predict quality of life after birth" was not supported.

Similarly, model 3 (Z_SS W1 x Z_Depression, Z_SS W1 x Z_anxiety, Z_ IPR W1 x Z_depression and Z_IPR x Z_anxiety) did not relate significantly with quality of life among pregnant women at Wave 2 [R^2= .08, p>0.05]. This finding also indicates that hypothesis 5 which stated "Intimate partner relationship during pregnancy will moderate the relationship between CMDs during pregnancy with quality of life after birth" was not supported. Similarly, hypothesis 6 which stated "Social support will moderate the relationship between CMDs during pregnancy with quality of life after birth" was also not supported.

5.5.6 CMDs and Birth Outcomes

In order to establish the relationship between depression and anxiety during pregnancy on one hand as well as birth outcomes (admission to NICU and birth weight) on the other hand two different analyses were used. The Hierarchical multiple regression analyses was used to test the relationship between CMDs and birth weight while the Point-biserial correlation estimated from Pearson r test was utilised to test the relationship between CMDs and admission to NICU. It was anticipated in this study as stated in Hypothesis 7 that, *CMDs during pregnancy will be significantly related to birth outcomes. Birth outcomes in this study comprised of "birth weight", "Admission to the Neonatal Intensive Care Unit" (NICU)* and preterm birth. However there was no report of preterm birth in the sample. Consequently, "birth weight" and "admission to NICU" formed the basis of the analysis for "birth outcomes". Tables 12 and 13 below show the results of the analyses. A summary of the result using the hierarchical multiple regression analyses is presented in the table below.

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Table 12: A summary of the hierarchical multiple regression showing the relationship between CMDs and birth weight.

	Beta	R^2	F change
Step 1:		.02	1.35
Age	.16		
Number of children	-.05		
Step 2:		.06	1.97
Age	.15		
Number of Children	-.03		
Depression at wave 1	.01		
Anxiety at wave 1	-.19*		

From table 12 above, it is observed that whereas age and number of children contribute 2% of the changes in birth weight (R^2 =. 02, $p > 0.05$)], CMDs in addition to age and number of children collectively contributed 6% of the changes in birth weight (R^2 = .06, $p > 0.05$)]. This indicates that CMDs contributed 4% of the variances in birth weight but was not statistically significant (R^2=.04, $p > .05$)]. However, anxiety during pregnancy independently significantly predicted birth weight [(β=-.19, $p < .05$)] indicating that hypothesis 7 which stated "CMDs will be significantly related to birth outcomes "was partially supported.

A Point biserial correlation estimated from Pearson r analysis was also carried out to test the relationship between CMD's and admission to the Neonatal Intensive Care Unit.

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Table 13: A summary of the relationship between depression, anxiety and birth outcome (admission to NICU)

	1	2	3
1. Admission to NICU	1		
2. Depression	-.09	1	
3. Anxiety	-.07	.46**	1

****p<0.01**

Table 13 as indicated above, shows that both anxiety (r = -.07, p > .05) and depression (r = -.09, p > .05) did not relate significantly with admission to NICU.This indicated that that hypothesis 7 which stated that "CMDs will be significantly related to birth outcomes "was partially supported.The summary of findings are shown in Table 14 below:

Table 14: Summary of findings on hypothesis testing

Hypothesis	Outcome
Hypothesis 1a: During pregnancy, CMDs will be negatively related to quality of life. **Hypothesis 1b**: After birth, CMDs will be negatively related to quality of life.	**1a. Partially Supported** **1b. Partially Supported**
Hypothesis 2a: During pregnancy, Intimate partner relationship will moderate the relationship between CMDs and quality of life. **Hypothesis 2b**: After birth, Intimate partner relationship will moderate the relationship between CMDs and quality of life.	**2a. Not supported** **2b. Not supported**
Hypothesis 3a: During pregnancy, Social support will moderate the relationship between CMDs and quality of life. **Hypothesis 3b**: After birth, Social support will moderate the relationship between CMDs and quality of life.	**3a. Partially Supported** **3b. Partially supported**

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Hypothesis 4: CMDs during pregnancy will be negatively related to quality of life after birth.	**4. Not supported**
Hypothesis 5. Intimate partner relationship during pregnancy will moderate the relationship between CMDs during pregnancy with quality of life after birth.	**5. Not supported**
Hypothesis 6: Social support during pregnancy, will moderate the relationship between CMDs during pregnancy and quality of life after birth.	**6. Not supported**
Hypothesis 7: CMDs during pregnancy will be significantly related to birth outcomes.	**7. Partially supported**

5.5.7 Other Findings

Table 15: Rates of depression and anxiety at wave 1 and wave 2

	Frequency (N)	Percentage (%)
Depression W1:		
Low	32	26.2
Mild	43	35.2
Moderate	34	27.9
Severe	12	9.8
Anxiety W1:		
Low	81	66.4
Mild	9	7.4
Moderate	15	12.3
Severe	7	5.7
Extremely severe	10	8.2
Depression W2:		
Low	85	69.7
Mild	17	13.9
Moderate	15	12.3
Severe	5	4.1
Anxiety W2:		
Low	104	85.2
Mild	7	5.7
Moderate	6	4.9
Severe	3	2.5
Extremely severe	1	.8

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Table 15 above, shows that 37.7% of the participants indicated moderate to severe depressive symptomatology within the sample during pregnancy while 18% indicated moderate to severe depressive symptomatology after birth. In terms of anxiety during pregnancy, 16.4% indicated moderate to severe anxiety symptomatology while 4.8 % indicated moderate to severe symptomatology after birth.

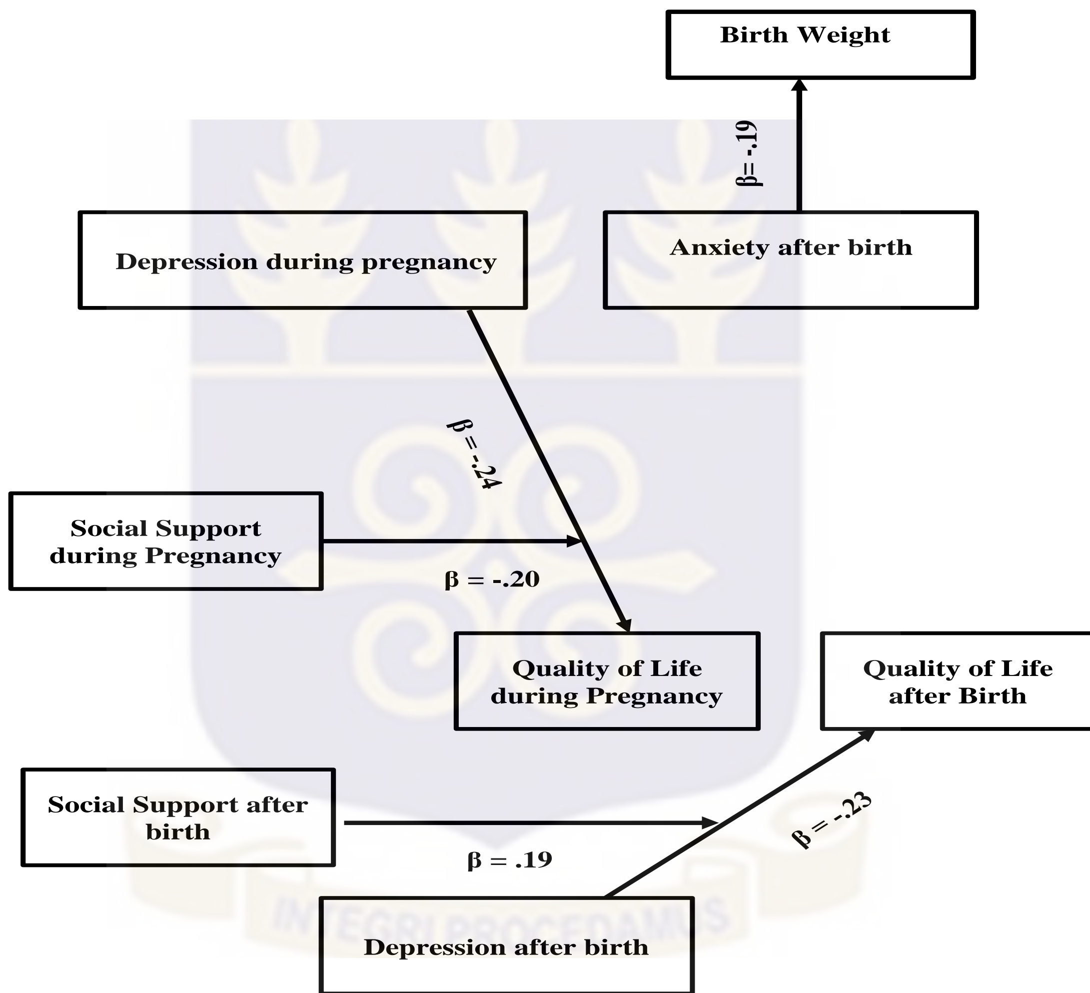

Figure 5.9 showing Observed model of Study Two

Figure 5.9 above, shows the observed model of Study 2 after the testing of the hypotheses. Depression during pregnancy was negatively and significantly related with quality of life during pregnancy with social support moderating that relationship. Similarly,

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depression after birth was negatively and significantly related with quality of life after birth with social support again moderating that relationship. On the other hand, anxiety during pregnancy related negatively and significantly with birth weight of one's baby.

5.6 Discussion of Study Two (Quantitative)

This section presents a discussion of the results from the data analysis in Study Two.

Relationship between CMD's and quality of life

In this study, the hypothesis which anticipated that CMDs will be negatively related to quality of life both during pregnancy and after birth was partially supported. During pregnancy, while anxiety and depression together, accounted for a significant change in the model, as separate constructs, it was depression rather than anxiety that was significantly related to quality of life. These findings are in line with studies that have shown that common mental disorders reduce social participation, as well as contribute to adverse economic and psychological outcomes for the women themselves as well as their families (Fisher et al., 2010; Penner-Goeke et al., 2015; WHO, 2008).

The independent association of depression with a diminished quality of life is in line with other studies (Abbaszadeh et al., 2013; Berlim, Mattevi & Fleck, 2003) which found a significant relationship between depression and quality of life during pregnancy. This finding is also supported by studies (Johnson, Weissman & Klerman,1992; Judd, Paulus, Wells & Rapaport, 1996) which showed that higher rates of depression was related to higher household tensions, limitations in work and reductions in total work reporting days, as well as poor physical health and strain in social relationships. Depression in women was also related to disruptions in marriage and family as well as work and leisure activities. The finding of this study is also confirmed by Forozandeh, Delaram and Deris (2003), who found that pregnant women who were depressed tended to have more impairment relating to their

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physical and functional health. According to Abbaszadeh et al. (2013), depressed pregnant women were more likely to be affected within the physical and mental health spheres as well as overall effects in their quality of life. Indeed CMDs are considered a major morbidity of the perinatal period, and according to Reichenheim et al. (2009), for every woman who dies due to pregnancy-related causes, there are about 20 or 30 others who continue to live with acute or chronic morbidity which negatively impacts on their quality of life.

In the period after birth, although there was no significant change accounted for by depression and anxiety together, depression alone was significant in its relationship to quality of life. This finding is similar to those that have been reported in studies (Da Costa et al., 2006; Darcy et al., 2011). According to Cooper et al. (2002), depression after birth occurs three times more in developing countries than in high income countries and their study in South Africa found that two months after birth, the prevalence rate of depression was 34.7%. Depression after birth may be traced to the impact of physical health problems due to childbirth such as, instrumental delivery and its associated complications, pain from an episiotomy, and urinary as well as fecal incontinence which limit women's ability to function effectively both in self-care, child care and engaging socially. These effects bring in their wake, sudden and often emotionally distressing alterations in the lives of women leading to diminished perceived quality of life (Webb, Bloch, Coyne, Chung, Bennett & Culhane, 2008). Other studies have also found significant relationships between depression and functional impairments (Howard et al., 2011; Rahman et al., 2004; Sadat, Taebi, Saberi, Abedzadeh & Kalarhoudi, 2013). A study by Durukan, İlhan, Bumin and Aycan (2011), also found a lower quality of life in women with postpartum depression using the World Health Organization Quality of Life–Brief (WHOQOL-BREF) scale. It is agreed (Cheng & Li, 2008; Zubaran & Foresti, 2011), that although the effects of depression after birth have negative consequences on both mother and baby, there are few studies that have been done studying

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that relationship. This current research, therefore, is important in highlighting this important but neglected area, especially within a Ghanaian setting.

Results from the testing of hypothesis did not show any independent significant relationships between anxiety and quality of life, both during pregnancy and after birth. This finding is in line with Buist, Gotman and Yonkers (2011), who suggest that generalized anxiety and anxiety symptomatology, in general, is lowered during pregnancy and after birth. However anxiety together with depression, showed a significant relationship with quality of life. According to Chou, Lin, Cooney, Walker and Riggs (2003) anxiety during the antenatal period is related to more somatic outcomes such as serious vomiting and fatigue, which yields negative emotional consequences leading to lowered quality of life. This is also in line with findings by Gharehzad, Ghorban and Khalatbari (2013). According to Kelly, Russo and Katon (2001) premature babies and babies who die soon after birth, bring unanticipated abruptions, psychological stress and anxiety and require new ways of adaptation.

Quality of intimate partner relationship, common mental disorder and quality of life

In this current study, quality of intimate partner relationship did not moderate the relationship between CMDs and quality of life both during pregnancy and after birth. This finding is contrary to studies (Chandran et al., 2002; Fisher et al., 2004; Inandi et al., 2002; Rahman, Iqbal & Harrington, 2003; Patel et al., 2002; Rodrigues et al., 2003; Wynter, Tran, Rowe & Fisher, 2017). However, situating this finding within a sociocultural context sheds more light on its relevance. According to UNDP's gender-related development index, 32 of the most 33 gender unequal countries in the world are located in sub-Saharan Africa (Watkins, 2005). Ghana is still a male hegemonic society with social and familial authority vested in males and husbands. According to Uchendu (2008) boys in Africa are socialized to exhibit aggression, assertiveness and violence as part of the stereotype of masculinity, with expressions of softness and dependence characterized as inferior.

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Socialization on male dominance starts right from when a woman is pregnant; when members of the community make judgments based on the relative value of having a male child as against having a female child. These stereotypes are perpetuated by teachers and members of the community and internalized by children who see and hear them. Often, school becomes the space for the perpetuation of these stereotypes with girls becoming the butt of harassment and other forms of violence that tend to confirm their lower position (Barker et al., 2012). These differences in power are also given expression in the distribution of chores within the home as well as the control of the reproductive rights of women by husbands.

In Ghana, Ampofo and Boateng (2008) suggests, that a boy who do not fit into gender sterotypes are often given denigrating labels such as “bema-basia,” meaning “man woman,” while a girl will often earn the title of “babasia-kokonin,” meaning “woman-cock” or “male woman” (p. 250). According to Ampofo and Boateng (2008) marriage in Ghana is based within a mutual understanding of subordination and domination, with the status of a woman being that of a dependent while the man assumes the role of her guardian.

These internalized, rigid and stereotypic stratifications may account for women’s nonchalance about the quality of intimate partner relationships. It may be that women perceive behaviours and attitudes of intimate partners that may raise eyebrows in certain contexts as normal, and that embracing these attributes of their husbands are the fulfillment of their obligations as good wives and mothers (Rizo & Macy, 2011). Consequently, response to issues of lack of quality intimate partner relationship may derive from acceptance of such sociocultural practices that serve to mediate women’s reactions and responses to them.

Another reason that may account for the no moderating effects of intimate partner relationship may be traced to the effects of intimate partner violence. Indeed, although intimate partner violence was not assessed in this study, it has been found to be a major

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contributor to mental disorder in women during the perinatal period. According to a WHO report by the Garcia-Moreno, Jansen, Ellsberg, Heise, and Watts (2005), between 4% and 12% of pregnant women are subjected to violence by the father of their unborn child and pregnancy in and of itself, has not been found to be protective against intimate partner abuse.

Rather, research by Campbell, Garcia-Moreno, and Sharps (2007) and Kendall-Tackett (2008) has shown that pregnancy rather increases the risk of intimate partner abuse. A systematic review of the literature on intimate partner abuse from developing countries estimated the rate of prevalence to be between 4% to 29% with risk factors including unplanned for pregnancies, low education and income (Nasir & Hyder, 2003). This notwithstanding, most studies on the subject of intimate partner violence, focus on the physical or sexual forms of violence, without a consideration of the psychological, verbal and economic aspects of violence, which although more subtle, characterize relationships that are coercive and controlling (Buzawa & Buzawa, 2013). According to Coker- Appiah and Cusack (1999) not only is violence from male intimate partner's common in Ghana, but it is accepted by women as inherent to the relationship.

This finding is similar to what pertains in other parts of Africa (Rani, Bonu & Diop-Sidibe, 2004). Similarly, according to Edin, Dahlgren, Lalos, and Hogberg (2010) even in cases where women experience domestic violence, many are averse to reporting it for fear of stigma and shame. Women have been shown to struggle to stay in abusive relationships for the sake of their unborn babies; rationalizing the stabilizing effect being with a partner will have on their children's future and social status (Finnbogadóttir, Dykes & Wann-Hansson, 2014).

Another reason that may be adduced for the result; that quality of intimate partner relationships did not moderate the relationship between common mental disorders and quality of life during pregnancy and after birth, may be that women did not find it socially desirable

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to speak negatively about their husbands and their home affairs. This may stem from representations of marriage and family that position women as responsible for building the home. Consequently, they are entrusted with the role of keeping a husband's secrets away from neighbours and the community. According to Mannell, Jackson and Umutoni (2016), a focus group discussion about women's perceptions of intimate partner violence in Rwanda, unearthed issues of representations of marriage that hindered reporting of negative issues within the home. One participant in illustrating this point used a Rwandan proverb that says; "the heart of a woman is the coffin of a man's sins" (Mannell, Jackson & Umutoni, 2016. P.6). Dzobo (1973) in his exposition of Ewe proverbs in Ghana, presents a proverb, translated as, "you do not use your left hand, to point the way to your hometown". This proverb according to Dzobo teaches the moral of being faithful to one's, home, family and lineage. In that regard, it follows that it may not be culturally acceptable to denounce or speak negatively of one's spouse just as it is not acceptable to do same of people who have passed away.

Furthermore, in seeking to understand the lack of a moderating relationship between quality of intimate partner relationship and quality of life, difficult relationships with the partner's family, particularly intense pressure from a mother-in-law, have been shown to be more prevalent among women who are depressed in both qualitative investigations and survey investigations (Chandran et al., 2002; Inandi et al., 2002; Rahman, Iqbal & Harrington, 2003; Rodrigues et al., 2003; Fisher et al., 2004). This finding may serve to erode the effect of the quality of the intimate partner relationship for the woman in the perinatal period. Women in the perinatal period are in a vulnerable position physically, psychologically and practically and may be at the mercy of mother-in-laws and other family members, with whom they may not necessarily want to associate with.

Studies have indicated that practical devoted support offers psychological protection (Chandran et al., 2002; Fisher et al., 2004; Inandi et al., 2002; Rahman, Iqbal & Harrington,

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2003; Rodrigues et al., 2003). However, especially in African contexts, practical devoted care lie outside the remit of men, because it is culturally frowned upon for them to do certain types of housework deemed demeaning. Practical perinatal care, therefore, lie within the domains of elderly women in the family. In fact, common perinatal mental disorders have been found to more likely occur in women who are cared for after birth, by their mother-in-law, who had strained relations with their mothers–in–law and who had inadequate social support (Black, et al., 2007; Fisher, Tran & Tran, 2007; Gao, Chan & Mao, 2009). A husband's affection in such a case may do little to assuage rigid and restrictive cultural prohibitions and practices that the woman in the perinatal period may be subjected to, in the spirit of culture and tradition, paving the way for the full weight of the negative effects of common mental health disorders on the woman.

Social Support, common mental disorder and quality of life

In the current study, social support partially moderated the relationship between common mental disorders and quality of life. Although it independently moderated the relationship between depression and quality of life during pregnancy and after birth, it did not independently moderate the relationship between anxiety and quality of life both during and after birth. Social support and its moderating effect between CMDs and quality of life is similar to the findings in several other studies (Hosseini et al., 2009; Moser, Li & Power 2003; Tyano & Keren, 2010). A study by Leahy-Warren and McCarthy (2011) found that when psychosocial variables, including social support, are introduced in a relationship, the influence of the biological variables statistically reduced. Similarly, studies by Webster et al. (2000) points to the fact that an absence of social support increases the likelihood for postnatal depression, while strong social ties can serve as a modulating factor. From the foregoing, it can be deduced that social support has a great case for being a prime focus of

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intervention, as it frequently foretells a range of indices of women's perinatal mental health status as confirmed by this study.

On the other hand, social support did not moderate the relationship between anxiety and quality of life during pregnancy or after birth, contrary to findings (Gao, Chan & Mao, 2009; Fisher, Tran & Tran, 2007). With reference to Study One, one of the themes that emerged from that study was the financial implications of having a baby. According to Cooper et al. (2002), there is strong evidence that poverty directly affects maternal mental health in resource-poor countries with associations between financial anxiety and mental disorder (Fisher et al., 2014). This may proffer some explanations as to why social support did not moderate the relationship between anxiety and quality of life in this study. Participants in Study One, complained about the high cost of maternal health care, especially in cases where the woman was not working. This created a situation where she had to depend entirely either on her partner or on her family. With no structured and active social care system, failings on the part of either a partner, or family to provide financially, leaves the woman in dire straits, unable to get even the basic nutrition essential for the health and sustenance of herself, and her baby. Ghana is a developing nation and a majority of the population is not characterized as rich. Thus, even in situations where there is the presence of practical social support, financial concerns and its implications; feeding herself, paying hospital bills, buying baby clothes, toiletries, and other baby necessities, may still cause anxiety for the woman within a deprived socio-economic context.

In fact, several studies (Fisher et al., 2004; Patel, Rodrigues & DeSouza, 2002) seem to suggest that rates of CMDs were lowered among women who had a secure job as well as those whose partners were employed. The effect of this finding may be relative in terms of the amount on the paycheck at the end of the month for those with secure employment. Thus, social support although hugely beneficial to women in the perinatal period, may not be able

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to absolve them from all anxieties that they may experience, leaving them vulnerable to a diminished sense of quality of life.

Common mental disorders during pregnancy and birth outcomes

There was partial support for the relationship between CMDs and birth outcomes. Concerning the outcomes assessed; birth weight and admission to NICU, birth weight was the only outcome significant with anxiety. The finding partially confirm the findings of studies which showed that anxiety in pregnancy had a negative impact on the fetus and contributed to adverse birth outcomes (Bonari et al., 2004; Glover & O'Connor, 2002; Patel et al., 2006). Grote et al. (2010) also conducted research which indicated that women who endure psychological difficulties during pregnancy usually experience sub-optimal birth outcomes, including mortality and morbidity, shorter gestation, and lower birth weight. Likely mechanisms of the relationship between anxiety and low birth weight include, unhealthy maternal antenatal behaviour including reduced attendance to antenatal care, increased substance use, and lower weight gain in pregnancy, which in turn leads to an increased likelihood of LBW (Bonari et al., 2004; Dayan et al., 2002; Patel et al., 2006). Despite these vulnerabilities, the evidence linking maternal depressive and anxiety symptoms with infant LBW is conflicting. Studies from India, Pakistan and Brazil have all found associations between mental health problems during pregnancy and LBW (Rahman, Bunn, Lovel & Creed, 2007; Patel et al., 2006).

However, studies from United States, Sweden, China and Ethiopia, have shown no significant associations (Andersson, Sundström-Poromaa, Wulff, Åström, & Bixo, 2004; Chung, Lau, Yip, Chiu, & Lee, 2001; Hanlon et al., 2009; Suri et al., 2007). In Ghana, the study by Weobong et al. (2014) between antenatal depression and negative outcomes for mothers and their newborn babies in rural Ghana did not find correlations between antenatal depression and birth weight although there were marginal associations with preterm births.

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This lack of association with birth weight is similar to findings of the current study, which also found no associations between depression and birth weight.

Lagged effect of Wave 1 predictors on Wave 2 criterion variables

In terms of the analysis of the lagged effects of Wave 1 predictors on Wave 2 dependent variables, there were no associations found between CMDs at Wave 1 and quality of life at Wave 2. Also, there were no moderating effects of intimate partner relationship and social support on CMDs at Wave 1 and quality of life at Wave 2. This finding fits in with the general African worldview which regards childbirth as a happy occasion and therefore participants may have been unwilling to describe it within a negative narrative (Stewart, Umar, Gleadow-Ware, Creed & Bristow, 2014). According to Beck (2006) about half of the women with postpartum depression are not detected because new mothers are not willing to reveal the negative emotions they experience to anyone, not even to their spouses. This may be caused by embarrassment and fear of separation from their babies (Kennedy, Beck, & Driscoll, 2002). Furthermore, pregnancy and the postnatal period have been conceptualized as separate phases that may not necessarily be subject to the same influences. A study by Heron et al. (2004) has indicated that there is a higher prevalence of depression during pregnancy than in the post-partum period. Also, a study by Wisner et al. (2013) indicates that 33% of depression after birth has a pregnancy onset while 27% has a pre-pregnancy onset. A study among Africans in the USA also found that according to participants, postnatal depression was only experienced by white women and that it was not a proper illness but a sign of weakness (Amankwaa, 2003).

The findings of Study Two and the ensuing discussion capture the complexity of the experience of CMDs and their effects within an urban setting in Accra. It underscores the importance of taking a critical look at the multifactorial causes impinging the experience and

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effect of common mental disorders within this particular context. Emanating from Study 2, were lingering issues that needed to be addressed in obtaining a holistic view of the subject under study. Issues from Study Two that remain germane include; the etiological models behind CMDs symptomatology, the influence of intimate partner relationship on CMD's and the context of mental health care in Accra. Consequently, a third study (Study Three) which was qualitative in nature was conducted to explore the contextual factors undergirding these issues. The table below shows the connection between Study Two and Study Three.

Table 16: Presentation of connection between Study 2 and Study 3

Findings	**Input from Study 2 into Study 3**
Hypothesis 2b: After birth, Intimate partner relationship will moderate the relationship between CMDs and quality of life. **Not supported** **Hypothesis 4:** CMDs during pregnancy will be negatively related to quality of life after birth. **Not Supported** **Hypothesis 5:** Intimate partner relationship during pregnancy, will moderate the relationship between CMDs during pregnancy and quality of life after birth. **Not supported** **Hypothesis 6:** Social support during pregnancy, will moderate the relationship	**Research Question** Results From Study Two, indicates that some of the hypotheses that were based on relationships between variables after birth, were not supported. Is this because pregnancy and childbirth were conceptualized differently by participants? This led the researcher into a deeper exploration of the participant's conceptualizations of the period after birth in order to contribute to the evidence base in the development of appropriate and relevant treatment and intervention strategies.

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between CMDs during pregnancy and quality of life after birth. **Not supported**	
Hypothesis 1a: During pregnancy, CMDs will be negatively related to quality of life. **Partially supported** **Hypothesis 1b:** After birth, CMDs will be negatively related to quality of life. **Partially supported**	**Research Question** The results of positive CMDs symptomatology, led the researcher to explore the contextual factors underlying the causes of CMDs, in order to inform better detection, prevention and treatment efforts.
Hypothesis 1a: During pregnancy, CMDs will be negatively related to quality of life. **Partially supported** **Hypothesis 1b:** After birth, CMDs will be negatively related to quality of life. **Partially supported**	**Research Question** In spite of the hypothesis on the relationship between CMDs and quality of life being partially supported, evidently, not all who showed CMDs symptomatology had negative effects on their quality of life. This understanding led to an exploration of the coping resources used among participants and the ways in which they mitigated the negative effects of CMDs on their daily lives.

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Hypothesis 2a: During pregnancy, Intimate partner relationship will moderate the relationship between CMDs and quality of life. **Not supported** Hypothesis 2b: After birth, Intimate partner relationship will moderate the relationship between CMDs and quality of life. **Not supported** **Hypothesis 5:** Intimate partner relationship during pregnancy, will moderate the relationship between CMDs during pregnancy and quality of life after birth. **Not supported**	**Research Question** **Qualitative method used; joint couple interview** Intimate partner relationships emerged as an important relationship in study 1, although it could not be determined whether its effect was mostly positive or negative. In Study 2, intimate partner relationship did not moderate the relationship between CMDs and quality of life both during pregnancy and after birth. These results prompted further exploration into the role of intimate partner relationships during the perinatal period.
Hypothesis 7: CMDs during pregnancy will be significantly related to birth outcomes. **Partially supported**	**Research Question and Qualitative method used (Key Informant Interviews).** The partial support, of the relationship between CMDs and birth outcomes has serious implications on the health and wellbeing of mothers and children globally.

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	With Ghana grappling with high under five mortality, it becomes imperative to explore the role of mental health within maternity health care in Accra, with an aim to highlight its potential in reducing maternal and infant morbidity and mortality.

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CHAPTER SIX

STUDY THREE

6.1 Introduction

This chapter presents the methods, findings and results from the third study, which forms the second qualitative aspect of this research. This study had two interrelated objectives. Firstly, it aimed to build upon the quantitative findings established in Study Two by investigating the explanatory and contextual factors that might underlie the following findings; the symptomatology of CMDs during the perinatal period, the relationship between CMDs and quality of life after birth and the moderating effect of the quality of intimate partner relationship during the perinatal period. The second objective sought to explore perceptions of perinatal mental health care services within Accra.

A qualitative research design is effective in providing a means for probing more into the effect of variables, to clarify meanings and to gain an understanding into the reasons behind the results (Seale, 2004). Using qualitative interviews can reveal some information that the researcher may not have asked in the questionnaire (Bailey, 1994). Three qualitative methods were used in this phase:

1. **In-depth interviews** (IDIs) were the first qualitative method used. It consisted of eight participants, and had the aim of exploring the issues behind some of the findings from Study Two, specifically; the specific experiences behind depressive and anxiety symptomatology during the perinatal period, participant's conceptualisations of birth and the period after birth and the specific coping resources utilized by participants.

2. **Key informant interviews**: This was the second qualitative method used. Key informants are often used in qualitative research because they are believed to be experts on a topic being explored. They are therefore usually chosen due to their position within the community, their professional skills as well as the knowledge they possess which the researcher may require

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(Marshall, 1996). Three (3) key informants were interviewed with the aim to explore the role of mental health in perinatal care. Participants were made up of; one Psychologist, one Midwife and one Traditional Birth Attendant (TBA).

Justification for using key informants

Key informants are important in providing information on key contextual variables that may not be amenable to measurement (Hughes & Preski, 1997). The purpose of using key informant interviews in this study was to provide the context of perinatal mental health services in Accra by exploring the expert views and opinions on the current context of perinatal mental services within maternity health care in Ghana.

3. Joint Couple Interview: This was the third qualitative method used. A joint couple interview broadly termed a dyadic interview is a qualitative method approach where spouses are interviewed together (Bjørnholt & Farstad, 2012). It is a developing methodological approach although it has long been established within therapeutic contexts (Morris, 2001). Joint couple interviews provide the platform to observe, as it unfolds, a couple's interactions and dynamics as well as the nature of power relationships, through both verbal exchanges and nonverbal cues (Eisikovits & Koren, 2010). According to Bjørnholt and Farstad (2012) joint couple interviews also hold advantages over individual interviews in providing rich and complete data, by enabling the pair to fill in each other's memory gaps, as well as challenge and reinforce each other's accounts in situ thereby creating a shared and holistic narrative (Seymour, Dix & Eardley, 1995). Joint couple interviews have been used in various studies in various combinations (either interviewing them together or separately) (Jo et al., 2007; Morris, 2001). A disadvantage of joint couple interviews have been the tendency for one partner to dominate the interview especially in dyads characterized by unequal power distribution (Nierse & Abma, 2011). In such relationships men have been found to be the

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more overbearing, speaking on behalf of, or interrupting the other partner (Jordan et al., 1992).

Justification for the use of joint couple interview

The purpose of using a joint couple interview in this study was to explore the underlying factors behind the findings in Study Two; where quality of intimate partner relationships did not moderate the relationship between CMDs and quality of life both during pregnancy and after birth. Consequently, one joint couple interview was conducted with the aim of gaining a deeper understanding into the role and influence of intimate partners during the perinatal period, that went beyond just what participants said but was also based on observation of the nonverbal cues, interaction dynamics and points of tension or agreement between a couple. The information thus gleaned will be critical in shedding important light on the influence of intimate partner relationship on the course and effect of perinatal mental health (Duman, Grodin, Cespedes, Fine, Otilingham, & Margolin, 2007). It consisted of one couple interviewed in their home.

6.2 Research Questions

- What are the specific causes of CMDs as experienced by participants in the perinatal period?
- What are the constructions of intimate partner relationships within the Ghanaian setting?
- What are participants' conceptualizations of CMDS after birth?
- What are the coping resources utilized by participants after birth?
- What is the context of perinatal mental health care in Ghana?

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6.3 Methodology (In-depth interviews)

6.3.1 Study Design

This study was a follow-up qualitative study, to explore further the contextual issues underlying some of the results of Study Two.

6.3.2 Sample

Participants were drawn from the same cohort used in the quantitative study (Study Two). The sample of focus in the follow up study was selected using intensity sampling with an emphasis on participants who manifested depression and anxiety symptomatology strongly but not extremely (Patton, 1990). After that, convenience sampling was used to recruit participants into the study. After interviewing 8 participants, saturation was reached and no more participants were recruited. Four participants who screened for moderate depression on the EPDS and four who screened for moderate anxiety on the DASS-21 were included in this study.

6.3.3 Participant Profiles

Names have been changed and some personal information omitted to ensure anonymity. Where they desired, the women chose their own pseudonyms, however, if they did not wish to do so the researcher chose a name. Table 17 describes the participants' profiles.

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Table 17: Participants' Profile

Pseudo name	Age	Marital Status	No. of children	Qualifying criteria
Baaba	35	married	3	Scored above designated cut off on DASS-21
Abena	30	cohabiting	2	Scored above designated cut off on EPDS
Ajekai	20	Single	1	Scored above designated cut off on DASS-21
Daniella	30	married	3	Scored above designated cut off on DASS-21
Adaku	29	Single	1	Scored above cut off on EPDS
Rose	25	Married	2	Scored above designated cut off on DASS-21
Akos	32	Married	3	Scored above designated cut off on EPDS
Martha	32	Married	4	Scored above designated cut off on EPDS

6.3.4 Inclusion and exclusion criteria

Participants, after consent, were eligible for inclusion in the qualitative phase of the study if they had participated in Study Two. Participants were also included if they scored above the cut-off scores of 14 on the EPDS (McCabe-Beane, Segre, Perkhounkova, Stuart, &

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O'Hara, 2015) and 10 on the DASS-21 (Lovibond, & Lovibond, 1995) both during pregnancy and after birth.

Participants were excluded if they did not take part in Study Two and if they did not score above the aforementioned cut-offs on the EPDS and DASS-21.

6.3.5 Data Collection

A semi-structured interview guide was used for this study (see Appendix B). It was first piloted on two people and based on their feedback; it was amended to include fewer questions. Participants were asked a few core questions with further probing and clarification emerging as necessary. All of the interviews were audio-taped and later transcribed. Tape-recorded interviews were transcribed verbatim and included both verbal and nonverbal (e.g. laughter, false starts, pauses) so as to ensure that the transcripts retained the information needed in a way which was 'true' to its original nature.

6.3.6 Procedure

Participants who made up the group of interest were contacted by telephone. All the ones called up were interested in participating in the follow-up interviews. A day was then scheduled between the researcher and the participants, individually, at a location chosen by the participant. On the scheduled day, the researcher went to the designated location. Before the interview started, the purpose of the study was again reiterated to the participant along with the rights to withdraw from the study at any time or refuse to answer any question they were uncomfortable with. Informed consent was sought from the participant after which the interview commenced. Interviews lasted about an hour. After the interview, a token amount was given to each participant to buy "koko" (a popular local cereal-based porridge) for their babies.

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6.3.7 Data Analyses

The data from the interviews were analyzed using IPA. An elaboration of which has been given in Study One.

6.4 Methodology (Joint Couple Interview)

6.4.1 Sampling technique

Participants were recruited using convenience sampling because of the ease of access to the participant and their spouse at the same time.

6.4.2 Characteristics of participants in joint couple interview

The couples interviewed were Abiba and Abass (all participant names are pseudonyms). They have been married for 7 years and have 3 children. Abiba is a housewife and Abass works in the construction industry; constructing filling stations. They live at Nima, a suburb of Accra. The profile of the participants are shown in Table 18 below:

Table 18: Profile of participants

Name	Age	Occupation	No. of years married	No. of children	Location of residence
Abiba	27	Housewife	7 years	3	Nima
Abass	35	Construction	7 years	3	Nima

6.4.3 Data Collection

A semi-structured interview guide was used to facilitate ease of data collection (see Appendix B). It started with broad questions exploring the couple's experience of the perinatal period, narrowing it down to the role of the intimate partner during the perinatal period and then to how the quality of their relationship affected their partner's mental wellbeing.

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6.4.4 Procedure

Women who met the criteria of scoring above the determined cut-off score of 14 on the EPDS and 10 on the DASS-21 respectively were called up and asked if they, as well as their partners were interested in taking part in a follow-up study. Only two women indicated that they, as well as their husbands would be interested in participating. A follow-up call was made at an agreed time where both couples were given information pertaining to the study in terms of its nature and aims. A day was scheduled with both couples respectively. On the said date, the researcher went to the home of the first couple and obtained informed consent before the interview started. The interview lasted about 60 minutes. Participants were informed that they were under no compulsion to take part and that they could withdraw at any time or refuse to answer any question that they were uncomfortable with. The interview started by enquiring generally of their experience of the perinatal period, tapering down to questions about the role of the intimate partner in the overall mental wellbeing and quality of life of the woman. The second would-be couple participants called to cancel the meeting.

6.5 Methodology (Key Informant Interviews)

6.5.1 Sampling method

The snowball sampling technique was used to recruit information- rich participants into the study based on the recommendations of a number of people (Patton, 1990). The key informants were all professionals within the field of maternal or mental health. The key informants were recommended by other people as professionals working in the field, who would be suitable participants.

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6.5.2 Description of Key Informants

One midwife, a psychologist and a Traditional Birth Attendant (TBA) were interviewed. Mercy is a midwife at a large tertiary hospital in Accra. Maame Dufie is a TBA who has about 20 years of experience overseeing deliveries at her practices. Dan is a senior clinical psychologist who has experience of being attached to the maternity unit of an Accra based hospital. Table 19 below shows the key informant profiles:

Table 19: Key Informant Profiles

Name	Occupation	Age	Location
Maame Dufie	TBA	60	Accra
Mercy	Midwife	38	Accra
Dan	Psychologist	35	Accra

6.5.3 Inclusion Criteria

Participation criteria for the key informants were that they needed to be a professional currently involved in the field of maternity or mental health.

6.5.4 Data Collection

A semi-structured interview guide was used to collect data from key informants (see Appendix B). For key informant interviews, the three main categories of topics of interest were: General description of professional experience of key informant; Discussion on the state of perinatal metal health services within Accra; and Relevance of perinatal mental health services in maternity settings.

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6.5.5 Procedure for key informant interviews

On the day agreed for the interview, the researcher went to the location indicated by the key informant as preferable to them. Information sheets and consent forms were provided prior to the interview taking place. A rapport was created in the first few minutes with all appropriate introductions done before the interview. At the end of the interview, the main points gathered were rehearsed to make sure all significant information had been captured. The key informant was then thanked for the time spent and the valuable information given. This marked the end of the interview. The length of interviews with key informants ranged from 60 minutes to 97 minutes. Face-to-face interviews offered a great opportunity to modify the line of enquiry and follow up their responses. Gathering qualitative accounts from key informants was valuable because it allowed the researcher to identify the key issues underlying perinatal mental health services within a Ghanaian context among a collective group of strategic individuals.

6.6 Findings

This section is based on an exploration of the contextual issues underlying some of the findings from Study Two, and also an exploration of perinatal mental health services within Accra. Five main themes emerged (with subthemes): *Conceptions about Childbirth* (subthemes: "Normative views of childbirth" and "critical discourses on childbirth" and "religio-cultural practices after childbirth"), *Explanatory models of CMD symptomatology (*sub themes: Past birth experiences, "Experiences during the period of pregnancy", "Experiences during labour" and "Experiences after birth"), *Coping after birth* (subthemes: "Sense of self efficacy", "Spiritual beliefs" and "The use of behavioural distractions"), *Constructions of Intimate Partner relationship* (subthemes: "Male positionality in intimate relationships", "Women's agency in intimate relationships"), *Perspectives on perinatal mental health care* (subthemes: "Unmet need for perinatal mental health services" and "The

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need for an integrated and culturally competent perinatal mental health service”). These themes and their constituent sub themes are illustrated in the Table 20 below and are analyzed further in this section.

Table 20: Master Themes and related subthemes

Master Themes	Subthemes
Conceptions of Childbirth	Normative views of childbirth Critical discourses on childbirth Religio-cultural practices after childbirth
Explanatory models of CMD symptomatology	Past birth experiences Experiences during the period of pregnancy Experiences during labour Experiences after birth
Coping after birth	Sense of self efficacy Spiritual beliefs The use of behavioural distractions
Constructions of Intimate Partner relationship	Male positionality in intimate relationships Women’s agency in intimate relationships
Perspectives on perinatal mental health care	Unmet need for perinatal mental health services The need for an Integrated and culturally competent perinatal mental health service

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6.6.1 Conceptions of Childbirth

Women in this study spoke of their conceptions of childbirth which essentially consisted of normative views of childbirth, critical discourses on childbirth as well as religio-cultural practices after childbirth.

Normative views of childbirth

Participants discussed their conceptions about childbirth using the terms, "duty" and "normal". According to Akos, "You know, childbirth is every woman's duty so I take it as normal…you just need to know how to take care of yourself" (Akos, 32).

Akos narrative points to underlying traditional conceptions about childbirth that mediate women's experiences and expectations. Traditionally in Ghana, childbirth is required of every woman and a failure to take up that responsibility may lead to stigma and other negative consequences.

Critical Discourses on Childbirth

Some participants however, described childbirth in more grave terms. According to Adaku:

> If you are pregnant, you are between life and death. If someone is pregnant, the person is between life and death. That is why a woman is told, *netrinkwa! Netrinka! Netrinkwa!* [Congratulations! Congratulations! Congratulations!] And she wears white when she delivers successfully. This means she has left death and come into life. This is because during labour if God doesn't intervene and you don't even push well you could die through that (Adaku, 29).

Although pregnancy and childbirth is a joyful and anticipated event, the high rates of maternal mortality especially in sub Saharan Africa, make it a very precarious period filled

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with trepidation about the unknown future. This crossroad is what Adaku may have conceived as being between life and death.

Religio-cultural practices after childbirth

Participants in this study spoke of the naming ceremony and its various symbolisms in their conceptions of childbirth. According to Martha, the naming ceremony:

> That's the joy of every mother. She continues, that's your special day. Everyone will come and congratulate you; family and friends, be with you, that makes me very happy…your old friends will come, your family will be with you to celebrate your new born baby...it brings people together, we have fun (Martha, 32).

It can be gleaned from Martha's narrative that naming ceremonies was a mother's day of joy. However it was also the society's day of joy. They rejoiced that the woman had embraced her role and life giving functions as espoused within traditional society. The ceremony was therefore an embodiment of society's recognition of women's acceptance of their role and place in society. It seemed that by embracing their cultural identities, they also embraced the honour associated with motherhood in Ghanaian society.

The naming ceremony was also empowering for most participants, however, this was so, only if the woman's partner was a willing participant and it had his blessing. According to Adaku:

> When the father of my child was called to name him, he told me to name the child myself. So I was praying day and night, I don't sleep in this room. Even when my child wasn't one month old, I will carry him at my back and go for prayer meetings with him. Because it had become a disgrace for me that I had given birth and could not get a man to name my baby and some people were even mocking me with it. After much prayer, God heard me and touched the man's heart and he came by himself to say he wants to name the child (Adaku, 29).

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It can be gleaned from Adaku's narrative, that naming ceremonies reaffirmed the practise of male hegemony in traditional society, such that in cases where partners rejected paternity, not only did women bear the shame and name calling during pregnancy, but after birth also, because they did not have a man to name their child.

Religious beliefs and prescriptions also played a role in the considerations of naming ceremonies. According to Rose:

> I take all my children to church to have their naming ceremonies. Even Jesus Christ when he was born was taken to the temple on the 7th day to be out-doored. One is therefore duty bound; as a show of appreciation to God for the life of the child, and also for your own life; helping you to have a safe birth, to take your child to the church to be named (Rose, 25).

From Rose's perspective, naming ceremonies were designed to show gratitude to God for the blessing of a child. Thus the mother was beholden to God, and it behoved her to show that gratitude with a church naming ceremony.

Naming ceremonies were also discussed by participants as occasions for the conferment of identity on an individual. According to Rose:

> It makes me really happy that I have given birth and my child is not summoned by "hey" or "herh" but is given a proper name…so it is a practice that brings great joy and celebration (Rose, 25).

Similarly Akos said:

> For instance if you have three boys all named Akwasi, and you require the services of a particular one, the mention of Akwasi, will draw the attention of all of them. However, if you say Akwasi Owusu or Akwasi Asante, then you can identify the particular one you want…It helps give the child an identity " (Akos, 32).

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From Akos voice, it is inferred, that naming ceremonies are important spaces to pass on collective societal consciousness, values systems and orientations to the next generation. One of the earliest symbolic actions in this regard, is the giving of a name, which points the individual to further self-discovery and self-identity.

6.6.2 Explanatory models of CMD symptomatology

This theme addresses participants' accounts of the experiences and possible mechanisms underlying their elevated scores on the EPDS and DASS-21. These are respectively captured under the four main sub-themes: past birth experiences, experiences during the period of pregnancy, experiences during labour and experiences after birth.

Past birth experiences

Past birth experiences, emerged as an antecedent of CMD symptomatology for participants. According to Baaba, she felt very anxious nearing term, because of a past traumatic birth experience. She said, "Yes with my second born, I had a very difficult birth, so when I remember it, it makes me very anxious (Baaba, 35).

Baaba's anxiety, as a consequence of a past difficult birth, may lend credence to the veracity of the concept of birth trauma; leading to the development of postnatal post traumatic birth disorder. In Ghanaian settings, as occurs elsewhere, the expression of trauma after birth, tends to be hushed and brushed under the carpet with the excuse that all else should be forgotten as long as one's baby was healthy (Madsen, 1994). Consequently those disenfranchised feelings of trauma may lead to negative outcomes and complications in subsequent pregnancies, as Baaba elucidated.

Martha also described what caused her to be anxious about her impending birth. She said: "so I have been to theatre like three times… I was afraid for the spiritual aspect and saying eiii this thing again" (Martha, 32). Martha's feelings of anxiety seem to encompass both medical and spiritual dimensions. Among women in developing countries, caesarean

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sections are still regarded as a curse on an unfaithful woman and the lot of weak women. It is therefore looked upon with suspicion, aversion, misconception, fear, guilt, misery and anger (Orji, Ogunniyi & Onwudiegwu, 2003). These notions of caesarean sections as a curse may help to explain Martha's fear and apprehension, not just about having the procedure, but also about its spiritual implications. These issues reinforce the perspective of perinatal mental health problems as multifaceted problems involving the medical, psychosocial, economic and spiritual dimensions and requiring interventions across all the levels.

Experiences during the period of pregnancy

Participants in this study also attributed their elevated symptomatology of depression and anxiety, to experiences within the period of pregnancy. According to Baaba, anxiety about a physiological problem contributed to the anxious feelings she experienced. She said,

The only problem I had were these veins, Oh! I have forgotten the name…yes! yes! varicose veins…I was told by one nurse that it could give me problems when I go to deliver. One nurse told me that if my delivery is not done at this hospital, it will because of the veins on my leg, they are connected to my womb and it's very dangerous. I felt disturbed (Baaba, 35).

From Baaba's perspective, her experience of anxiety derived from a physical condition. According to her, she was told that it could affect her during birth and this made her anxious. Perhaps a bit more information from her midwife would have helped her know the probable complications she was likely to encounter, and therefore enabled an effective management plan to be put in place which would have given her a sense of control and lessened her anxiety.

Another reason given by participants for elevated scores on depression and anxiety screening tools, derived from conflicting information from health personnel. For Rose, it was

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the confusion surrounding her due date that caused her a lot of anxiety. Her midwife tagged June as her expected due date. However, the participant herself objected to that date because, she knew her expected due date was in July. She said:

> When I became pregnant I was given June as my due date, however I also knew it was July. So theirs was June, and mine was July. So, when it was getting to the end of June and I hadn't had a baby, I said what are these people saying? Because the nurse told me that if I hadn't given birth by 4th June, I should come and see doctor so they can determine the next course of action. So I told the nurse that we should wait till the end of July… this issue worried me a lot and I began to think excessively about it…it also made me anxious, but God intervened (Rose, 25).

It can be gleaned from Rose' narrative that there was a power play of some sorts going on between the health professional and the client, as to who owned the birth experience. This conflict is an indictment on the patient-centred approach, which is beautifully worded into the patient charter of the Ghana Health service and displayed in health facilities all over Accra. Moreover, this issue asks questions of, just how much of a say, the client has in her own care.

Other participants spoke about their body image during the perinatal period and its effect on their mental health. For Abena, it was the changes pregnancy brought to her body and her interpretations of those changes that caused some of the depressed feelings. She said:

> You know when you are pregnant, your body changes, …yes you are not as beautiful as you were when you were not pregnant…and you know these men, maybe now that you are pregnant you are not as beautiful as he knew you to be…he doesn't even find you attractive anymore…it brings one a lot of problems (Abena, 30)

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It is inferred from Abena's voice, that the negative emotions she experienced were tied, not only to her self-perception, but also emanated from her evaluation of dominant masculine conceptualizations of beauty.

Experiences during Labour

Participants talked about the experience of labour and how it may have contributed to the development or exacerbation of CMD symptomatology. Adaku, talked about issues during labour as causing significant distress for her. She said:

> I passed through a lot of heartache…it got to a point when I got to the hospital, the labour was not progressing again, it stopped, so when I feel the contraction and I call for the nurse, by the time they come around me, I don't feel the contractions again, so I was nicknamed 'atiko" [it has stopped], at the hospital…so they left me alone…I really suffered...I have a child already, I went at 3am so I was estimating that in three hours I should have delivered, but it did not happen like that and the baby was not coming, so the nurses forced me and in the process gave me an episiotomy and then sewed me back up. That was even more painful than the birth itself (Adaku, 29).

It can be gleaned from Adaku's narrative that there were significant low points during her labour that may have contributed to her elevated assessment scores. The first low point had to do with the non-progression of her labour; which meant that she was in pain for a longer time than she anticipated. The second low point was that her struggle with labour was so captivating that she was given a nickname by the nurses and other patients; it had become a standing joke. The third significant low point for Adaku, was that the nurses left her alone. She spoke here of just how much she had suffered, seemingly giving expression to the demoralizing nature of their actions. The final low point was when the nurses gave her an episiotomy which she expressed as being more painful than the birth itself. All the low points touched upon, constitute critical incidents; packed with significant psychological implications

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which stretch beyond the four walls of a labour ward, and with consequences that the woman and child may never recover from.

Experiences after birth

Some participants described their elevated symptom scores as emanating from issues after birth, such as, problems with breastfeeding. According to Akos, issues arising from feeding her baby caused her considerable amount of guilt and other negative emotions. She said:

> After birth, I have gone through a lot of pain, I have had problems with my breast…my breastmilk kicked in at about a week after I had my baby, however I was putting the baby to the breast even before this time because I was told he had to get the first milk in order to offer him protection. So, I continued giving it to him before he finally took to sucking. By that time, the nipples were all sore. I was really in pain before he started sucking, because the breast was full of milk but the baby couldn't grip the breast. This caused me a lot of pain and it took me about 2 months before I became normal… but even now, it has started again...so I have stopped breastfeeding because even when he sucks there is blood coming out… but when I go to the hospital, they say it is normal. This situation is making me very stressed because I feel guilty that I have stopped breastfeeding but I am also in pain " (Akos, 32).

Akos voice suggests she felt guilty for not breastfeeding her son because she had been educated on the benefits of breastfeeding during her postnatal weighing checks and did not want to deny her child the benefits that she knew he would derive from breastfeeding. However, a part of root cause of Akos' self-guilt may derive from the rigid stance of health professionals on issues of breastfeeding. The one size fits all approach to breastfeeding education and promotion surely spells doom and gloom for mothers who cannot breastfeed and for babies who are not breastfed.

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Other participants also spoke of financial concerns after birth as accounting for increased mental health problems. According to Rose:

> Life is difficult for a woman who has given birth and by reason of that, can no longer go out to work. At least when you go out to work, you are hopeful you may get something to bring home. But now, not being able to go to work, and with children; you will need pampers, soap, petty things you need to support yourself. Since you are not working, you will not get them. …I faced such a situation and money was difficult to come by (Rose, 25).

From Rose's perspective, the financial difficulties women experiences after birth contribute to elevated symptoms of distress. Most women who were previously working may be unable to return to work immediately after having a baby. For those outside of formal employment sectors and without maternity leave benefits, they may be left to rely on savings, or on partners and family members. When help from these quarters are not forthcoming, the mental health of women are greatly compromised as they struggle to make ends meet.

Other participants cited a lack of practical and emotional support after childbirth as some of the after-birth experiences that contributed to their elevate CMDs symptomatology. According to Baaba:

> After having my baby, the "thinking too much" is still there…there is nobody to help me, the stress and others. She adds, "I have two girls already, plus this one, it's not easy for me at all…my headmistress is always angry and asking me, why are you late? Why are you late? and so many problems. Now she is demanding that I start full time next month. With this baby, how possible? (Baaba, 35).

Baaba works as a teacher in a private school, and clearly, she did not find the maternity leave she was given adequate. Her lament brings to the fore the issue of the length of maternity leave in Ghana and how well suited it is to the needs of working women.

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6.6.3 Coping after Birth

In terms of the coping resources available to them and used by them, participants described having a sense of self efficacy, beliefs in spirituality: resting on faith, the use of cultural identities and the use of behavioural distractions as being helpful during this period.

Sense of self efficacy

Participants in this study described self–belief; that they could overcome the challenges confronting them, as one of the strategies that helped them to cope. According to Martha:

> I knew I will go and come, I will go and come. I've gone through it before so why not…I was motivating myself" she went further to say, "I am that quiet type but I'm very strong, the things I can endure you have no idea…I have a very strong endurance (Maratha, 32).

It can be gleaned from Martha's narrative that she believed in herself and in her ability to go through whatever challenge that came her way. She believed the best for herself and believed that she had what it took to win.

Baaba also spoke of her experience in coping after birth: " I wake up early…it's not easy taking care of 3 children, being forceful….if you don't do it, who will do it for you…I am a type of person I don't like to put my problems on people" (Baaba, 35).

Like Martha, Baaba also exhibited a sense of self efficacy by taking actions that she knew would bring her good results. She believed in her ability to get the job done and this empowered her to take goal directed actions that helped her cope with the daily challenges she faced.

Beliefs in spirituality; having faith

Just as emerged in Study One of this current research, faith was a valuable resource that participants used in coping with the experiences of pregnancy; which also included

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CMDs symptomatology. Adaku recounted her ordeal during labour and how her belief in God helped her. She said:

> There was no help anywhere. I put all my trust in God. When you trust in God he will not put you to shame. God? When I look at what God has done in my life, I become happy, because if I don't become happy I may commit suicide because of what I am going through (Adaku, 29).

She goes on to say:

> I passed through a lot of heartache at the hospital…I suffered…I suffered...I really suffered. There was no one with me at the hospital. No family member was with me at the hospital. I was alone. I beseeched God! I pleaded loudly, Jesus! Jesus! God has helped me. He has answered me, so all my hope is in God (Adaku, 29).

Adaku was recounting how she implored God to help her when her labour was not progressing and how He had listened to her prayers and helped her deliver her baby. She spoke of her suffering in the hospital and spoke of the lack of any social support, but she credits God for coming through for her. Although she was alone; she was alone with God.

Other participants also mentioned spirituality and faith as helping them cope with their experiences. According to Martha: "Yes faith in God, God He has never failed me, unless I don't cry to Him, He answers my prayers, whatever I ask God, He does it".

From Martha's perspective, her belief in God gave her a sense of assurance and security. It gave her a superior vantage point in her dealing with challenges, because she believed that God had her back, and was always going to make everything alright.

The use of behavioural distractions

Participants in this study also reported the use of behavioural distractions such as a focus on work, and focusing on being grateful for the joy that their babies brought to them. According to Ajekai, "I sell vegetables at Malata market so I go and buy them at

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Agbogbloshie. I go only on particular days. I am always busy and so it helps me to cope, and also helps me to supplement the family income" (Ajekai, 20).

Abena also explained:

I went to live with my mother after giving birth. I returned not long ago, so I am struggling to get my customers back. The shop helps me to make ends meet. You know if the man doesn't have any money and it's not like he is pretending, but you both know the state of finances, that there is no money, there is nothing one can do about it and you just have to adjust (Abena, 30).

The use of, "I am always busy" and "adjust" gives a sense of how work served as a positive distraction for Ajekai and Abena. Staying busy allowed them to shift focus from negative emotions that had the ability to depress them and make them anxious, onto something positive; at least in terms of its monetary returns.

For other participants, the focus on being grateful for the joy their babies brought to them was another form of behavioural distraction that helped them cope. According to Martha: "when I heard the cry of my baby, I put everything aside. The cry of my baby makes me the happiest person on earth. Anytime I look at my children, I know that I am blessed and I move on".

It can be gleaned from Martha's narrative that focusing on the bond between her baby and herself generated positive feelings within her that helped her cope with any challenges she may have faced.

Akos in explaining the ways in which she copes with the challenges she faced says:

It is love, the love between you and the baby, if you love the baby, the baby will also reciprocate it. For some women, they do not even love the baby in their wombs because they will say the baby's father did not even care for them during pregnancy,

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so you are using the pain to hurt the child because what you think is the same as the baby thinks (Akos, 32).

From Akos' perspective, it is important for women to shift from focusing on negative emotions of hurt and pain and rather focus on the love they have for their babies, as this will make their babies love them in return, and in so doing, make it all worthwhile. For her, this is a way to cope with the negative emotions.. .

6.6.4 Constructions of Intimate Partner relationship

Observation was made of some significant themes from the joint couple interview on the role of intimate partners during the perinatal period. Abass seemed more dominant during the conversations, taking the lead to explain issues. Abiba took a somewhat more backseat approach and was happy to corroborate what her husband said. The couple disagreed when she refused to admit that she was thinking excessively during her pregnancy. Abass however disagreed with her and explained that, it was after the she tested positive for hepatitis B that she started experiencing intense negative affect. Her husband intimated that she would cry often but when pressed to corroborate that statement she just laughed. It seemed that she was embarrassed to admit her feelings of distress. This is in line with studies that have shown that women are generally reluctant to admit negative feelings especially after childbirth since they think it will be construed as a sign of weakness on their part (Amankwaa, 2003). Further issues that emerged during the joint couple interview are captured under the subthemes; "male positionality in intimate relationships" and "women's agency in intimate relationships".

Male positionality in intimate relationships

Abass spoke about his role as a partner and also as a father, he said:

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"once there is understanding, you married her in order to be with the person you like best, so you don't have to take her as your coequal, it requires brains to do it, you need grace"(Abass, 35). He went on to add:

Funny thing is that the second daughter prefers to be with me more than the mother…so bathing her and all those things, I do it…but by the nature of my job I'm not around much…but anytime I'm around I don't even go anywhere…just that some of the women, they are stubborn and when you talk to them they won't listen. "When she is going for antenatal or whatever I go with her (Abass, 35).

In the two statements above, it seemed Abass in one breath juxtaposed two seemingly contradictory perspectives. He seems to value understanding and love between a couple as a positive attribute and yet he talks about not regarding one's partner as an equal partner in the relationship. In the second statement, he again talks about himself as a doting and hands on father and a supportive husband; bathing his daughter and accompanying his wife for her antenatal checks. However in another breath he describes women as stubborn who will not listen when they are talked to. His admission that he goes to antenatal or "whatever" with her, may in itself signify a masked attempt to control the movements of his wife, as, it emerged later that he seems to even have a problem with his wife spending much time with her mum.

Women's agency in intimate relationships

It emerged during the interview that Abass had a problem with his wife spending a lot of time with her mother. He complains:

Her family is around, just at Gatta [a suburb of Accra]. You people are even lucky she has not even moved there. That is the problem why we have been fighting, she likes going to her family every day (Abass, 35).

His statement led Abiba to retort, "She is my mother, that's why I go there" (Abiba, 27).

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It seems quite logical, after he admitted himself that he was away for considerable lengths of time, that his wife would seek support from her mother who lived close by. However his utterances seem to suggest that when he returned from his trips, he expected his wife to stay at home. She, on the other hand, still wanted to be with her mother more often than with him. Abiba's answer shows her agency in determining where to go and who to see. And although letting her husband take the lead in the interview may have been as a result of cultural mediated behaviours towards husbands, Abiba also had a unique sense of her own agency.

6.6.5 Perspectives on perinatal mental health care

Key informant participants in this study also gave interesting perspectives on the perinatal mental health care situation in Accra which encapsulated; the unmet need for perinatal mental health services in Accra and the need for an integrated and culturally competent perinatal mental health care service.

Unmet need for perinatal mental health services

Key informants were unanimous in their acceptance of the linkage between mental health problems and negative outcomes for the mother and baby. They also admitted that there was an unmet need for perinatal metal health care. According to the TBA:

> Thinking too much is not good… it can affect the baby. You need to have a clear mind, so I advise pregnant women not to be quarrelsome and not to be bitter…it is not good for their health and it can affect their babies too (Maame Dufie, TBA, 60).

From the perspective of the TBA, mental health problems in women which she characterised as "thinking too much" could have negative outcomes on the wellbeing of their babies. She also seemed to imply that having a "clear mind" which implied mental wellbeing was beneficial for women in the perinatal period.

The Psychologist also spoke about the gaps in mental health service delivery. He said:

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Mental illness can negatively affect the baby and even herself, the woman, but the resources are not available to bring these things to the fore. Some patients even prefer the same doctor but in a public hospital there is no time, if you are not ok with that then you go to a private hospital. Mental health is not appreciated (Dan, Psychologist, 35).

It can be gleaned from the psychologists' narration that women's mental health needs are not a priority. He also laments the prevailing culture within public hospitals where women- centred care is lacking.

The midwife also pointed out gaps in the provision of services to cater for women's mental health needs. However she appeared to gloss over them, explaining them away as part of the Ghanaian way of life.

We tell the patients all the time not to be thinking, thinking, thinking… it can affect them…But you know in Ghana there are many things that can make you think, so we just try to encourage them. As for me I know about psychology and I know its use but the system…It's so choked, many people come and it's not easy to sit down with one person to talk about all these things (Mercy, 38).

From the perspective of the midwife, the health system was stifling. She may have been implying the overcrowded and under resourced health care facilities that catered for the health needs of majority of perinatal women in Accra.

The need for an Integrated and culturally competent perinatal mental health service

Key informants in this study recognized the need for an integrated and culturally competent perinatal mental health service. To illustrate the lack of a holistic approach to maternity health care delivery, the Psychologist said:

I was attached to the maternity unit for about two years but the only cases that were referred to me were for bereavement counselling; women who had lost their babies or

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whose wombs had been removed. I never got a referral that a woman was depressed or anxious… There is the need for a policy that will make it mandatory for mental health to be made part of it. Right now, nobody has time, nobody cares (Dan, 35).

According to the Psychologist, there is the need for an integrated perinatal mental health care pathway that will bring maternity services and mental health services working together to safeguard the wellbeing of the women in the perinatal period. He also calls for a policy on perinatal mental health care provision in Ghana which will set out clinical and care guidelines as well as galvanize the needed support and mobilize funds for its operations and training purposes.The midwife also seemed to agree in principle concerning the usefulness of an integrated perinatal mental health service. She said:

We try, the midwives here we work hard, and we have psychologists in the hospital so if anyone has a problem they can go and see them…sometimes we even give some of the women money and other things…but one person cannot do everything (Mercy, 38).

From the perspective of the midwife, although she was largely in agreement, that mental health was important in the wellbeing of women in the perinatal period, she also acknowledged the seeming unsurmountable hurdles of lack of funding, and a lack of will by those in authority to take action. The inactions of health professionals therefore, were as a consequence of the inactions of the powers that be.

The TBA, also, gave interesting insights into the traditional model of care that she employed. When she was asked about the relationship between herself and her patients, she said:

When a woman comes to me I treat her like family…my daughter or sister can also go to someone, so I don't have to do anything bad to that person. I speak to them gently and always encourage them (Maame Dufie, TBA, 60).

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In line with the provision of holistic care that considers the persons psychosocial environment within care, the TBA was asked what her approach to care would be if she had a client who had problems with her intimate partner. She answered:

> When a woman has a problem with her husband, I advise her not to think about it too much. If it doesn't work, I go to the husband and talk to him myself in a bid to get him to change. If that doesn't work, I go and talk to my patient's mother and impress upon her to provide support and encouragement for her daughter (Maame Dufie, TBA, 60).

The TBA seemed to emphasize a more comprehensive model of care, with emphasis not solely on the woman's physical well-being but also on her social and emotional well-being, by an appreciation that all these components are mutually influencing and also affect the health and well-being of the woman in the perinatal period.

6.7 Discussion

This section is based on an exploration of the contextual issues underlying some of the findings from Study Two; to explore the factors underlying the elevated symptoms of common mental disorder symptomatology within the sample, to delve into the role of intimate partner's within the perinatal period, and also to explore the contextual factors relating to perinatal mental health care in Accra. Five main themes emerged (with subthemes): *Conceptions about Childbirth* (subthemes: "Normative views of childbirth" and "critical discourses on childbirth" and "religio-cultural practices after childbirth"), *Explanatory models of CMDs symptomatology (*sub themes: "Past birth experiences", "Experiences during the period of pregnancy", "Experiences during labour" and "Experiences after birth"), *Coping after birth* (subthemes: "Sense of self efficacy", "Spiritual beliefs" and "The use of behavioural distractions"), *Constructions of Intimate Partner relationship* (subthemes: "Male positionality in intimate relationships", "Women's agency in

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intimate relationships"), *Perspectives on perinatal mental health care* (subthemes: "Unmet need for perinatal mental health services" and "The need for an Integrated and culturally competent perinatal mental health service").

The second qualitative study brought out themes relating to conceptions about childbirth, explanatory models of CMDs symptomatology, coping after birth, constructions of Intimate Partner relationship and perspectives on perinatal mental health care

6.7.1 Conceptions about childbirth

Childbirth as discussed in previous chapters of this study is largely a time of joy and celebration. It is looked upon as a time of renewal and hope as it ushers a new member into the family. The community regards pregnancy as a collective responsibility and of collective interest, because of the potential to add to the community's strength, i.e., its number of people. Children born are considered an asset to the family, community or clan and are handled as such; their nurturing and education are communal (Kasomo, 2009). Participants in this study centred on childbirth as a woman responsibility; her duty. This may stem in part from traditional gender roles that assign to women the task of being the bearers and nurturers of children. Childbirth was also conceptualized as being normal, an everyday event occurring in so many households, that there was no need to attach to it, too much fuss and drama.

Yet in another vein, childbirth was considered as a dangerous undertaking, a perilous journey. The climax of it; labour, was couched as a matter of life and death. This reflects traditional perceptions of childbirth, as well as negative evaluations of the formal health care system. According to Dauda (2005), cultural perspectives and attitudes about pregnancy and childbirth have far reaching health implications for the pregnant woman. Mbiti (1975) elucidates certain taboos and societal codes, rules and regulations, that pregnant women are expected to observe, so that all may go well with them and their babies; including the

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wearing of charms to protect the mother and baby from harm. Rattray (1954) advances that the protection of the pregnant woman and her child, before and after it is born, is seen as pertinent and necessary in many traditional Akan settings. This may be because pregnant women and their children are deemed to be particularly susceptible to adverse external influences and effects, against which she must be protected. Such protection may be in the form of talismans, charms and special amulets.

The growth of contemporary charismatic, "new age" and evangelical Christian churches has provided new avenues for many Ghanaian women, who although retain the same traditional view of increased susceptibility to evil forces, seek to counter these not with charms and amulets, but with Christian prayers and worship (Sackey, 2002). In this regard, anecdotal evidence suggests that some women choose to give birth at prayer camps (i.e. residential facilities provided by churches, where people may remain for a time to pray or interact with a particular religious leader) rather than in health services (Omenyo, 2006).

Often times, formal health care also fuels perceptions of pregnancy and childbirth being a dangerous period. Amoh-Agyei (2004) indicates that the reality of imminent motherhood is often met with apprehension due to uncertainties around potential complications in pregnancy and childbirth. It has been estimated that about 99% of deaths from pregnancy and childbirth related causes, are reported in developing countries (WHO, 2016).

Furthermore, as part of conceptions about childbirth, participants mentioned naming ceremonies as one of the vital African rites that offered participants a vital source of social anchoring, emotional solace and help with social adjustments. Participants in this study talked about Naming ceremonies as important because it brought honour to them. It was a day where they took centre stage and where indeed their honoured status was conferred on them. Friends and loved ones came from far and near to pay homage to the baby and also the

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mother. They felt it was all worth it and they were happy. In fact those who did not have this ceremony usually felt shame since they had not been honoured, especially if their partner did not partake in the ceremony. They became the brunt of jokes and it reduced their social status.

According to Asare Opoku (1978) for many West African cultures, birth represents the start of the cycle of life and, it is celebrated with the appropriate ceremony to demonstrate its significance, such as intricate rituals and traditional customary observances. It is termed a naming ceremony due to the fact that the baby is given a name during that ceremony. Some also term it an outdooring ceremony, because it marks the first time the child is shown to the public. There are variations of the naming and outdooring ceremonies among different ethnic groups. For example, the Akans, call it “Abadinto” or “Dzinto”, the Ewes say “Vihehedego”, the Gas call it “Kpodziem” and the Dagaris refer to it as “Sunna”. The actual day for the child naming also varies between communities. For the Akans, it occurs on the eighth day whereas for communities in the Northern and Upper Regions, it is instituted on the 3rd and 4th day for boys and girls respectively.

According to Mbiti (1975), when a woman delivers, rituals for purification, thanksgiving and protection are undertaken. These serve to offer thanks to God for a safe birth, protect the baby as it begins its life journey and bring the child and its family good fortune. A child who dies before the naming ceremony is performed is not considered to have attained “humanness”, and its mother does not achieve the socially-respected status of motherhood, such as the use of a family/clan name (Amuzu, 2015).

Thus, conceptions about childbirth in this study derived from normative views that regard childbirth as every woman’s responsibility and also as a normal event. Participants also described the critical nature of pregnancy and childbirth, also deriving mainly from

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traditional as well as formal health perspectives. Finally, participants spoke about naming ceremonies as inclusive of their conceptions of childbirth within a Ghanaian context.

6.7.2 Explanatory models of CMD symptomatology

Participants in this current study spoke concerning various issues that in their estimation contributed to the elevated symptomatology they experienced. Physical as well as social and economic factors were adduced spanning the phases before pregnancy, during pregnancy, labour and the period after birth. This lends credence to the importance of the biopsychosocial approach to the understanding of perinatal mental health problems. The WHO (1978), defines health as a state of "complete physical, mental and social well-being and not merely the absence of disease or infirmity". In terms of physical conditions being precursors for mental health problems, it seems that there is a greater chance of experiencing physical conditions if one had poor mental health and in the same vein, experiencing mental health problems if one had poor physical health.

According to WHO (2014) chronic diseases produce psychological burdens emanating from issues such as reactions to diagnosis, the fear of longer term decline, difficulties of living with the illness, life expectancy worries, contention with, sometimes, complex therapeutic regimens, required lifestyle alterations, unpleasant symptoms such as pain and stigma, which could lead to loss of social support, guilt, and the disintegration of key relationships. Chronic diseases are accompanied by a number of psychosocial issues that include; decreased quality of life, anxiety, depression and other psychological disorders. Ansara, Cohen, Gallop, Kung and Shei (2005) conducted a study among two hundred women who had given birth in Toronto, and who had vaginal deliveries. They found that perineal pain was associated with episiotomy and one or more maternal complications during birth. These health issues impact women's lives, interfering with their ability to adapt to

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motherhood or to resume work, family, and social roles and responsibilities and contributing to their burden of ill health.

In terms of the social factors that underlie mental health problems, low social support was one of the issues that emerged as antecedents of perinatal mental disorder during the period after birth. This may be influenced by many factors, key among them being, the effect of rapid urbanization on social support systems that were hitherto available to childbearing women. It is not to be taken as a forgone conclusion nowadays, that there will be a supportive mother, auntie or relative available during pregnancy, birth and after birth. In post-independent Ghana, there has been considerable growth of the urban populations due to increased flow of populations from rural to urban areas (Anarfi & Kwankye, 2005). The majority of people migrating internally from the rural North regions of Ghana, to urban centres in the south in Ghana are young females. They work mostly as 'kayayei" (the term given to female head porters) (Awumbila & Ardayfio-Schandorf, 2008). Networks of friends and relations facilitate the movement of many of these female migrants. Contrary to previously held perceptions that the main reason women migrated was to join their partners, changing migration patterns confirm that young women now migrate independently even to areas in which they may have no family (Whitehead et al., 2007). This may account for the inadequate support levels available to women thereby making them more vulnerable to mental health problems.

6.7.3 Coping after birth

A variety of mechanisms were used by women in this study to cope; including a sense of efficacy, spirituality and the use of behavioural distractions. According to Ormrod (2006) a sense of self efficacy is the confidence that an individual has in her abilities to achieve set targets. This confidence is empowering as it affects the choices an individual makes when confronted with a situation. In this current study, participants' sense of self efficacy helped

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them to believe in themselves as being able to handle the challenges that they faced and also led them to choose positive actions in solving problems. In fact, individuals with a high sense of self-efficacy welcome challenges as motivating factors that push them to be better and achieve more (Mpondo, Ruiter, van den Borne & Reddy, 2015).

Indeed, according to Jackson and Mustillo (2001) self-esteem and self-efficacy are linked to better mental health in Black women. Having a sense of efficacy has also been linked to better resilience for women in stressful situations. Resilience has been conceptualised as the interaction of biological, social, environmental and psychological factors that enable an individual to return to a state of optimal mental health in spite of setbacks (Rodin & Stewart, 2012). Unger (2012) also describes resilience as a product of the interactions between individuals and their social environments (ecologies). In the context of exposure to considerable adversity, resilience results from the capability of the person to steer their way through, utilising and meaningfully adapting the social, psychological, physical and cultural resources available to them in order to maintain their well-being.

Furthermore Ungar posits that resilience is not solely an individual trait nor fully determined by the social and/or physical ecologies, but it's a "shared quality of the individual and the individual's social ecology. Applying the concept of resilience to maternal health introduces the concept of maternal resilience, which may be characterised as a woman's capacity to navigate through various environments (e.g. cultural, institutional, political, etc.) as she attempts to negotiate for and access maternal health resources and engage in maternal health behaviours amidst adversity (Baraitser & Noack, 2006). Interactions within each environment, including existing barriers, could serve to enhance or hinder her capacity to progress forward in accessing the resources for her maternal wellbeing. From this current study, some participants exhibited high sense of self efficacy which in turn led them to develop a strong maternal resilience in the face of real life challenges.

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Another coping strategy used by participants involved the use of behavioural distractions. According to Lazarus and Folkman (1984), behavioural distraction is considered a form of emotion-focused coping mechanism that seeks to minimise attention to distressful emotions by focusing on more positive behaviours and thoughts. In this study, participants employed the use of “work” as a behavioural distraction and also focused on the positive emotions and joy that the bond with their children brought to them. By keeping themselves busy, they were able to block to some extent, negative depressive thoughts and ruminations that could have increased levels of distress they experienced. This shift in focus was also rewarding to them in the sense that the work they did, provided to them a steady income which has been found to be a protective factor for perinatal mental health (Fisher et al., 2012). It may have also improved their self-esteem and self-efficacy as they achieved success within their work settings. This may in turn have increased their sense of value and power and also their social status within their communities. Thus, although it was merely, “a shift to work”, it may have contributed far more, in terms of improving overall mental health and wellbeing.

Similarly, a focus on nurturing maternal feelings of attachment may have led to improved bonding between the mother and baby, which in itself has been found to contribute to improved mental health and other positive behavioural outcomes for the baby (Howard, et al., 2014). Positive outcomes in this relationship between mother and baby may also have increased the mother’s sense of accomplishment and her judgements of herself as a good mother, thereby improving her mental health and well-being.

6.7.4 Constructions of intimate partner relationship

According to Inandi et al. (2002) correlates of perinatal mental health perceived as risk factors derive from cultural structures, values and traditions that perpetuate longstanding inequalities against women. The traditional setting in Ghana, including socio-cultural codes

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and practices as well as norms and beliefs create conditions that deprive women of their identity and rights as members of the society. Notably, clinical research into maternal struggles rarely acknowledges the cultural context in which contemporary women experience motherhood. Some historians suggest that in the area that became the Gold Coast and then Ghana, gender relations were complementary, with men and women having different but equal roles in a society where their economic enterprise and independence were valued, and their rights (to property and in relationships) protected (Aidoo, 1985; Arhin, 1983; Hagan, 1983; Sudarkasa, 1986). Thus the unequal relations we see today can be attributed to the interruption of African traditions by colonial ideas and practices.

With colonialism, and the subsequent introduction of western ideology, the old norms that existed soon gave way to a system where women were handed a bad deal with communal structures replaced by political and often liberal administrative structures of the west. This served as the inception of the many barriers and constraints that women faced in the evolution of western-type democracy in Ghana. Others argue that rather than creating gender inequalities, colonisation in British West Africa merely reinforced them (Bakare-Yusuf, 2003). Policies were created that compelled women to fit the prescribed roles and behaviours. In the area of work, for instance, the colonial state largely denied the fact that women of the Gold Coast had always worked outside the home and instead sought to shoehorn women into exclusively domestic roles. According to Ali Mazrui, the woman's value in modern Ghana is invariably driven by the interrelationship between Arabic-Islamic influences, colonial and western missionary activities and traditional African cultures and value systems (Mazrui, 1986). In traditional society, men were the most favoured in terms of the authority structure, with women taught to be content with a subordinate position largely through socialization.

In Ghana, the man is the head of the house and is supposed to be the breadwinner and financier. He is the one to usually give out money for the upkeep of the home (Connell,

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2000). Even if the woman had an income, it is the man who gives money for housekeeping and for cooking, while the woman does the house chores and takes care of the children. (King & Oppong, 2000). However Ghanaian society is changing and with the introduction of more liberal ideas through globalization, Ghanaian men themselves are caught in a dilemma as to the road they should take; stick with traditional categorizations and values or jump on the bandwagon of liberalism and change. The conflicts that characterized the constructions of intimate partner relationship in this study may well be an illustration of this dilemma.

6.7.5 Perspectives on perinatal mental health care

From the account of key informants and participants alike, there are no active frameworks, integrating mental health services within the maternal health care system in Accra. The WHO states that "there is no health without mental health" ("Mental health: strengthening our response", 2016). However, consistently, mental health has been deemed the missing aspect in the consideration of maternal health issues. Mental health issues can lead to increased maternal mortality in mothers through suicide, and also morbidity by compromising both physical and mental health. According to the World Health Organisation Director-General, Dr. Margaret Chan, "The inclusion of non-communicable diseases under the health goal is a historical turning point. Finally these diseases are getting the attention they deserve. Through their 169 interactive and synergistic targets, the SDGs seek to move the world towards greater fairness that leaves no one behind." Leaving no one behind means, paying attention to the people most affected by mental ill health; women (WHO, 2017).

In Ghana, the majority of maternity care (antenatal, intrapartum and postnatal care) is provided by midwives in community polyclinics, and with referral to specialist facilities in case of complications. Back in 2008, maternal mortality was declared a national emergency and the MDG Acceleration Framework Ghana Action Plan was put in place, in order to speed up reforms to improve maternal health. According to a report on the MDG's, the rate of

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institutional maternal mortality in Ghana was 144 per 100,000 live births (UNDP, 2015). Ghana had not met the target of 54 per 100,000 live births, as at the end of the era of the Millennium development goals in 2015.

In the summer of 2012, the University of Cambridge hosted a conference on finding new perspectives to tackle maternal mortality, recognizing the crucial need to address the question of what is going on with global maternal mortality rates, and to begin to address potential solutions (New Approaches to Maternal Mortality in Africa, 2012). Some recommendations included the integration of mental health with maternal health programs. This is not only as important in saving mothers' lives as screening for malaria and treating HIV in pregnant women, but it could also prove essential in improving maternal health and reducing the number of deaths in children under the age of 5.

The claim 'we will know that maternal health has improved in developing countries when mothers stop dying' is an attractive mantra to rally the international development community around. However, maternal mortality only reflects the most extreme outcome of maternal health, ignoring a wider range of maternal health outcomes and potentially relevant factors contributing to the current state of women's maternal health in developing countries. It is thus important that these linkages are highlighted to draw required attention to the importance mental health prevention and treatment strategies have in combating maternal morbidity and mortality in Ghana.

The medical model of care has traditionally been solely interested in the physical wellbeing of the individual. From this current study, it seemed that the traditional model of care was more comprehensive in nature; viewing the individual as related to various other components within the society, with each affecting the other in ever evolving ways. According to Twumasi (1975), the traditional healer sees no differences in conceptualization between biomedical and social factors. Physical, social as well as psychological factors join

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together to form the social causation theory in the explanations of illness. In like manner, no illness is thought to be completely cured until its basic underpinnings, found in the social and economic environment of the individual has been dealt with. In recent times, several appeals have mounted and culminated in a call for culturally competent healthcare and professionals (Herman et al., 2013). This is because given the differences in culture, value systems and worldview, it is not possible for western psychology to effectively appreciate and explain the full gamut of psychological phenomena as it occurs in culturally diverse non-western societies. According to Davis (1997, p. 4) cultural competence is,

> The integration and transformation of knowledge, information, and data about individuals and groups of people into specific clinical standards, skills, service approaches, techniques, and marketing programs that match the individual's culture and increase the quality and appropriateness of mental health care and outcomes.

Attempts have been made to incorporate components of local culture into healthcare intervention in various settings. In terms of content, interventions involving African American girls, youths and adults have incorporated principles of spirituality, harmony, collective responsibility, oral tradition, holistic approach, and interpersonal/communal orientation that are often found in African American worldviews (Belgrave, 2002; Longshore & Grills, 2000). Similarly according to Zane, Aoki, Ho, Huang and Jang (1998), in a preventive intervention program among Asian Americans developed to prevent substance misuse of high-risk Asian youths and their families, cultural competencies focusing on Asian familial values, acculturation issues, and intergenerational communication were incorporated. Parents participated in small-group workshops that also included topics involving cultural values, intergenerational communication, and family. The studies indicate that cultural competency adaptations can range from simply providing ethnic language provisions to introducing multifaceted changes in intervention philosophy, delivery, and format. A number

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of studies have also examined whether cognitive behavioral therapy (CBT) could be culturally adapted. Kohn, Oden, Munoz, Robinson and Leavitt (2002) looked at the degree to which CBT intervention could be adapted in a culturally sensitive manner in depressed low-income African American women experiencing multiple stressors. Examples of ways in which the adaptation was effected included changes in the language used to describe cognitive-behavioral techniques and inclusion of culturally specific content such as African American family issues, in order to better situate the intervention in an African American context. Compared with a non-adapted CBT intervention group, women in the adapted CBT group exhibited a larger drop in depression.

In line with fashioning out an integrative care model, studies have looked into the effectiveness of traditional healers in the treatment of mental health problems in Ghana, Sudan, Uganda, Kenya, and Tanzania (Abbo, 2011; Aniah, 2015; Mbwayo et al., 2013;Ngoma et al., 2003; Sorketti et al., 2013). It has been been found that patients in Africa use parallel health systems in their pathway to health care and that individuals who have mental health problems view their symptoms as caused by a mixture of social and supernatural factors (Monteiro & Balogun, 2014a). Consequently, according to Sorketti (2011), patients either seek treatment simultaneously or firstly from traditional healers. According to Abbo (2011), traditional healers are effective in lessening the effects of psychosocial distress, thus giving more credence to the call for effective partnerships between traditional healers and medical professionals in order to reach more patients.

In Ghanaian culture, the family is recognized as a fundamental and highly prized institution. Family in the African society means the extended family which includes the nuclear family within its ambit. Values which symbolize the concept of family include love, cohesion, solidarity, mutual respect and mutual responsibility. According to Twusmasi (2005) if the traditional healer decides to take on a patient for treatment, the relatives of that

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patient appoint an okyigyinafo (patient's supporter) who will be with the patient throughout his or her stay for treatment. He may also discuss pertinent issues regarding the patient with the medicine man and also pay fees and provide support. No family will ever fail to support a sick relative, for to do so would be a standing reproach to the whole extended family unit. The privileged status of the family in Ghanaian society could be used to the advantage of the woman in the perinatal period by incorporating it within formal care structures. This would enable the provision of adequate, structured and consistent psychosocial support that will in turn yield better mental health outcomes for the woman.

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CHAPTER SEVEN

DISCUSSION

7.1 Introduction

An overview of the entire research work is undertaken in this chapter. Consequently, the major findings of all three studies in this research work (Study One, Study Two and Study, Three) are discussed and linked to the general objectives and theoretical frameworks underpinning this study, as stated in Chapter One. This discussion then tapers into an analysis of the importance of this research within global discourses on perinatal mental health as well as within the Ghanaian setting. This chapter further delves into the implications of the findings of this research work across a variety of contexts. In like manner, a discussion of the recommendations emanating from the findings of the three studies is also undertaken with reference to their general applicability, and also their particular effectiveness within a Ghanaian setting. Limitations of this current research work and directions for future research are also highlighted as this research's contribution to empirical thought and study.

7.2 Summary of findings

The first study (Study 1) of this mixed method study was qualitative in nature, consisting of in depth- interviews with women who were 8-9 months pregnant. Themes that emerged from this study, point to the fact that pregnancy generated a mixed bag of emotions; comprising of both joy and distress. Even though participants expressed joy and delight at the promise of new life, they also complained of pregnancy niggles, in terms of physical discomforts, aches and pains. Participants were also distressed by the financial toll pregnancy had on them. Participants' conceptions about perinatal mental disorders, was characterized largely by a lack of information about the issue, with some participants utilising terms such as: "thinking too much" to capture the distress they experienced. Most participants were

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unaware of perinatal mental health disorders, as an identifiable disorder. However, they expressed symptoms that seemed to fit into formal classifications of what constitute perinatal mental health disorders, such as depressed affect, hopelessness and lack of pleasure. Participants' experiences of pregnancy were multifaceted, and mostly experienced within the spaces of; the individual, the family and the system. Participants went through a lot of emotionally tasking experiences if the pregnancy was unplanned for, if they were unmarried and if their partners had rejected paternity. Within the space of family; relationships, emerged both as risk and protective factors, as various participants expressed how their intimate relationships, relationship with their mother, as well relationships with their mothers- in- law helped or hindered them. Women's experiences of pregnancy within systemic spaces consisted of mostly negative views of health professionals and health services. Finally, participants in this study also spoke of resources such as use of faith and engagement in productive activity as helping them cope with the pregnancy experience.

7.3 Study Two

The second study (Study 2) was a quantitative study which employed a two-wave prospective panel design. It was based on 7 hypotheses with data collected during pregnancy and after birth on the same cohort. The results showed that common mental disorders were significantly related to quality of life both during pregnancy and after birth. It also showed that social support partially moderated the relationship between common mental disorders and quality of life during pregnancy and after birth. In terms of the moderating effect of intimate partner relationship on common mental disorders and quality of life, there were no significant effects both during pregnancy and after birth. The results of study Two also showed no lagged effects in terms of the relationship between common mental disorders during pregnancy and quality of life after birth or the moderating effects of social support and intimate partner relationships on that same relationship.

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7.4 Study Three (3)

The third study (Study 3) was a follow up qualitative study which explored the contextual issues underlying the results of Study 2. Notable themes emerging from this study included conceptions of childbirth which encompassed participant's normative views of childbirth, their critical discourses on childbirth as well as their perspectives on the religio-cultural practices after birth. Participants also offered insightful explanatory models on their elevated CMD symptomatology. These models were categorized as emanating from; past birth experiences, experiences during the period of pregnancy, experiences during labour and experiences after birth. In terms of coping after birth, participants' repertoire included having a sense of self efficacy; which indicated confidence in oneself to achieve a set goal or outcome, and spiritual beliefs as a means of coping. Reliance on the divine provided participants with a sense of security and assurance and contributed to an enhanced perception of mental wellbeing. In addition, participants made use of behavioural distractions such as work, and a focus on the maternal child relationship. Constructions of intimate partner relationship were also explored as a consequence of findings in Study 2; in which "intimate partner relationship" as a construct did not significantly moderate the relationship between CMD's and quality of life either during pregnancy or after birth. In this regard, male positionality, as well as women's agency in intimate relationships emerged as notable findings. Finally, Study 3 explored perspectives on perinatal mental health care in Accra. Findings from this exploration indicated that, there was an unmet need as far as perinatal mental health services were concerned, and highlighted the need for an integrated and culturally competent perinatal mental health service which would better suit the needs of perinatal women in Accra, with a focus on their unique needs.

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7.5 Link between all three studies and the theoretical frameworks underpinning them

7.5.1 Study One

Study 1, largely confirmed the biopsychosocial model of health, which aims at seeing the individual within a broader context and links the internal workings and schema of the individual to the influences outside of the individual. The biopsychosocial approach employs biological, psychological and social forces in explaining disease aetiology. In Study 1, participants conceptualized adverse birth outcomes as a result of "thinking too much", with this "thinking too much" mainly resulting from negative experiences they had encountered. This is in line with the biopsychosocial model which emphasizes the interplay between various factors in the causation of negative mental health outcomes. According to Zhu, Tao, Hao, Sun and Jiang (2010), negative experiences such as lack of intimate partner relationship and lack of support results in stress, which influence birth outcomes through neuroendocrine processes. Negative experiences may also increase stress, leading to a compromised immune system in the mother which leaves her vulnerable to infections that may compromise the health of the mother and result in adverse birth outcomes (Romero, 2001).

7.5.2 Study Two

Study 2, focused on the relationship between symptoms of "thinking too much" as emerged in Study 1, and characterized as CMD's in Study 2, and their relationship with quality of life which was characterized as an effect. Some of the relationships which emerged as intervening variables in Study 1 (intimate partner relationship and social support) were characterized as moderating variables in Study 2. Study 2 showed that CMD'S had a significant relationship with quality of life, confirming the relationships that emerged in Study 1. Social support also partially moderated the relationship between CMD and quality of life during pregnancy and after birth. This partially confirmed the findings in Study 1 that cast relationships as being either protective or risk factors. In terms of intimate partner

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relationship, there were no moderating effects both during pregnancy and afterbirth, also partially confirming findings from Study 1 which characterized intimate partner relationships as both a protective and risk factor. These findings also confirm the International Classification of Functioning, Disability and Health (ICF) expanded to include quality of life model, which characterize disability and functioning as consequences based on the interplay between health problems such as disorders, environmental factors (structures that exists within the societal level) such as attitudes and systems and internal personal factors such as coping style and gender. This model also emphasises the important role of the individuals' subjective experience in measuring the impact of disease. In this study, the health problems; characterised as CMDs, interacted with social support or intimate partner relationship to determine if the individual would have a low or high level of quality of life. Of course, personal factors such as the gender, as has been discussed in this research, do play a huge part in the experiences individuals go through, how society sanctions women's responses and the perceived effects it has on women themselves.

7.5.3 Study Three

In Study 3, the contextual factors underlying the findings in Study 2 were explored. The emergence of a theme on the explanatory models of CMD's from the voices of participants, confirmed findings in Study 1; that experiences especially negative ones did have an effect on the development and course of depressive and anxiety symptomatology. However this study added another dimension to the relationships involved, by bringing out coping mechanisms, conceptions of childbirth, and the constructions of intimate partner relationships within the perinatal period, as intervening in the relationship between experiences and symptoms. This is in line with another key model on which this research is based; the stress-vulnerability model. The stress-vulnerability model seeks to answer the question of; why some people experience perinatal mental health problems as against others

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even though they may be exposed to similar contexts. According to the stress- vulnerability model, mental health problems results from the interplay between basic vulnerabilities (biological vulnerability and acquired vulnerabilities); that increase the negative impact of stressful conditions, environmental stressors; that influence the start and process of mental health problems, and personal and environmental protectors; that act as buffers and in so doing mitigate the impact of stress (Uys & Middleton, 2010). It seems that in this study, the explanatory models that participants gave, were the environmental stressors that influenced the onset of CMDs, while the protective factors were; coping mechanisms after birth, the conceptions of childbirth, and the constructions of intimate partner relationships. Participants may have had a predisposition to developing CMDs through the effect of pregnancy and childbirth hormones as well as a prior predisposition to developing perinatal mental ill health. However, this was difficult to determine in this study, as participants were reluctant to admit previous experience or association with CMDs.

7.5.4 Significance of the study

A major strength of this research is its use of the mixed method design. The in-depth qualitative interviews added depth to the topic under study, by delving into the lived experience of participants. The quantitative aspect was also important in expanding the application of findings. According to Creswell and Plano Clark (2007), it is not possible for qualitative or quantitative methods alone, to yield to a full understanding of a phenomenon, however the combination of both methods allowed flexibility and rigour and helped in getting a more accurate picture of the phenomenon under study. The combination of positivist and phenomenological philosophies and methodological approaches, in a study in perinatal mental health in Accra, made this study unique, resulting in a stronger research design, and more valid and reliable findings. Using a mixed study approach to the study of perinatal

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mental health problems in Accra set this research apart in terms of its methodological input to the area of perinatal mental health, especially in Accra, Ghana.

Another key strength of this research is its use of multiple perspectives. In Study 3, methodological triangulation was utilized in order to enrich the entire study. Different voices added value to each other, thereby explaining the different aspects of the research, as well as leading to a better understanding of the overall research topic. This multiple perspective approach was also useful in explaining the findings of Study 2. This current research is unique in perinatal mental health research in Ghana, as it integrates the voices of key stakeholders; such as key informants and an intimate partner in addition to the voices of the victims themselves, in the research. Input from multiple perspectives increased the possibility for corroboration of observations, as data from one source could be checked against another, making the research rich, robust, comprehensive and well-developed (Altrichter et al., 2008).

The use of the panel design is another significant methodological contribution of this research. What makes this research unique is that, it follows the same cohort across time in order that the dynamics within the cohort as well as its change over time could be studied. Furthermore, according to De Lange et al. (2003), panel designs have the ability to facilitate a more in-depth understanding of causality among variables captured at different time points, unlike cross-sectional designs which are unable to disentangle the causal networks between variables. Thus the panel design yielded a more complete understanding of perinatal mental health problems within Accra.

The three- phased sequential mixed methods design used in this research is another novel methodological design in the study of perinatal mental health problems in Accra. This emerging design is built upon separate but synergistically related research questions (Tashakoori & Teddlie, 2009). It is also iterative in nature and characterized as an evolving

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process with each study building on the previous study, confirming and expanding it. In this research, Study 1 provided the inputs (hypothesis, variables) upon which Study 2 was crafted. Study 2 in turn, sought to test Study 1 results and confirm certain trends. In addition, Study 3 which was developed based on the findings of Study 2; expanded Study 2 findings, with the emergence of the explanatory models underlying CMD symptomatology in participants, and also unearthing the intervening variables in the relationship between experiences of participants and CMD symptomatology, as well as the relationship between CMD symptomatology and quality of life.

In terms of analytical methods, this research chose the Interpretive Phenomenological approach, which is considered a very important addition to this research. The double hermeneutic effect of IPA, takes into consideration researcher reflexivity and subjectivity (Raskin & Robbins, 2010) and helps in ensuring rigour and credibility by making clear, influences that may have affected the process and analyses of the research data. Also, the focus on the experience of the participant facilitated an insider's perspective which led to a greater understanding of experiences of perinatal mental health problems. This in-depth understanding of meaning is relevant in influencing effective and culturally competent interventions.

7.5.5 Contributions of the study

The concept of quality of life is an emerging concept as far as the literature concerning perinatal mental health in Ghana is concerned. Previous research by Bindt et al. (2012) had considered the relationship between depression and anxiety in pregnancy, and disability in Ghana and Côte d'Ivoire. This current research however takes this emerging interest in disease outcomes, beyond disability in specific aspects of the life of the individual, to a focus on the individuals' subjective judgements of their well-being, as influenced by their culture, expectations, value systems and concerns. Based on the knowledge this

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construct affords, areas of individual need can be prioritized and fed into the planning of intervention approaches. Consequently, results of this study has added on to the evidence base on the effects of perinatal mental health problems on the quality of life of women during the perinatal period, and by implication its effects on the society as a whole.

This current research also adds to the global as well as contextual literature on perinatal mental health and birth outcomes. The evidence concerning the effects of mental health problems and their effects on birth outcomes has so far been inconclusive. In Ghana, the literature available largely shows no evidence of associations between mental health problems during the perinatal period and adverse birth outcomes (Bindt et al, 2013;Weobong, Asbroek, Soremekun, Manu, Owusu-Agyei, Prince & Kirkwood, 2014). In the current study, which was the only one among the two cited studies to be conducted in Accra; the capital city, there was a partial support of the relationship between CMD's and adverse birth outcomes, with significant associations found only for anxiety during pregnancy and low birth weight. Adverse birth outcomes are critical indicators of infant survival and health; socially, emotionally and cognitively. Thus these findings add to the existing literature on mental health problems and their relationship to adverse birth outcomes in Ghana and expand the evidence base for effective interventions and future research on these issues.

This current research is ground breaking and expands the scope of perinatal mental health in Accra by incorporating the voice of a partner in its exploration of perinatal mental health issues. The father's functioning as a partner and a support person is central to the lives of the mother and the baby. A father can contribute significantly to their well-being, even under the most difficult circumstances, and support that is not forthcoming represents a significant deficit for the family. According to Draper (2003) the role of the father in modern society is changing from a singular focus on breadwinner responsibilities. These changes according to Shemilt and O'Brien (2003) have created shifts within socioeconomic and

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cultural contexts and redefined the role of the father on many different levels (Draper, 2003). This current study is therefore important in that, it attempts to tap into modern day discourses of male responsibility within intimate relationships, with the aim of broadening the frontiers of perinatal mental health problems, situating it not only within the dominant discourses as being a woman's problem but as a problem for the family which needs to be tackled holistically.

7.5.6 Implications of the study

This research has several important implications for mental health practise in Accra which are discussed subsequently. Principally, the findings on the conceptualizations of perinatal mental health emanating from this research point to a paradigm shift, from a purely biomedical model to a biopsychosocial model of health and illness conceptualisation. The biopsychosocial model is made up of multiple determinants of ill health and wellbeing that go beyond the narrow biomedical perspective of disease. This conceptualisation is lent credence to, by the World Health Organisations' backing of the social determinants of diseases (Thornicroft, 2011; WHO, 2014). African traditional explanatory models of health and illness also thrive on a multidimensional understanding; including social, cultural and spiritual dimensions, and various studies have emphasised the relevance of multidimensional explanatory models for health and disease for African cultures (Monteiro & Wall, 2011; Amuyunzu-Nyamongo, 2013; Akyeampong et al., 2015). The World Health Organization defines mental health as: "a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community" (WHO, 2014, para. 1). However in Africa, there seems to be a disconnect between how patients interpret their symptoms versus what the biomedical model espouses as a formal diagnosis. In fact Monteiro (2015) calls for an extension of the biopsychosocial model to include socio-cultural-spiritual

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components. An important benefit of grafting the socio-cultural-spiritual dimensions onto the biopsychosocial model is that it provides a broad platform for locally informed perinatal mental health care, by stepping up engagement between the medical and traditional based intervention systems, leading to greater effectiveness and coverage. A cue can be taken from the patient care model employed by the traditional birth attendant in this study; who involved family members of pregnant women in their care, in order to facilitate prompt solutions to problems and afford the woman adequate support in this vulnerable period. A prime area for future research, will be to ascertain how well perinatal mental health problems in Africa may be conceptualised using this approach. It is anticipated that this engagement, will affirm a holistic and culturally competent approach to perinatal mental health care in Accra, Ghana.

This study also has important implications not only for conceptualisation and integration of traditional and biomedical factors but also for intervention and treatment. From this research, several factors emerged that intervened between experiences of participants and the development of CMDs. For instance, religio-cultural practices such as naming ceremonies, spiritual beliefs and work, were all of major importance in the lives of participants. Consequently, indigenous socio-cultural-spiritual norms and values can be harnessed in the development of culturally appropriate perinatal mental health interventions. For instance, inclusion of the family in health care provision, the use of rituals that encourage group togetherness and cohesion, as well as culturally rooted models of ill health that garner and reinforce community care and support, may be incorporated into treatment regimens, in order to facilitate compliance and foster positive outcomes.

The strong indication of depression and anxiety within this sample, although with limited generalizability, revamps the call for the development of early detection mechanisms for perinatal mental health problems within antenatal settings through screening for mental health problems during maternity visits. Despite the evidence that perinatal mental health

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problems occur two to three times more in low middle income countries than in high income countries, there is neither routine screening nor treatment for mental health problems in Accra (Fisher et al. 2012). Antenatal care, as occurs in other parts of Africa, is focused on physical examinations while postpartum care is focused on the health of the infant; immunization and growth monitoring (Openshaw, Bomela, Pretlove, 2011). There is consequently a lack of integration between maternal health and mental health services in primary care settings, creating a treatment gap in the process. In cases where a woman is referred to a mental health service, she would have to bear the burden of additional costs in fees and transportation, as well as inconveniences in childcare and loss of prospective income. These result in poor mental health uptake and less value of the health care system, leading to worsening conditions and negative effects on mother, baby and society as a whole. The integration of services and also the implementation of screening for mental health problems within primary care is therefore of critical importance to the mental health and quality of life of women in Accra.

7.5.7 Limitations of the Study

The study is not without limitations. One limitation that may have had an effect on the validity of this research is panel conditioning. This is the case when prior responses alter later responses of the same respondents, hence, either the way in which participants report experiences, attitudes or behaviours may change (Lynn, 2009). Conditioning is common in situations in which the same questions from the first wave are posed to the same participants in the second wave. To curb this problem, the purpose and importance of the research was explained to participants in great detail and they were implored to answer questions as candidly as they could in order to make the results of the research trustworthy and applicable in solving the real problems that women face.

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Similarly, the lack of a large sample size in this research limited the statistical analyses that could be applied and the generalizability of the results. However the attention paid by the researcher to getting a representative sample may have ensured that this did not have adverse effects on the results obtained from the study. The use of a hierarchical regression model analysis is considered a good analysis method for panel data analysis (De Lange et al., 2003) and the study therefore lost very little in terms of application of adequate statistical analyses.

In addition, the use of just one joint couple interview could be characterized as a limitation due to the fact that more of such dyads could have contributed new perspectives on the role of intimate partners within the perinatal period. Since this methodological addition is fairly new in perinatal mental health research in Ghana, it is envisaged, that future research in this area will build on the notable additions of this qualitative method to this research, thereby further expanding the scope of perinatal mental health in Ghana.

Another limitation of this research was the use of measures developed in Western countries to collect data on local samples. Although they have been validated in African settings and show good psychometric properties, there have been arguments against the effectiveness of such measures in contexts other than those for which they were originally intended (Hanlon, 2008; Tomlinson, Swartz, Kruger, & Gureje, 2007; Ventevogel, Jordans, Reis, & de Jong, 2013). Although these arguments do not make using these measures invalid, they raise issues of conceptual equivalency and universality of mental ill health constructs across cultures. It is hoped that going forward, more locally developed and validated instruments will be applied in the study of perinatal mental health problems, in order to capture the various conceptualizations and complexity of the problem, as it manifests in local populations and also to inform culturally competent interventions in its prevention and treatment.

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7.5.8 Recommendations

7.5.8.1 Recommendations for government:

The need for a perinatal mental health policy

Findings from key stakeholders, as well as in-depth interviews in this current research showed that Ghana has no comprehensive policy on perinatal mental health. The high rates of depression and anxiety from this current research are evidence that perinatal mental health problems do exist among women in Accra. Although these findings may not be generalizable to the whole of Ghana, it builds the evidence base, together with research that has been done in other parts of Ghana that this problem exists, and efforts must be put in place to tackle it adequately. According to, Amuyunzu-Nyamongo (2013) mental disorders account for five percent of the total burden of disease and 19 percent of all disability in Africa. This notwithstanding, the Mental Health Gap Action Programme (2008) estimates that there is a treatment gap of between 76% and 99% of people with mental health problems in Africa and the WHO put Ghana's treatment gap to be 98% (WHO, Country Summary Series, 2007). These statistics have negative implications for productivity and mental as well as physical health (Becker & Kleinman, 2013; WHO, 2003). The impact of these conditions is felt on a daily basis especially with women, who are already a vulnerable part of the population.

As highlighted by the Psychologist in this study, Ghana does not have a clear policy on perinatal mental health, hence there are no prevention, referral or treatment guidelines, leaving this crucial function to whoever deems it fit to do. As occurs in other parts of Africa, most mental health policies are either non-existent, impractical or not being implemented, leaving wide sections of the population outside of care. Prioritising mental health through policy is therefore important to improving patient care at multiple levels, and also to bridge

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gaps in treatment provision, with a focus on galvanising action on comprehensive and integrated care for women with perinatal mental health problems (Jacob et al., 2007).

Findings from a survey on the Ghana Ministry of health, Roberts et al. (2013) shows that Ghana has a mental health policy, which contains policies on developing community mental health services and policies on equal access to health service and their management among others. Also Ghana has in place a mental health plan which was revised in 2007 into the '2007-2011 Mental Health Strategy'. It was composed of specific goals, budgets and timeframe for implementation (Roberts et al., 2013). Moreover, in terms of legislation, there exists the "Mental Health Act" which came into effect in December 2012, providing for the integration as well as regulation of spiritual and traditional mental health practices in Ghana. It also advocates the decentralization of mental health care from institutional to community health care. Within all these however, there is yet no policy on perinatal mental health care. There is therefore the need for a rigorously applied and regularly updated policy, to direct the care of women in the perinatal period in Ghana. This will ensure that clear referral pathways, standards of care and protocols as well as implementation strategies are synchronized with the purpose of reducing stigma, raising awareness and bridging the treatment gap of perinatal mental health problems in Accra.

The need for increased research

According to Saxena et al. (2007) one of the major hindrances to mental health policy development in Africa is that majority of the policymakers are unconvinced of the negative economic impact of mental health problems. However the positive associations of CMDs and low quality of life shown in this research ought to buttress the call for a renewed focus on research into issues of perinatal mental health issues in Ghana. The Kintampo Project (2013), shows that mental health research makes up only 1% of all health publications from Ghana. This is woefully inadequate considering the enormity of the problem and its implications for

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health and productivity. Similarly, Fisher et al. (2012) in their study on the prevalence of CMDs in low and lower middle income countries, show that data on the prevalence of common mental disorders during the antenatal period was available from only 9 out of 112 low- and lower-middle-income countries. In addition, rates on CMDs during the postnatal period were available for only 17 out of 112 low- and lower-middle-income countries. This points to a shortfall in research and consequently in the evidence base that will feed into better policies and strategies for perinatal health care improvement. It is recommended therefore that more research is encouraged within this field, to generate empirical and context specific conclusions that can be translated into effective interventions for women and children in Accra, Ghana.

The need for funding

There is low funding of perinatal mental health services as adduced from interviews with key stakeholders as well as in-depth interview participants in this research. According to the Kintampo Project (2013), the percentage of Ghana's health budget spent on mental health was 1.4%. This is a familiar story across Africa, where according to Daar et al. (2014) most countries spend less than 1% on mental health. These statistics are not encouraging when viewed against the negative effects of mental health both on life expectancy and productivity in general. Ghana currently has only 3 psychiatric hospitals serving a population of over 20 million people. According to the Kintampo Project (2013) in their study on mental health systems in Ghana, 54% of patients who attended these psychiatric facilities were female and there were no services exclusively for children and adolescents, although 14% of such were treated. Also in terms of General hospitals and clinic-based psychiatric inpatient units, which are seven in number, it emerged that females comprised 47% of admissions with no dedicated children and adolescent wards. These statistics on the number of women and children accessing these facilities make the establishment of mother and baby units of key importance.

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Mother and baby units are specialists facilities dedicated to women with perinatal mental health problems, and where a woman admitted may bring her baby as well, so as not to break the developing bond between them. In these facilities, the mother has access to specialist mental health professionals, is away from the usual stressors she encounters at home, and also has child care practitioners to give information, care for one's baby and help the mother and baby to maintain routines. This has been a great success in other countries and will be an important addition to the perinatal mental health care in Ghana. It is therefore recommended that the government increase spending in mental health care and especially, within perinatal mental health services to decrease mortality and morbidity and increase health and wellbeing among this significant chunk of the population.

The need for training

Findings from key informants as well as in-depth interviews in this current research indicate an inadequate level of manpower to tackle mental health issues within maternity care. Mental health professional's uptake into the Ghana Health Service is low and there are little to no trained perinatal mental health specialists within maternity service provision in Accra, Ghana. According to the WHO Mental Health Atlas (WHO, 2011), generally, the number of psychologists in Africa is low. Low pay rates lead to low motivation among professionals working with people with mental health problems which results in an inability to attract the skilled manpower needed (Monteiro et al., 2014). Within universities in Accra, and Ghana in general, there are no courses specialising in perinatal mental health. It has become pertinent therefore for proper training programmes to be established, to enable the upskilling of already trained psychologists and psychiatrists to cater for the mental health needs of pregnant women as well as those in the early periods after birth. In addition to the training of specialists in perinatal mental health care, it is recommended that through the process of task shifting, paraprofessionals are trained to enable them attend to the mental

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health needs of women at first contact. Approaches such as the stepped-care model which focuses on the integration of mental care into antenatal care has been experimented in south Africa and found to be effective (Honikman et al, 2012). Since majority of women in urban settings are more likely to access antenatal care, nurses and midwives who are trained in the detection of perinatal mental health problems could serve as a first point of call for onward referral, and this would go a long way to speed up access to requisite care for those who need them.

Also in terms of inadequate training, an assessment of the percentage of health training devoted to mental health within Ghana, found that medical students had 3% of their course devoted to mental health, nurses had 10 %, while community workers trained at the college of health and wellbeing at Kintampo had 14% (Kintampo Project, 2013). However, it is recommended, that all health professionals who come into contact with women during the perinatal period be trained in the detection and referral pathways of perinatal mental health problems and their care (NICE, 2014). This would enable faster detection and better outcomes as far as perinatal mental health problems are concerned. Similarly, community mental health workers could be trained in basic detection and screening mechanisms so that they could identify individuals within the community who do not access formal health care.

7.5.8.2Recommendations for health professionals

During Pregnancy

This current study recommends, based on its findings that a woman's emotional health be inquired about at her first antenatal booking and also after birth. This will prevent symptoms from worsening and having even more negative effects on the woman's health and wellbeing. This recommendation is in line with The National Institute for Health and Care Excellence NICE (2014) guidelines for antenatal and postnatal mental health care, which also

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recommends that after the initial check, a woman's mental wellbeing must be assessed at each subsequent visit.

The NICE guidelines on antenatal and postnatal guidelines on antenatal and postnatal mental health (NICE, 2014) also proposes that a woman's mental health history must be properly investigated. Another area that needs to be thoroughly is her social history, including, her employment history and a history of domestic violence. The current research highlights several psychosocial factors that influence CMD symptomatology, including social support, intimate partner relationship, coping resources such as spirituality, and work, and conceptualisation of childbirth among others. This implies the need for effective psychosocial assessment in order to identify both the risk and protective factors critical to implementing effective intervention strategies. It is encouraged that this assessment, not only be done as a tick box exercise, but must be engaging, respectful and sensitive, with due regard paid to the woman's age, cultural orientations as well as other values she may feel strongly about. It must also be done in a private place where the woman can feel free to express herself, without fear of being overheard especially in settings with a lot of stigma attached to issues of mental health.

Similarly, it is recommended that women who are deemed to require specialist services be referred appropriately, with further assessment for treatment taking place within 2 weeks of referral, and all psychological interventions started within one month of assessment (NICE, 2014). It is critical to ensure that health professionals working with women during the perinatal period are aware of these referral pathways in order for women to receive the care they need. It is also critical that women get the mental health care they require early, because even if mothers do recover later, harm may already have been caused to the baby due to its inability to bond with the mother, leading to wide ranging problems in later life (Oates, 2005). Specialist services may include referral to a perinatal mental health service team

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including; perinatal psychiatrists, perinatal psychologists, perinatal psychiatric nurses among others. A mother may also be referred to a mother and baby unit if she needs to be on admission. These specialist perinatal mental health services are specially set up to cater for the mental health needs of women who have such problems and they have the requisite skills, in terms of the knowledge of different treatment approaches, the pros and cons of medication during pregnancy, as well as being able to take care of the mental health needs of women as well as their babies.

It is further recommended that information between various services is well coordinated to ensure a smooth transition between the midwife, neonatal care and postnatal care services. Services must be planned around the woman, and there must be proper coordination, so that a history of mental health problems during pregnancy or a traumatic pregnancy or birth is made known to postnatal mental health care services such as community mental health workers. All professionals working with the woman during the perinatal period must consider it a shared responsibility to protect her mental health. Consequently, there should be better coordination between primary and secondary care, ensuring that women who are vulnerable to mental health problems during the perinatal period catch the attention of maternity services to enable prompt treatment.

In line with providing adequate and effective perinatal mental health care services, it is again recommended, that there should be continuity of carer; where a woman is able to have continuity of care with a health professional, for example a midwife, whom she feels comfortable with. This will aid a great deal in enabling her have a trusting relationship with someone she can confide in and enable early and prompt detection, treatment and care.

Similarly, it is recommended that all labour wards have a mental health lead working with a perinatal mental health specialist, midwife and also an obstetrician in a team. This

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mental health lead will be able to administer quick assessments after birth to ascertain the woman's mental health. It is also recommended that all women who have traumatic births be seen to, and proper assessment carried out prior to discharge, with information provided on appropriate referral services if need be.

In addition, it is also recommended, that adequate social support be made available to women who give birth in public hospitals, by allowing into the labour ward a person who is chosen by the woman as being best able to provide her emotional support. It may be a partner, a mother or friend. The qualification being that it will lead to better outcomes and positive wellbeing for the mother. This is against the grain of what happens currently in most public health facilities in Accra, where no support person is allowed in with the woman during birth. This lack of support coupled with, in some instances, an uncaring nurse and disrespectful treatment, may contribute to negative labour experiences for a woman resulting in negative effects on her mental health and wellbeing after birth.

After childbirth

It is recommended that routinely, following a significant physical or mental health challenge during the perinatal period, as well as especially following a traumatic birth or stillbirth, that both the woman and her partner together become the unit of intervention. Research has shown that women with perinatal mental health problems are more likely to have partners with perinatal mental health problems also. It has been shown that about 5-10% of men experience clinical depression during the perinatal period,while 5-15% are affected by anxiety disorders (Leach et al., 2016; Paulson, Keefe, & Leiferman, 2009). Perinatal mental health services should therefore consider exploring avenues to extend help to partners, who are themselves experiencing mental health challenges, and to draw them in, as part of the process. Treatment modalities such as couple's therapy should be considered in line with meeting the mental health needs of the whole family, and providing care at multiple levels.

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According to Chang et al. (2007), better mental health outcomes for fathers imply better health outcomes for children even if mothers face mental health challenges. Currently, the area of postnatal depression with fathers is vague and calls for more research (Edhborg et al, 2015).

Finally based on findings from the current research about a mother's struggle with breastfeeding and its impact on her mental health, it is recommended that difficulties with breastfeeding be considered seriously by perinatal mental health services, as it can have ramifications on the mental health of new mothers. Perinatal mental health support services should connect with breastfeeding support services, by way of breastfeeding drop-ins and other interventions. Support groups could be also be set up to provide access to information on new techniques as well as raise awareness of perinatal mental health services.

7.5.9 Conclusion

The current research was carried out with specific objectives in mind. The first of these objectives was to explore women's experiences during the perinatal period and their perceptions of perinatal mental health problems in Accra. In this regard, the first qualitative study showed that pregnancy is a mixed bag of positive and negative experiences for participants. The findings from this study also showed that participants conceptualized perinatal mental health problems as "thinking too much" with participants having low awareness of perinatal mental health problems as constituting a formal diagnosis. However, participants experienced symptoms that fit into some aspects of formal definitions of perinatal mental disorder; such as contained within the DSM V and ICD -10 classifications, albeit sometimes attributing causes for their symptoms to spiritual causes. This reinforced the need for the incorporation of sociocultural and spiritual dimensions into theoretical frameworks such as the biopsychosocial model, in order to develop a multidimensional

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approach to the development of detection, treatment and care protocols, better suited to local needs.

Another objective of this study was to investigate the quality of life in women who experience common perinatal mental health problems within Accra, as well as to identify factors that moderate the relationship between common perinatal mental health problems and quality of life. In furtherance of these objectives, a prospective panel study (Study Two) was carried out which followed a cohort of women who were 8-9 months pregnant until they were 6-12 weeks after birth. Results from Study Two, indicated that there was a significant relationship between CMD's and quality of life both during pregnancy and after birth. These findings point to the debilitating effects of CMD's on individuals' subjective appraisal of their position in life within their culture and expectations.The findings also call for a multi sectorial approach to help mitigate these effects on the lives of women and the society as a collective.

Similarly, another core objective of this research was to investigate the birth outcomes of women who experience common perinatal mental health problems. This objective was investigated in Study 2, where findings indicated a partial significant relationship between CMDs and adverse birth outcomes. Generally the cumulated evidence on the relationship between CMD's and adverse birth outcomes is inconclusive and it is therefore recommended that future studies continue to look into these relationships in order to generate an expanded evidence base for intervention.

This study also had objectives to explore the contextual issues underlying perinatal mental health problems among participants and also to explore perceptions on perinatal mental health care services in Accra. Findings from the follow up qualitative study (Study Three) showed that various explanatory models accounted for CMD symptomatology. Also participants used various resources anchored within their sociocultural contexts, to cope

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with CMD symptomatology. Additionally it emerged that traditional models of care could be relevant in fashioning holistic and culturally competent perinatal mental health services in Accra. This lends credence to the movement for the formulation of treatment and care approaches that are contextually relevant.

Taken as a whole, this research has adduced compelling reasons for a greater interest in perinatal mental health within the Ghanaian context. It has highlighted the fact that perinatal mental health problems exist among women in Accra, and that it has adverse outcomes for the quality of life of women both during pregnancy and after birth, as well as having adverse effects on birth outcomes in terms of birth weight. Nevertheless, it also emerged that there are a range of sociocultural variables that could serves as buffers in the relationship between adverse life experiences and the development of common perinatal mental health problems, as well as between common perinatal mental health problems and their effect on quality of life. It is therefore imperative that due consideration is given to the setting up of culturally sensitive and integrated perinatal mental health services in Accra, which would increase the quality and appropriateness of care as well as ensure better outcomes for women in the perinatal period.

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APPENDICES

APPENDIX A: QUESTIONNAIRES

Sociodemographic Questions

First of all please tell us a little bit about yourself, so we know more about the people who are participating.

General Information about You: Please fill in the following information about yourself.

1. Your age (years)........................

Single ☐ Married ☐ In a relationship ☐ Divorced ☐ Separated ☐

2. Educational Level Primary ☐ JSS ☐ SSS ☐ Tertiary ☐

2. Religion: Traditional [ ] Christianity [ ] Islamic [ ] others, please specify……………….
3. How many children do you have?......................
4. Your occupation (or most recent occupation).............................
5. Please tick the one that best applies to you: a. Pregnant b. delivered
6. If Pregnant please state the week in which you are…………….
7. If delivered, how many weeks since…………………………….
8. Have you ever been diagnosed with any mental health problems in the past

   Yes ☐ No ☐

9. If yes, please state when was this................................and describe the problem

Multidimensional Scale of Social Support (Zimet, Dahlem, Zimet & Farley, 1988)

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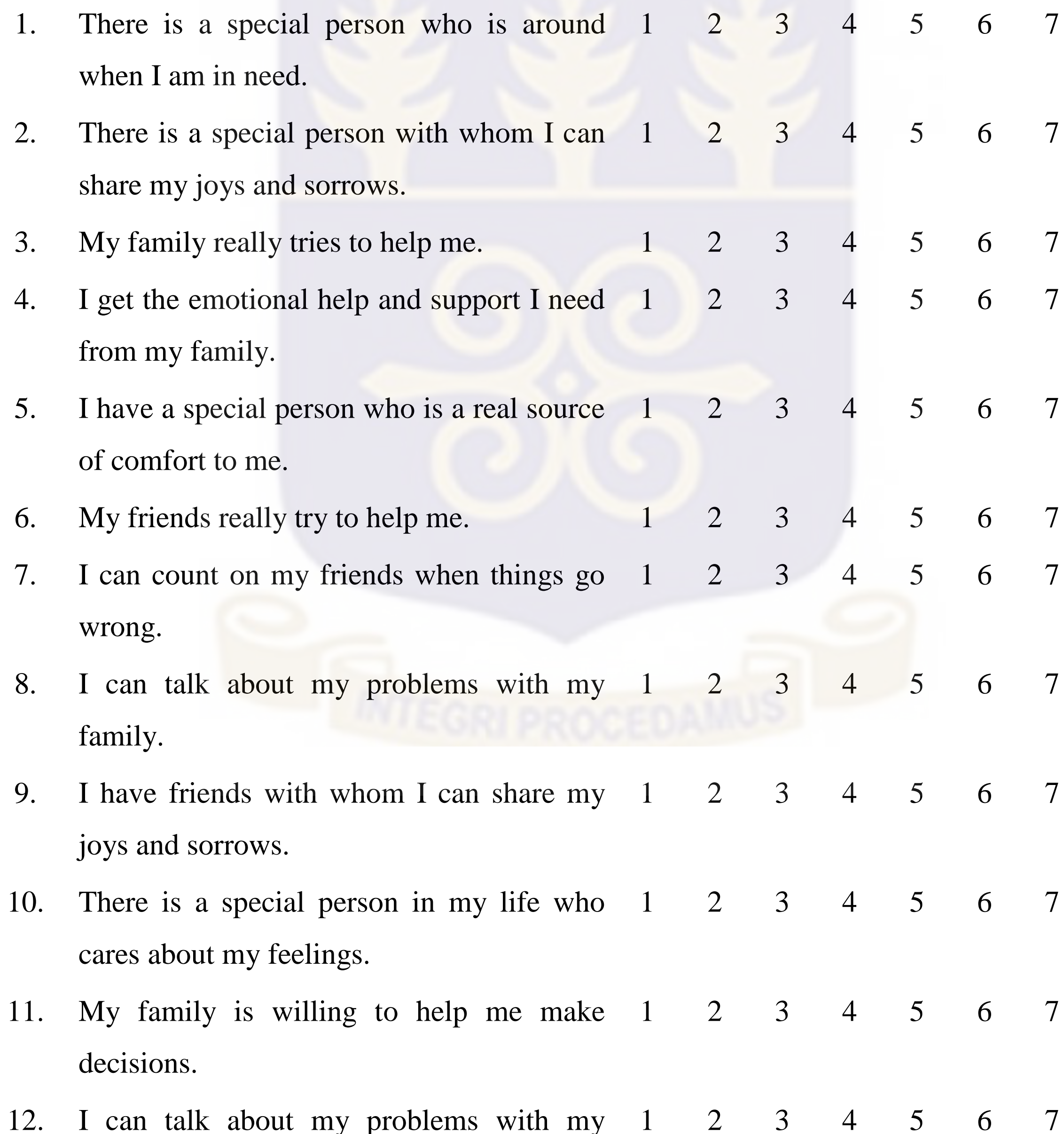
Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.

Circle the "1" if you **Very Strongly Disagree**
Circle the "2" if you **Strongly Disagree**
Circle the "3" if you **Mildly Disagree**
Circle the "4" if you are **Neutral**
Circle the "5" if you **Mildly Agree**
Circle the "6" if you **Strongly Agree**
Circle the "7" if you **Very Strongly Agree**



1.	There is a special person who is around when I am in need.	1	2	3	4	5	6	7
2.	There is a special person with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
3.	My family really tries to help me.	1	2	3	4	5	6	7
4.	I get the emotional help and support I need from my family.	1	2	3	4	5	6	7
5.	I have a special person who is a real source of comfort to me.	1	2	3	4	5	6	7
6.	My friends really try to help me.	1	2	3	4	5	6	7
7.	I can count on my friends when things go wrong.	1	2	3	4	5	6	7
8.	I can talk about my problems with my family.	1	2	3	4	5	6	7
9.	I have friends with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
10.	There is a special person in my life who cares about my feelings.	1	2	3	4	5	6	7
11.	My family is willing to help me make decisions.	1	2	3	4	5	6	7
12.	I can talk about my problems with my	1	2	3	4	5	6	7

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friends.

The Edinburgh Postnatal Depression Scale (Cox, Holden, & Sagovsky, 1987)

Instructions: Please select the answer which comes closest to how you have felt **in the past 7 days** – not just how you feel today.

Here is an example, already completed:

I have felt happy:

a. Yes, all the time
b. Yes, most of the time
c. No, not very often
d. No, not at all

This would mean "I have felt happy most of the time during the past week."

In the past 7 days:

1. I have been able to laugh and see the funny side of things –

a. As much as I always could
b. Not quite so much now
c. Definitely not so much now
d. Not at all

2. I have looked forward with enjoyment to things –

a. As much as I ever did
b. Rather less than I used to
c. Definitely less than I used to
d. Hardly at all

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3. I have blamed myself unnecessarily when things went wrong –

a. Yes, most of the time

b. Yes, some of the time

c. Not very often

d. No, never

4. I have been anxious or worried for no good reason –

a. No, not at all

b. Hardly ever

c. Yes, sometimes

d. Yes, very often

5. I have felt scared or panicky for no good reason –

a. Yes, quite a lot

b. Yes, sometimes

c. No, not much

d. No, not at all

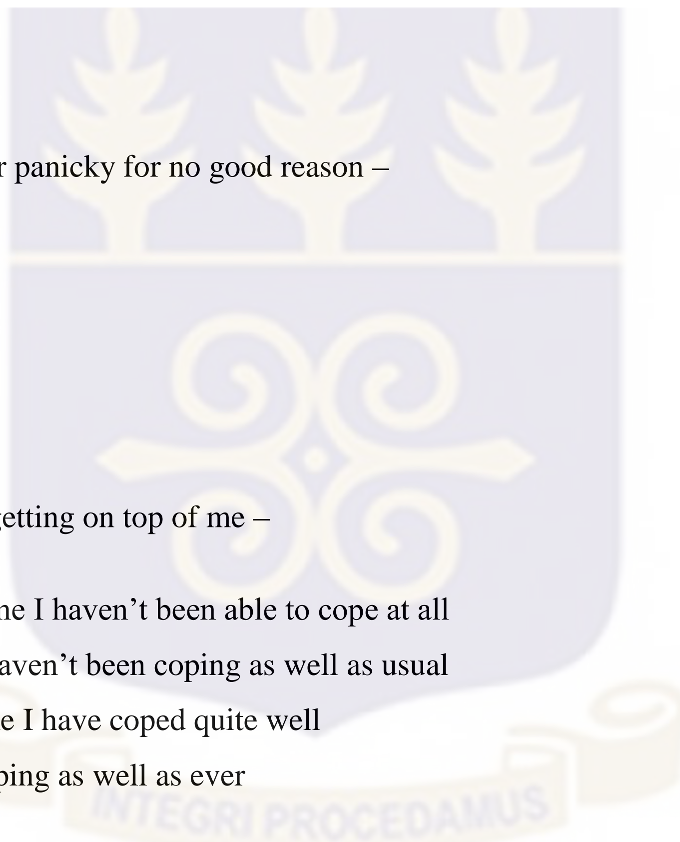
6. Things have been getting on top of me –

a. Yes, most of the time I haven't been able to cope at all

b. Yes, sometimes I haven't been coping as well as usual

c. No, most of the time I have coped quite well

d. No, I have been coping as well as ever



7. I have been so unhappy that I have had difficulty sleeping –

a. Yes, most of the time

b. Yes, some of the time

c. Not very often

d. No, not at all

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8. I have felt sad or miserable –

a. Yes, most of the time

b. Yes, some of the time

c. Not very often

d. No, not at all

9. I have been so unhappy that I have been crying –

a. Yes, most of the time

b. Yes, quite often

c. Only occasionally

d. No, never

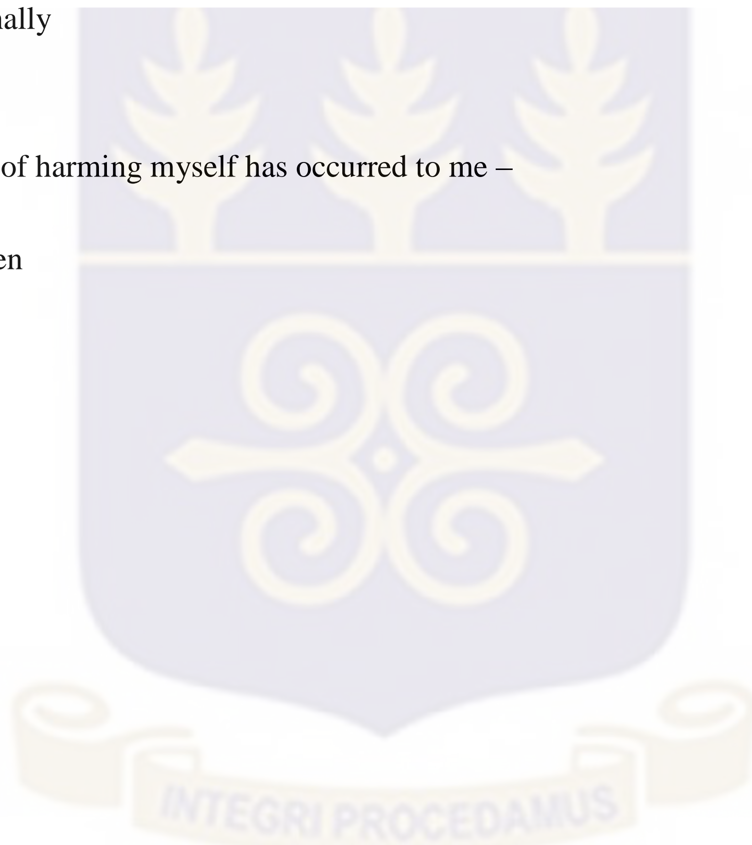
10. The thought of harming myself has occurred to me –

a. Yes, quite often

b. Sometimes

c. Hardly ever

d. Never



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Depression Anxiety Stress Scale (DASS-21) (Lovibond & Lovibond, 1995)

Please read each statement and circle a number 0, 1, 2 or 3 that indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0 Did not apply to me at all
1 Applied to me to some degree, or some of the time
2 Applied to me to a considerable degree, or a good part of time
3 Applied to me very much, or most of the time

1	I found it hard to wind down	0	1	2	3
2	I was aware of dryness of my mouth	0	1	2	3
3	I couldn't seem to experience any positive feeling at all	0	1	2	3
4	I experienced breathing difficulty (eg, excessively rapid breathing, breathlessness in the absence of physical exertion)	0	1	2	3
5	I found it difficult to work up the initiative to do things	0	1	2	3
6	I tended to over-react to situations	0	1	2	3
7	I experienced trembling (eg, in the hands)	0	1	2	3
8	I felt that I was using a lot of nervous energy	0	1	2	3
9	I was worried about situations in which I might panic and make a fool of myself	0	1	2	3
10	I felt that I had nothing to look forward to	0	1	2	3
11	I found myself getting agitated	0	1	2	3
12	I found it difficult to relax	0	1	2	3
13	I felt down-hearted and blue	0	1	2	3
14	I was intolerant of anything that kept me from getting on with	0	1	2	3

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	what I was doing				
15	I felt I was close to panic	0	1	2	3
16	I was unable to become enthusiastic about anything	0	1	2	3
17	I felt I wasn't worth much as a person	0	1	2	3
18	I felt that I was rather touchy	0	1	2	3
19	I was aware of the action of my heart in the absence of physical exertion (eg, sense of heart rate increase, heart missing a beat)	0	1	2	3
20	I felt scared without any good reason	0	1	2	3
21	I felt that life was meaningless	0	1	2	3

The Intimate Bond Measure (IBM) (Wilhelm & Parker, 1988)

This questionnaire lists some attitudes and behaviours which people reveal in their close relationships. Please judge your partner's attitudes and behaviour towards you in recent times and tick the most appropriate box for each item.

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		very true	moderately true	some-what true	not at all true
1.	is very considerate of me	3	2	1	0
2.	wants me to take his/her side in an argument	3	2	1	0
3.	wants to know exactly what I'm doing & where I am	3	2	1	0
4.	is a good companion	3	2	1	0
5.	is affectionate to me	3	2	1	0
6.	is clearly hurt if I don't accept his/her views	3	2	1	0
7.	tends to try to change me	3	2	1	0
8.	confides closely in me	3	2	1	0
9.	tends to criticize me over small issues	3	2	1	0
10.	understands my problems and worries	3	2	1	0
11.	tends to order me about	3	2	1	0
12.	insists I do exactly as I'm told	3	2	1	0
13.	is physically gentle and considerate	3	2	1	0
14.	makes me feel needed	3	2	1	0
15.	wants me to change in small ways	3	2	1	0
16.	is very loving to me	3	2	1	0
17.	seeks to dominate me	3	2	1	0
18.	is fun to be with	3	2	1	0
19.	wants to change me in big ways	3	2	1	0
20.	tends to control everything I do	3	2	1	0
21.	shows his/her appreciation of me	3	2	1	0
22.	is critical of me in private	3	2	1	0
23.	is gentle and kind to me	3	2	1	0
24.	speaks to me in a warm and friendly voice	3	2	1	0

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World Health Organization Quality of Life (WHOQOL–BREF) (WHOQOL GROUP, 1998)

The following questions ask how you feel about your quality of life. I will read out each question to you, along with the response options. Please choose the answer that appears most appropriate. If you are unsure about which response to give to a question, the first response you think of is often the best one (The numbers after responses indicates the scores of the responses).

Please keep in mind your standards, hopes, pleasures and concerns. We ask that you think about your life in the last four weeks (The overall quality of life and general health facet).

1. How would you rate your quality of life?

Very poor	Poor	Neither poor nor good	Good	Very good

2. How satisfied are you with your health?

Very dissatisfied	Dissatisfied	Neither satisfied nor dissatisfied	Satisfied	Very satisfied

The following questions ask about how much you have experienced certain things in the last four weeks on the scale:

Not at all: 5; A little: 4; A moderate amount: 3; Very much: 2; An extreme amount: 1

3. To what extent do you feel that physical pain prevents you from doing what you need to do?	1	2	3	4	5
4. How much do you need any medical treatment to function in your daily life?	1	2	3	4	5
5. How much do you enjoy life?	1	2	3	4	5
6. To what extent do you feel your life to be meaningful?	1	2	3	4	5
7. How well are you able to concentrate?	1	2	3	4	5

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8. How safe do you feel in your daily life?	1	2	3	4	5
9. How healthy is your physical environment?	1	2	3	4	5

The following questions ask about how completely you experience or were able to do certain things in the last four weeks on the scale:

Not at all: 1; A little: 2; Moderately: 3; Mostly: 4; Completely: 5

10. Do you have enough energy for everyday life?	1	2	3	4	5
11. Are you able to accept your bodily appearance?	1	2	3	4	5
12. Have you enough money to meet your needs?	1	2	3	4	5
13. How available to you is the information that you need in your day-to-day life?	1	2	3	4	5
14. To what extent do you have the opportunity for leisure activities?	1	2	3	4	5
15. How well are you able to get around?	1	2	3	4	5
16. How satisfied are you with your sleep?	1	2	3	4	5

The following questions ask about how satisfied you are about various aspects of your life in the past four weeks on the scale:

Very dissatisfied: 1; Dissatisfied: 2; Neither satisfied nor dissatisfied: 3; Satisfied: 4; Very satisfied: 5

17. How satisfied are you with your ability to perform your daily living activities?	1	2	3	4	5
18. How satisfied are you with your capacity for work?	1	2	3	4	5
19. How satisfied are you with yourself?	1	2	3	4	5
20. How satisfied are you with your personal relationships?	1	2	3	4	5
21. How satisfied are you with your sex life	1	2	3	4	5
22. How satisfied are you with the support you get from your friends?	1	2	3	4	5
23. How satisfied are you with the conditions of your living place?	1	2	3	4	5
24. How satisfied are you with your access to health services?	1	2	3	4	5
25. How satisfied are you with your transport?	1	2	3	4	5

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The following question refers to how often you have felt or experienced certain things in the last four weeks.

26. How often do you have negative feelings such as blue mood, despair, anxiety, depression?

Never	Seldom	Quite often	Very often	Always

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APPENDIX B: Semi structured interview guide

Semi-structured Interview Guide (Study 1)

INTRODUCTIONS

1. Introduction of interviewers

2. Introduction of project:

Mental health problems are a key determinant of maternal and child mortality and morbidity, but are not currently recognized in existing initiatives to promote maternal health. We will explore what your experiences during pregnancy are and also your perceptions and understanding of perinatal mental health.

Aim: To ask you to share your experiences of being pregnant as well as your experiences, perceptions and understanding of perinatal mental health problems. We will also explore your perceptions and experiences of health care in Accra.

3. Introduction of recorder

4. Participant signs informed consent form

5. Switch recorder on

Background Information

Socio-demographic questions and medical characteristics pregnant women

1. Age…………………
2. What is your gestational age?................................
3. Religion………………
4. What is your marital status? …………………………..
5. How many children do you have? ………………………..
6. What is your occupation?...

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Main Questions and follow ups

1. Let's talk about your pregnancy
    - How does being pregnant make you feel? Happy, sad, fulfilled, feel like a complete woman etc.
    - How is the period of pregnancy different from when you were not pregnant?
    - Is this your first pregnancy?
    - If it is, what are some of your experiences so far? Challenges and or benefits. Do you experience excessive sleeplessness, tiredness among others.
    - Was this pregnancy planned? Feelings about it
    - Do you know the gender of your baby? How do you feel about it?
    - Are there any health issues you are experiencing currently that are associated with your pregnancy? How do you feel about it?
2. Let 's talk about perinatal mental health problems

- What do you understand by mental disorder?
- Do you think pregnant women experience mental disorders?
- What do you think are some of the causes of mental disorders in pregnant women
- Do you think there is a link between challenges/stressors during pregnancy and mental disorder?

3. Let's talk about the experience of perinatal mental health problems
    - Have you experienced any mental health difficulties yourself?
    - Where do you go/where would you go if you happen to experience any mental health challenge?

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- Are there any traditional rites/practices that have been performed for you or that you adhere to, that you think protect you from mental disorder during pregnancy? Not eating certain foods etc.
- Have you ever experienced thoughts of committing suicide?
- Has any member of your family had a history of mental illness?
- Are you satisfied with the level of care you have received from your health facility during your pregnancy?

Closure and debriefing

1. Do you have anything else to tell me about this topic?

2. Do you have any questions for me?

3. How have you felt about participating in this interview that explored your experiences while pregnant and your perceptions about perinatal mental health problems?

4. Is there anything you wish had been done differently in this interview?

(STUDY 3)

Semi-structured interview guide for Study Three (In-depth interviews)

Main Questions and follow ups

1. **Let's talk about your experiences with childbirth**
    - Could you tell me your experience of labour and childbirth?
    - How were you able to cope with these experiences?
    - How did you feel after seeing your baby?
    - Would you say it was all worth it in the end?

2. Let's talk about perinatal mental health disorder symptomatology

- Did you experience any challenges with "thinking too much" and "worrying too much"?
- What were the symptoms you experienced?
- Wat were some of the causes in your estimation of these symptoms?

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- Did you confide in your immediate family or a health professional about these symptoms?
- Do you reckon you have or may have been treated differently as a result of these symptoms?
- How well are you able to cope with these symptoms?

2. Let's talk about your experiences after birth

- How did you feel after you brought your baby home
- Do you think your community regards you better now that you have a child?
- How well were you able to adjust to your role?
- Would you say you are managing well or otherwise?
- Are there some things you feel you could do differently that will help you manage better?
- Are there particular people who you think have helped you to cope with challenges you have faced within this period?

Closure and debriefing

1. Do you have anything else to tell me about this topic?
2. Do you have any questions for me?
3. How have you felt about participating in this interview that explored your experience of childbirth and perinatal mental health problems?
4. Is there anything you wish had been done differently in this interview?

Semi-structured Interview Guide for Study Three (joint couple interview)

Introductions

1. Introduction of interviewers
2. Introduction of project:

Mental health problems are a key determinant of maternal and child mortality and morbidity, but are not currently recognized in existing initiatives to promote maternal health. We will explore:

To the woman: your experiences during childbirth and after birth and how you coped with them

To the man: your experiences as well as your role as a husband during the perinatal period.

3. Introduction of recorder
4. Participants signs informed consent form
5. Switch recorder on

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Background Information

Socio-demographic questions and medical characteristics of participants

7. Ages: (man)………………… (Woman)…………
8. Religion: (man)……………… (Woman)…………
9. What is your marital status? (Married)……………… (Cohabiting)…………..
10. How many children do you have? (Man)…………… (Woman)……….. (Together)………..
11. What is your occupation? (Man)...................... (Woman).......................

Main Questions and follow ups

3. Let's talk about your experiences with childbirth

- Could you tell me your experience of labour and childbirth?
- How were you able to cope with these experiences?
- How did you feel after seeing your baby?
- Would you say it was all worth it in the end?

2. Let's talk about perinatal mental health disorder symptomatology

- Did you experience any challenges with "thinking too much" and "worrying too much"?
- What were the symptoms you experienced?
- Wat were some of the causes in your estimation of these symptoms?
- Did you confide in your immediate family or a health professional about these symptoms?
- Do you reckon you have or may have been treated differently as a result of these symptoms?
- How well are you able to cope with these symptoms?

4. Let's talk about your experiences after birth

- How did you feel after you brought your baby home
- Do you think your community regards you better now that you have a child?
- How well were you able to adjust to your role?
- Would you say you are managing well or otherwise?
- Are there some things you feel you could do differently that will help you manage better?

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- Are there particular people who you think have helped you to cope with challenges you have faced within this period?

5. Let's talk about the role of your partner during this period

- What do you consider to be your partner's role during this period
- Have you confided in him about any perinatal mental health symptomatology that you have experienced?
- How would you judge his reaction to that information and subsequent behaviour
- Would you judge him as being helpful and supportive to you during this period
- If yes, Could you specifically say the ways in which he has been helpful
- If no, what do you think accounts for this state of affairs

Specifically to the male partner

4. Let's talk about your role during your partner's perinatal period?
    - What would you say your role has been during this period?
    - How would you describe yourself as a partner?
    - How would you describe yourself as a father?
    - Do you think that you have changed in terms of your conceptualisations of who a "man" is as a result of going through the perinatal period?
    - If yes, are there any specific factors accounting for this change?
    - If No, what has accounted for this?
    - Have you been aware of any mental health problem symptomatology experienced by your wife?
    - How do you perceive it and how have you supported her?

Closure and debriefing

1. Do you have anything else to tell me about this topic?
2. Do you have any questions for me?
3. How have you felt about participating in this interview?
4. Is there anything you wish had been done differently in this interview?

Semi-structured Interview Guide for Study Three (key informant interviews)

Introductions

1. Introduction of interviewers
2. Introduction of project:

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Mental health problems are a key determinant of maternal and child mortality and morbidity, but are not currently recognized in existing initiatives to promote maternal health. This interview will seek to explore your perspectives on mental health within maternal health care in Accra.

3. Introduction of recorder

4. Participants signs informed consent form

5. Switch recorder on

Background Information

Socio-demographic questions and medical characteristics of participants

5. Age: ………………
6. Occupation……………………
7. Number of years working in that capacity…………………
8. Brief job description………………………………………………………………………
9. Religion: ……………………………………………

Main Questions and follow ups

1. Let's talk about women during the perinatal period
    - How closely do you work with women during pregnancy and after birth?
    - What is the nature of your engagement with them?
    - In your estimation, what common problems do women during the perinatal period face?
    - How are you able to help them cope with these problems?
2. Let's talk about perinatal mental health care in Accra
    - Are you aware of any specialist mental health services for women in the perinatal period?
    - Do you offer such services within your facility or in your capacity?
    - Do you know of governmental policies or clinical guidelines concerning the assessment, referral, treatment and care of women who experience perinatal mental health problems?
    - What are your recommendations for the integration of maternity and mental health care services?

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Closure and debriefing

1. Do you have anything else to tell me about this topic?
2. Do you have any questions for me?
3. How have you felt about participating in this interview?
4. Is there anything you wish had been done differently in this interview?

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APPENDIX C: Consent form for participants

Consent Form for Pregnant women (Study One)

Title of Study: Common Perinatal mental health problems: Correlates, birth outcomes and quality of life among women in Accra.

Principal Investigator: Buruwaa Adomako

General Information about Research

Mental health problems are a key determinant of maternal and child mortality and morbidity, but are not currently recognized in existing initiatives to promote maternal health. This leaves mental health a neglected pillar of maternal health care, resulting in poor health outcomes along the continuum of care. Consequences for the mother and infant can be long term and life-threatening, and may lead to severe emotional problems and general medical problems in mothers, fathers and children if early appropriate treatment is not received.

This research is therefore aimed at investigating the relationship between perinatal mental health problems, birth outcomes and quality of life among women in Accra. The setting of this research will be the Accra metropolitan area, specifically, Achimota Hospital, Ushher Polyclinic, Maamobi Polyclinic, Mamprobi Polyclinic, Legon Hospital and Adabraka Polyclinic. The study will last from February to September 2016 and will basically utilize a three-phased sequential mixed method design. It seeks to generate high-quality evidence about mental health problems in the perinatal period in the Ghanaian setting in order to inform mental health interventions that will make pregnancy and childbirth safer for women and their babies.

This is the first phase of the research. It will be done with participants who are 8-9 months pregnant in order to explore their experiences during pregnancy and also their perceptions about perinatal mental health problems and healthcare in Accra

For this qualitative interview, I will ask you some questions that have been set in advance (you can see these before the interview if you like), but the interview generally runs like guided conversation, so you are free to talk about other issues that you think will have an impact the study or the question you have been asked. You will be given a sample interview

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schedule beforehand, so that you can input into it. You will be asked your experience of pregnancy and your understanding of perinatal illness, some of its antecedents and how you coped with it, if you experienced it. There are no right or wrong answers. The interview will take about 45 minutes and will take place at a place that is convenient for you. If you do not wish to answer any of the questions during the interview, you may say so and the interviewer will move on to the next question. No one else but the interviewer will be present unless you would like someone else to be there. The information recorded will be kept anonymous. The entire interview will be tape-recorded, but no-one will be identified by name on the tape and other identifying information (like place names) will be removed. The tape will be kept in a safe place where no one except the researcher will have access to them. After the interview, the information will be transcribed in full and the audio recording of your interview destroyed after the thesis has been examined.

Benefits/Risk of the study

There are no known risks to you if you decide to participate in this research study, nor are there any costs for participating in the study. Since this research deals with a vulnerable population namely pregnant women, care will be taken to ensure that your opinion as to what will make you comfortable is taken into consideration. Interviews will be well spaced to give you time to relax, and if you feel tired, they will be postponed to a time of your convenience. A thorough debriefing will be done at the end of the study and the provision of referrals to appropriate psychological services will be made available to participants in case they are distressed by any part of this research. Your taking part in this research will further our understanding of issues about mental health during pregnancy for Ghanaian women and also help to highlight beneficial cultural constructs.

Confidentiality

Names and all personal information will be anonymized. All hard copies will be kept under lock and key. Also all information stored on the computer will be password protected. All data generated will be kept safely and securely in the universities archives for a minimum of ten years before being destroyed. Any information about you will have a number on it instead of your name. Only the researcher will know what your number is. It will not be shared with or given to anyone. Quotes from the transcript will be used in the dissertation and possible subsequent scholarly publications, but these will be fully anonymized.

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Compensation

No compensation will be given to any participant.

Withdrawal from Study

Participation in this study is voluntary and any participant who wishes to do so may withdraw from the study at any time without any penalty whatsoever. No participant will be negatively affected by her decision to decline participation in this research either from the start, during or end of the research. The researcher will communicate to the participant or her legal representative timeously any information that is relevant to the participant's willingness to continue participation or withdraw. The participant does not have to give any reason for not responding to any question or for refusing to take part in the interview.

Contact for Additional Information

If you have any queries, please don't hesitate to contact me.

Buruwaa Adomako

P O Box GP 14833

Accra

Tel No. : 0269313568

Email: (briwaa2001@yahoo.com

If you have any questions about your rights as a research participant in this study you may contact the Administrator of the Ethics Committee for Humanities, ISSER, University of Ghana at ech@isser.edu.gh / ech@ug.edu.gh or 00233- 303-933-866.

INTEGRI PROCEDAMUS

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Volunteer Agreement

"I have read or have had someone read all of the above, asked questions, received answers regarding participation in this study, and am willing to give consent for me, my child/ward to participate in this study. I will not have waived any of my rights by signing this consent form. Upon signing this consent form, I will receive a copy for my personal records."

____

Name of Volunteer

_______________________________________ _____________________

Signature or mark of volunteer Date

If volunteers cannot read the form themselves, a witness must sign here:

I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

____

Name of witness

____ _____________________

Signature of witness Date

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

____

INTEGRI PROCEDAMUS

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Name of Person who Obtained Consent

____ ____________________

Signature of Person Who Obtained Consent Date

Consent Form for women in the perinatal period (Study Two)

Title of Study: Common Perinatal mental health problems: Correlates, birth outcomes and quality of life among women in Accra.

Principal Investigator: Buruwaa Adomako

General Information about Research

Mental health problems are a key determinant of maternal and child mortality and morbidity, but are not currently recognized in existing initiatives to promote maternal health. This leaves mental health a neglected pillar of maternal health care, resulting in poor health outcomes along the continuum of care. Consequences for the mother and infant can be long term and life-threatening, and may lead to severe emotional problems and general medical problems in mothers, fathers and children if early appropriate treatment is not received.

This research is therefore aimed at investigating the relationship between perinatal mental health problems, birth outcomes and quality of life among women in Accra. The setting of this research will be the Accra metropolitan area, specifically, Achimota Hospital, Ushher Polyclinic, Maamobi Polyclinic, Mamprobi Polyclinic, Legon Hospital and Adabraka Polyclinic. The study will last from February to September 2016 and will basically utilize a three phased sequential mixed method design. It seeks to generate high-quality evidence about mental health problems in the perinatal period in the Ghanaian setting in order to inform mental health interventions that will make pregnancy and childbirth safer for women and their babies.

This research is will take place in phases and use both quantitative and qualitative approaches. Principally, there will be administration of questionnaires when you are in 8-9 months pregnant. Subsequently, 6 weeks to 12 weeks after delivery, there will again be the administration of questionnaires. If you require any help with understanding the questions, assistance will be provided. All information given will be kept confidential and you're

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anonymity ensured at all times. If you decide not to continue with the research at any time, you are free to do so.

There will also be a follow up qualitative interviews to explore some of the issues underlying the results.

For the follow up qualitative interview, I will ask you some questions that have been set in advance (you can see these before the interview if you like), but the interview generally runs like guided conversation, so you are free to talk about other issues that you think will have an impact the study or the question you have been asked. You will be given a sample interview schedule beforehand, so that you can input into it. You will be asked your experience of childbirth and how you coped with it. There are no right or wrong answers. The interview will take about 45 minutes and will take place at a place that is convenient for you. If you do not wish to answer any of the questions during the interview, you may say so and the interviewer will move on to the next question. No one else but the interviewer will be present unless you would like someone else to be there. The information recorded will be kept anonymous. The entire interview will be tape-recorded, but no-one will be identified by name on the tape and other identifying information (like place names) will be removed. The tape will be kept in a safe place where no one except the researcher will have access to them. After the interview, the information will be transcribed in full and the audio recording of your interview destroyed after the thesis has been examined.

Benefits/Risk of the study

There are no known risks to you if you decide to participate in this research study, nor are there any costs for participating in the study. Since this research deals with a vulnerable population namely pregnant women, care will be taken to ensure that your opinion as to what will make you comfortable is taken into consideration. Interviews will be well spaced to give you time to relax, and if you feel tired, they will be postponed to a time of your convenience. A thorough debriefing will be done at the end of the study and the provision of referrals to appropriate psychological services will be made available to participants in case they are distressed by any part of this research. Your taking part in this research will further our understanding of issues about mental health during pregnancy for Ghanaian women and also help to highlight beneficial cultural constructs.

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Confidentiality

Names and all personal information will be anonymized. All hard copies will be kept under lock and key. Also all information stored on the computer will be password protected. All data generated will be kept safely and securely in the universities archives for a minimum of ten years before being destroyed. Any information about you will have a number on it instead of your name. Only the researcher will know what your number is. It will not be shared with or given to anyone. Quotes from the transcript will be used in the dissertation and possible subsequent scholarly publications, but these will be fully anonymized.

Compensation

No compensation will be given to any participant.

Withdrawal from Study

Participation in this study is voluntary and any participant who wishes to do so may withdraw from the study at any time without any penalty whatsoever. No participant will be negatively affected by her decision to decline participation in this research either from the start, during or end of the research. The researcher will communicate to the participant or her legal representative timeously any information that is relevant to the participant's willingness to continue participation or withdraw. The participant does not have to give any reason for not responding to any question or for refusing to take part in the interview.

Contact for Additional Information

If you have any queries, please don't hesitate to contact me.

Buruwaa Adomako

P O Box GP 14833

Accra

Tel No. : 0269313568

Email: (briwaa2001@yahoo.com

If you have any questions about your rights as a research participant in this study you may contact the Administrator of the Ethics Committee for Humanities, ISSER, University of Ghana at ech@isser.edu.gh / ech@ug.edu.gh or 00233- 303-933-866.

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Volunteer Agreement

"I have read or have had someone read all of the above, asked questions, received answers regarding participation in this study, and am willing to give consent for me, my child/ward to participate in this study. I will not have waived any of my rights by signing this consent form. Upon signing this consent form, I will receive a copy for my personal records."

____

Name of Volunteer

____ ____________________

Signature or mark of volunteer Date

If volunteers cannot read the form themselves, a witness must sign here:

I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

____

Name of witness

____ ____________________

Signature of witness Date

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

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____

Name of Person who Obtained Consent

___________________________________ _________________

Signature of Person Who Obtained Consent Date

Consent Form for women after childbirth (Study Three)

Title of Study: Common Perinatal mental health problems: Correlates, birth outcomes and quality of life among women in Accra.

Principal Investigator: Buruwaa Adomako

General Information about Research

Mental health problems are a key determinant of maternal and child mortality and morbidity, but are not currently recognized in existing initiatives to promote maternal health. This leaves mental health a neglected pillar of maternal health care, resulting in poor health outcomes along the continuum of care. Consequences for the mother and infant can be long term and life-threatening, and may lead to severe emotional problems and general medical problems in mothers, fathers and children if early appropriate treatment is not received.

This research is therefore aimed at investigating the relationship between perinatal mental health problems, birth outcomes and quality of life among women in Accra. The study will last from February to September 2016 and will basically utilize a three phased sequential mixed method design. It seeks to generate high-quality evidence about mental health problems in the perinatal period in the Ghanaian setting in order to inform mental health interventions that will make pregnancy and childbirth safer for women and their babies.

This research is a follow up study to explore the contextual issues underlying the results in the previous study you took part in when you were 8-9 months pregnant. And again at 6 weeks to 12 weeks after delivery.

For this follow up qualitative interview, I will ask you some questions that have been set in advance (you can see these before the interview if you like), but the interview generally runs

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like guided conversation, so you are free to talk about other issues that you think will have an impact the study or the question you have been asked. You will be given a sample interview schedule beforehand, so that you can input into it. You will be asked your experience of childbirth and how you coped with it. There are no right or wrong answers. The interview will take about 45 minutes and will take place at a place that is convenient for you. If you do not wish to answer any of the questions during the interview, you may say so and the interviewer will move on to the next question. No one else but the interviewer will be present unless you would like someone else to be there. The information recorded will be kept anonymous. The entire interview will be tape-recorded, but no-one will be identified by name on the tape and other identifying information (like place names) will be removed. The tape will be kept in a safe place where no one except the researcher will have access to them. After the interview, the information will be transcribed in full and the audio recording of your interview destroyed after the thesis has been examined.

Benefits/Risk of the study

There are no known risks to you if you decide to participate in this research study, nor are there any costs for participating in the study. Since this research deals with a vulnerable population namely women who have recently had a baby, care will be taken to ensure that your opinion as to what will make you comfortable is taken into consideration. Interviews will be well spaced to give you time to relax, and if you feel tired, they will be postponed to a time of your convenience. A thorough debriefing will be done at the end of the study and the provision of referrals to appropriate psychological services will be made available to participants in case they are distressed by any part of this research. Your taking part in this research will further our understanding of issues about mental health during pregnancy for Ghanaian women and also help to highlight beneficial cultural constructs.

Confidentiality

Names and all personal information will be anonymized. All hard copies will be kept under lock and key. Also all information stored on the computer will be password protected. All data generated will be kept safely and securely in the universities archives for a minimum of ten years before being destroyed. Any information about you will have a number on it instead of your name. Only the researcher will know what your number is. It will not be shared with or given to anyone. Quotes from the transcript will be used in the dissertation and possible subsequent scholarly publications, but these will be fully anonymized.

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Compensation

No compensation will be given to any participant.

Withdrawal from Study

Participation in this study is voluntary and any participant who wishes to do so may withdraw from the study at any time without any penalty whatsoever. No participant will be negatively affected by her decision to decline participation in this research either from the start, during or end of the research. The researcher will communicate to the participant or her legal representative timeously any information that is relevant to the participant's willingness to continue participation or withdraw. The participant does not have to give any reason for not responding to any question or for refusing to take part in the interview.

Contact for Additional Information

If you have any queries, please don't hesitate to contact me.

Buruwaa Adomako

P O Box GP 14833

Accra

Tel No. : 0269313568

Email: (briwaa2001@yahoo.com

If you have any questions about your rights as a research participant in this study you may contact the Administrator of the Ethics Committee for Humanities, ISSER, University of Ghana at ech@isser.edu.gh / ech@ug.edu.gh or 00233- 303-933-866.

Volunteer Agreement

"I have read or have had someone read all of the above, asked questions, received answers regarding participation in this study, and am willing to give consent for me, my child/ward to participate in this study. I will not have waived any of my rights by signing this consent form. Upon signing this consent form, I will receive a copy for my personal records."

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____

Name of Volunteer

____ ___________________

Signature or mark of volunteer Date

If volunteers cannot read the form themselves, a witness must sign here:

I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

____

Name of witness

____ ____________________

Signature of witness Date

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

____

Name of Person who Obtained Consent

_______________________________________ _____________________

Signature of Person Who Obtained Consent Date

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Consent Form for key Informants (Study Three)

Title of Study: Common Perinatal mental health problems: Correlates, birth outcomes and quality of life among women in Accra.

Principal Investigator: Buruwaa Adomako

General Information about Research

Mental health problems are a key determinant of maternal and child mortality and morbidity, but are not currently recognized in existing initiatives to promote maternal health. This leaves mental health a neglected pillar of maternal health care, resulting in poor health outcomes along the continuum of care. Consequences for the mother and infant can be long term and life-threatening, and may lead to severe emotional problems and general medical problems in mothers, fathers and children if early appropriate treatment is not received.

This research is therefore aimed at investigating the relationship between perinatal mental health problems, birth outcomes and quality of life among women in Accra. The study will last from February to September 2016 and will basically utilize a three phased sequential mixed method design. It seeks to generate high-quality evidence about mental health problems in the perinatal period in the Ghanaian setting in order to inform mental health interventions that will make pregnancy and childbirth safer for women and their babies.

This is the third phase of the research, which is a follow up qualitative study to explore some of the issues underlying the results from the previous phase. Principally the interview with you will aim to explore the contextual factors relating to perinatal mental health care in Accra. For the follow up qualitative interview, I will ask you some questions that have been set in advance (you can see these before the interview if you like), but the interview generally runs like guided conversation, so you are free to talk about other issues that you think will have an impact the study or the question you have been asked. You will be given a sample interview schedule beforehand, so that you can input into it. You will be asked your perspectives on perinatal mental health care in Accra. There are no right or wrong answers. The interview will take about 45 minutes and will take place at a place that is convenient for you. If you do not wish to answer any of the questions during the interview, you may say so and the interviewer will move on to the next question. No one else but the interviewer will be present unless you would like someone else to be there. The information recorded will be

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kept anonymous. The entire interview will be tape-recorded, but no-one will be identified by name on the tape and other identifying information (like place names) will be removed. The tape will be kept in a safe place where no one except the researcher will have access to them. After the interview, the information will be transcribed in full and the audio recording of your interview destroyed after the thesis has been examined.

Benefits/Risk of the study

There are no known risks to you if you decide to participate in this research study, nor are there any costs for participating in the study. A thorough debriefing will be done at the end of the study and the provision of referrals to appropriate psychological services will be made available to participants in case they are distressed by any part of this research. Your taking part in this research will further our understanding of issues about mental health during pregnancy for Ghanaian women and also help to highlight beneficial cultural constructs.

Confidentiality

Names and all personal information will be anonymized. All hard copies will be kept under lock and key. Also all information stored on the computer will be password protected. All data generated will be kept safely and securely in the universities archives for a minimum of ten years before being destroyed. Any information about you will have a number on it instead of your name. Only the researcher will know what your number is. It will not be shared with or given to anyone. Quotes from the transcript will be used in the dissertation and possible subsequent scholarly publications, but these will be fully anonymized.

Compensation

No compensation will be given to any participant.

Withdrawal from Study

Participation in this study is voluntary and any participant who wishes to do so may withdraw from the study at any time without any penalty whatsoever. No participant will be negatively affected by her decision to decline participation in this research either from the start, during or end of the research. The researcher will communicate to the participant or her legal

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representative timeously any information that is relevant to the participant's willingness to continue participation or withdraw. The participant does not have to give any reason for not responding to any question or for refusing to take part in the interview.

Contact for Additional Information

If you have any queries, please don't hesitate to contact me.

Buruwaa Adomako

P O Box GP 14833

Accra

Tel No. : 0269313568

Email: (briwaa2001@yahoo.com

If you have any questions about your rights as a research participant in this study you may contact the Administrator of the Ethics Committee for Humanities, ISSER, University of Ghana at ech@isser.edu.gh / ech@ug.edu.gh or 00233- 303-933-866.

Volunteer Agreement

"I have read or have had someone read all of the above, asked questions, received answers regarding participation in this study, and am willing to give consent for me, my child/ward to participate in this study. I will not have waived any of my rights by signing this consent form. Upon signing this consent form, I will receive a copy for my personal records."

____

Name of Volunteer

____ __________________

Signature or mark of volunteer Date

If volunteers cannot read the form themselves, a witness must sign here:

University of Ghana http://ugspace.ug.edu.gh

I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

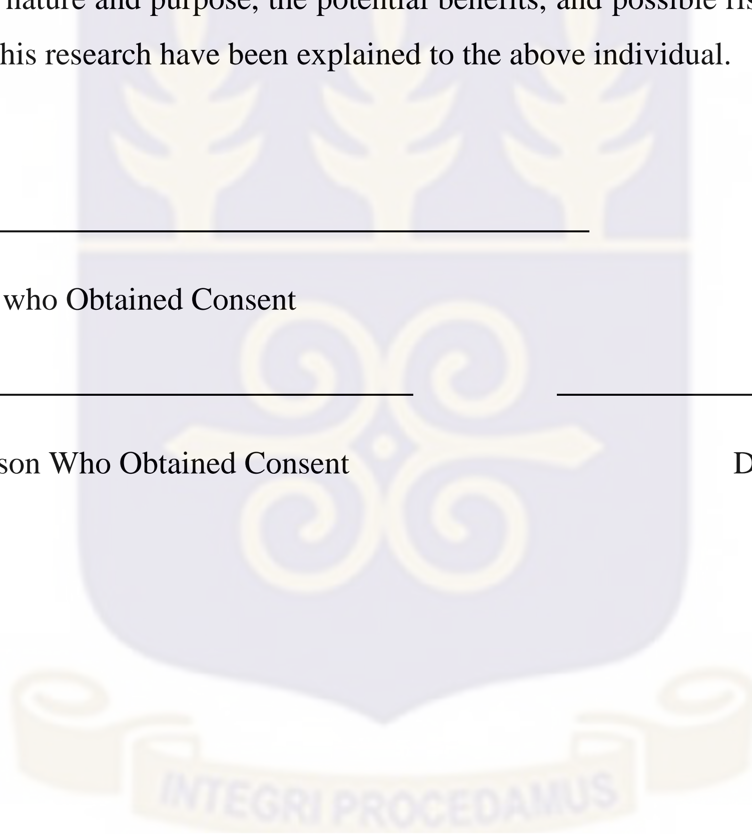
____

Name of witness

________________________________ ____________________

Signature of witness Date

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.



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Name of Person who Obtained Consent

________________________________ ____________________

Signature of Person Who Obtained Consent Date

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Consent Form for Couple (Study Three)

Title of Study: Common Perinatal mental health problems: Correlates, birth outcomes and quality of life among women in Accra.

Principal Investigator: Buruwaa Adomako

General Information about Research

Mental health problems are a key determinant of maternal and child mortality and morbidity, but are not currently recognized in existing initiatives to promote maternal health. This leaves mental health a neglected pillar of maternal health care, resulting in poor health outcomes along the continuum of care. Consequences for the mother and infant can be long term and life-threatening, and may lead to severe emotional problems and general medical problems in mothers, fathers and children if early appropriate treatment is not received.

This research is therefore aimed at investigating the relationship between perinatal mental health problems, birth outcomes and quality of life among women in Accra. The study will last from February to September 2016 and will basically utilize a three phased sequential mixed method design. It seeks to generate high-quality evidence about mental health problems in the perinatal period in the Ghanaian setting in order to inform mental health interventions that will make pregnancy and childbirth safer for women and their babies.

This research is a follow up study to explore the contextual issues underlying the results in the previous study in which:

To the woman: you took part in when you were 8-9 months pregnant. And again at 6 weeks to 12 weeks after delivery.

To the man: your wife took part in when she was 8-9 months pregnant. And again at 6 weeks to 12 weeks after delivery.

For this follow up qualitative interview, I will ask both of you some questions that have been set in advance (you can see these before the interview if you like), but the interview generally

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runs like guided conversation, so you are free to talk about other issues that you think will have an impact the study or the question you have been asked. You will be given a sample interview schedule beforehand, so that you can input into it. You will be asked about your/your wife's experience of childbirth and how you coped with it. You will also be asked about the role your husband is playing within this period. There are no right or wrong answers. The interview will take about 45 minutes and will take place at a place that is convenient for you. If you do not wish to answer any of the questions during the interview, you may say so and the interviewer will move on to the next question. No one else but the interviewer will be present unless you would like someone else to be there. The information recorded will be kept anonymous. The entire interview will be tape-recorded, but no-one will be identified by name on the tape and other identifying information (like place names) will be removed. The tape will be kept in a safe place where no one except the researcher will have access to them. After the interview, the information will be transcribed in full and the audio recording of your interview destroyed after the thesis has been examined.

Benefits/Risk of the study

There are no known risks to you if you decide to participate in this research study, nor are there any costs for participating in the study. Since this research deals with a vulnerable population namely mothers who had just had a baby, care will be taken to ensure that your opinion as to what will make you comfortable is taken into consideration. Interviews will be well spaced to give you time to relax, and if you feel tired, they will be postponed to a time of your convenience. A thorough debriefing will be done at the end of the study and the provision of referrals to appropriate psychological services will be made available to participants in case they are distressed by any part of this research. Your taking part in this research will further our understanding of issues about mental health during pregnancy for Ghanaian women and also help to highlight beneficial cultural constructs.

Confidentiality

Names and all personal information will be anonymized. All hard copies will be kept under lock and key. Also all information stored on the computer will be password protected. All data generated will be kept safely and securely in the universities archives for a minimum of ten years before being destroyed. Any information about you will have a number on it instead

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of your name. Only the researcher will know what your number is. It will not be shared with or given to anyone. Quotes from the transcript will be used in the dissertation and possible subsequent scholarly publications, but these will be fully anonymized.

Compensation

No compensation will be given to any participant.

Withdrawal from Study

Participation in this study is voluntary and any participant who wishes to do so may withdraw from the study at any time without any penalty whatsoever. No participant will be negatively affected by her decision to decline participation in this research either from the start, during or end of the research. The researcher will communicate to you or your legal representative timeously any information that is relevant to the participant's willingness to continue participation or withdraw. The participant does not have to give any reason for not responding to any question or for refusing to take part in the interview.

Contact for Additional Information

If you have any queries, please don't hesitate to contact me.

Buruwaa Adomako

P O Box GP 14833

Accra

Tel No. : 0269313568

Email: (briwaa2001@yahoo.com

If you have any questions about your rights as a research participant in this study you may contact the Administrator of the Ethics Committee for Humanities, ISSER, University of Ghana at ech@isser.edu.gh / ech@ug.edu.gh or 00233- 303-933-866.

Volunteer Agreement

"I have read or have had someone read all of the above, asked questions, received answers regarding participation in this study, and am willing to give consent for me, my child/ward to participate in this study. I will not have waived any of my rights by

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signing this consent form. Upon signing this consent form, I will receive a copy for my personal records."

____

Name of Volunteer

____ ____________________

Signature or mark of volunteer Date

If volunteers cannot read the form themselves, a witness must sign here:

I was present while the benefits, risks and procedures were read to the volunteer. All questions were answered and the volunteer has agreed to take part in the research.

____

Name of witness

____ ____________________

Signature of witness Date

I certify that the nature and purpose, the potential benefits, and possible risks associated with participating in this research have been explained to the above individual.

____

Name of Person who Obtained Consent

____ ____________________

Signature of Person Who Obtained Consent Date

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APPENDIX D: Themes and sub-themes in qualitative analysis

(Study 1)

Master Themes	Sub-themes
Pregnancy as a Mixed Bag	The 'Joys' The 'Distress'
Conceptions about PMD'S	Awareness of PMD'S Semantics of PMD'S
Experiencing Pregnancy	Living Pregnant as Mother Living Pregnant within Family Living Pregnant within Health
Coping mechanisms of the pregnancy experience	Faith as a tool for coping Engagement in productive activity as a tool for coping

Themes and sub-themes in qualitative analysis (Study 3)

Master Themes	Subthemes
Conceptions of Childbirth	Normative views of childbirth Critical discourses on childbirth Religio-cultural practices after childbirth
Explanatory models of CMD symptomatology	Past birth experiences Experiences during the period of pregnancy Experiences during labour Experiences after birth
Coping after birth	Sense of self efficacy Spiritual beliefs The use of behavioural distractions
Constructions of Intimate Partner relationship	Male positionality in intimate relationships Women's agency in intimate relationships
Perspectives on perinatal mental health	Unmet need for perinatal mental health services

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care	The need for an Integrated and culturally competent perinatal mental health service

INTEGRI PROCEDAMUS

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APPENDIX E: Exploratory factor analysis

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.741
Bartlett's Test of Sphericity	Approx. Chi-Square	698.177
	df	66
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	4.313	35.942	35.942	4.313	35.942	35.942	3.148
2	2.320	19.332	55.275	2.320	19.332	55.275	3.137
3	1.301	10.840	66.115	1.301	10.840	66.115	2.954
4	.946	7.880	73.995				
5	.668	5.564	79.559				
6	.655	5.459	85.018				
7	.555	4.622	89.640				
8	.349	2.906	92.546				
9	.276	2.299	94.845				
10	.237	1.977	96.821				
11	.210	1.747	98.568				
12	.172	1.432	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

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Pattern Matrix[a]

	Component		
	1	2	3
I CAN TALK ABOUT MY PROBLEMS WITH MY FAMILY	.856		
MY FAMILY IS WILLING TO HELP ME MAKE DECISION	.821		
I GET THE EMOTIONAL HELP AND SUPPORT I NEED FROM MY FAMILY	.659		
MY FAMILY REALLY TRIES TO HELP ME	.605		
I HAVE FRIENDS WITH WHOM I CAN SHARE MY JOYS AND SORROWS		.867	
MY FRIENDS REALLY TRY TO HELP ME		.841	
I CAN COUNT ON MY FRIENDS WHEN THINGS GO WRONG		.815	
I CAN TALK ABOUT MY PROBLEMS WITH MY FRIENDS		.799	
THERE IS A SPECIAL PERSON WHO IS AROUND WHEN AM IN NEED			.842
THERE IS A SPECIAL PERSON WITH WHOM I CAN SHARE JOYS AND SORROWS			.807
I HAVE A SPECIAL PERSON WHO IS A REAL SOURCE OF COMFORT TO ME			.624
THERE IS A SPECIAL IN MY LIFE WHO CARE ABOUT MY FEELINGS			.621

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.[a]

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.691
Bartlett's Test of Sphericity	Approx. Chi-Square	253.602
	Df	45
	Sig.	.000

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Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	2.880	28.801	28.801	2.880	28.801	28.801	2.487
2	1.683	16.826	45.627	1.683	16.826	45.627	1.720
3	1.161	11.607	57.234	1.161	11.607	57.234	2.084
4	.945	9.455	66.689				
5	.808	8.077	74.766				
6	.723	7.226	81.992				
7	.585	5.855	87.847				
8	.501	5.012	92.859				
9	.404	4.042	96.900				
10	.310	3.100	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

Pattern Matrix[a]

	Component		
	1	2	3
SCC9	.856		
SCC8	.728		
I HAVE BEEN ANXIOUS OR WORRIED FOR NO GOD REASON	.599		
SCC10	.566		
I HAVE LOOKED FORWARD WITH ENJOYMENT TO THINGS		.908	
I HAVE BEEN ABLE TO LAUGH AND SEE THE FUNNY SIDE OF THINGS		.900	
SCC6			.884
SCC3			.571
SCC5			.564
SCC7	.399		.436

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.[a]

a. Rotation converged in 7 iterations.

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KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.770
Bartlett's Test of Sphericity	Approx. Chi-Square	922.417
	df	210
	Sig.	.000

Total Variance Explained						
	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.019	28.661	28.661	6.019	28.661	28.661
2	1.892	9.009	37.670	1.892	9.009	37.670
3	1.509	7.188	44.858	1.509	7.188	44.858
4	1.413	6.727	51.585	1.413	6.727	51.585
5	1.171	5.575	57.160	1.171	5.575	57.160
6	1.094	5.209	62.369	1.094	5.209	62.369
7	.997	4.749	67.118			
8	.877	4.175	71.293			
9	.795	3.786	75.079			
10	.758	3.610	78.689			
11	.671	3.197	81.886			
12	.597	2.842	84.728			
13	.563	2.679	87.407			
14	.519	2.473	89.879			
15	.508	2.417	92.297			
16	.381	1.815	94.111			
17	.319	1.518	95.629			
18	.309	1.471	97.100			
19	.255	1.214	98.314			
20	.196	.934	99.248			
21	.158	.752	100.000			
Extraction Method: Principal Component Analysis.						

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Component Matrix[a]						
	Component					
	1	2	3	4	5	6
I WAS INTOLERANT OF ANYTHING THAT KEPT ME FROM GETTING ON WITH WHAT I WAS DOING	.750					
I WAS UNABLE TO BECOME ENTHUSIASTIC ABOUT ANYTHING	.738					
I FELT THAT I WAS USING A LOT OF NERVOUS ENERGY	.698					
I FOUND IT DIFFICULT TO WORK UP THE INITIATIVE TO DO THINGS	.686	-.430				
I WAS WORRE ABOUT SITUATION IN WHICH I MIGHT PANIC AND MAKE A FOOL OF MYSELF	.659					
I FOUND MYSELF GETTING AGITATED	.638					
I COULDNT SEEMS TO EXPERINCE ANY POSITIVE FEELING AT ALL	.628		-.435			
I FELT SCARE WITHOUT ANY GOOD REASON	.585				-.426	-.339
I FELT I WAS CLOSE TO PANIC	.579	.403				
I EXPERINCE BREATING DIFFICULTY	.477	.460	-.340			
I FELT THAT I WAS RATHER TOUCHY	.470	-.311		.331		
I FOUND IT DIFFICULT TO RELAX	.465	.393		-.332		
I FELT I WASNT WORTH MUCH AS A PERSON	.556	-.669				
I EXPERINCE TREMBLING(eg.IN THE HANDS			.581			
I FELT LIFE WAS MEANINGLESS	.425		.525			
I FELT DOWN-HEARTED AND BLUE	.491			-.519		

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I FELT THAT I HAD NOTHING TO LOOK FORWARD TO	.354		-.332	-.507		
I TENDED TO OVER-REACT TO SITUATIONS	.368				.719	
I WAS AWARE OF DRYNESS OF MY MOUTH	.343	.371		.315	-.474	
I FOUND IT HARD TO WIN DOWN			-.381			.600
I WAS AWARE OF THE ACTION OF MY HEART IN THE ABSENCE OF PHYSICAL EXERTION	.331		-.315	.436		-.458
Extraction Method: Principal Component Analysis.						
a. 6 components extracted.						

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.733
Bartlett's Test of Sphericity	Approx. Chi-Square	1384.609
	Df	276
	Sig.	.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	6.106	25.442	25.442	6.106	25.442	25.442	3.763
2	3.833	15.970	41.411	3.833	15.970	41.411	3.733
3	1.467	6.112	47.524	1.467	6.112	47.524	2.320
4	1.381	5.754	53.278	1.381	5.754	53.278	2.127
5	1.257	5.237	58.515	1.257	5.237	58.515	1.825
6	1.121	4.673	63.187	1.121	4.673	63.187	3.481
7	1.027	4.278	67.465	1.027	4.278	67.465	3.326
8	.922	3.841	71.306				
9	.894	3.726	75.032				
10	.777	3.236	78.269				

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11	.682	2.843	81.111				
12	.657	2.736	83.847				
13	.601	2.506	86.353				
14	.539	2.245	88.599				
15	.491	2.046	90.645				
16	.443	1.847	92.491				
17	.382	1.591	94.082				
18	.301	1.256	95.338				
19	.288	1.199	96.537				
20	.228	.948	97.485				
21	.191	.797	98.282				
22	.173	.722	99.004				
23	.161	.671	99.675				
24	.078	.325	100.000				
Extraction Method: Principal Component Analysis.							
a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.							

Pattern Matrix[a]

	Component						
	1	2	3	4	5	6	7
IS VERY LOVING TO ME	.773						
MAKES ME FEEL NEEDED	.685						.386
IS PHYSICALLY GENTLE AND CONSIDERATE	.591		-.351				
TENDS TO TRY TO CHANGE ME	.469		.359				-.332
IS FUN TO BE WITH	.342		.329	.331	.308		
SHOWS HIS/HER APPRECIATION OF ME	.317						
TEND TO CONTROL EVERYTHING I DO		.801				.321	
SEEK TO DOMINATE ME		.800					
TENDS TO ORDER ME ABOUT		.793					
INSIST I DO EXACTLY AS I AM TOLD		.564					

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CRITICIZE ME OVER SMALL ISSUES		.350					-.302
IS CLEARLY HURT IF I DONT ACCEPT HIS/HERVIEWS			.810				
WANT TO CHANGE ME IN BIG WAYS		.349	.502				
IS CRITICAL OF ME IN PRIVATE	-.327			.713			
WANTS TO KNOW EXACTLY WHAT IA M DOING AND WHERE I AM				.707			
WANTS ME TO TAKE HIS/HER SIDE IN AN ARGUMENT					-.792		
SPEAKS TO ME IN WARM AND FRIENDLY VOICE					.496	-.495	
IS AFFECTIONATE TO ME						-.737	
IS A GOOD COMPANION				.323		-.666	
WANT ME TO CHANGE IN SMALL WAY		.362	.335			-.582	
IS GENTLE AND KIND TO ME	.412					-.506	
IS VERY CONSIDERATE OF ME	.312		-.435			-.464	
CONFIDES CLOSELY IN ME					-.313		.776
UNDERSTAND MY PROBLEMS AND WORRIES							.680

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.[a]

a. Rotation converged in 24 iterations.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.765
Bartlett's Test of Sphericity	Approx. Chi-Square	1170.605
	df	325
	Sig.	.000

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Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	6.018	23.147	23.147	6.018	23.147	23.147	2.589
2	3.173	12.204	35.351	3.173	12.204	35.351	3.718
3	1.610	6.191	41.542	1.610	6.191	41.542	2.297
4	1.526	5.871	47.413	1.526	5.871	47.413	2.907
5	1.346	5.177	52.590	1.346	5.177	52.590	2.550
6	1.307	5.025	57.615	1.307	5.025	57.615	1.616
7	1.091	4.195	61.810	1.091	4.195	61.810	3.424
8	1.017	3.910	65.720	1.017	3.910	65.720	2.261
9	.990	3.808	69.529				
10	.874	3.362	72.891				
11	.829	3.188	76.078				
12	.746	2.870	78.949				
13	.707	2.719	81.668				
14	.613	2.359	84.027				
15	.595	2.290	86.317				
16	.525	2.018	88.335				
17	.446	1.717	90.052				
18	.416	1.599	91.651				
19	.370	1.425	93.076				
20	.353	1.358	94.434				
21	.317	1.220	95.654				
22	.291	1.119	96.773				
23	.246	.948	97.721				
24	.228	.878	98.599				
25	.197	.756	99.356				
26	.168	.644	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

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Pattern Matrix[a]								
	Component							
	1	2	3	4	5	6	7	8
how well are you able to get around	.815							
do you have enough energy for everyday life	.493							
how satisfied are u with your ability to perform your daily living activities	.466							.332
how satisfied are you with your sleep	.412			-.310				
TO WHAT EXTENT DO YOU FEEL YOUR LIFE TO BE MEANINGFUL		.874						
HOW MUCH DO YOU ENJOY LIFE		.828						
HOW SAFE DO YOU FEEL IN YOUR DAILY LIFE		.794						
HOW HEALTHY IS YOUR PHYSICAL ENVIRONMENT		.772						
HOW WELL ARE YOU ABLE TO CONCENTRATE		.705						
how available to you is the information that you need in your day-to-day life?			.766					
have you enough money to meet your needs			.634	-.343				
HOW WILL YOU RATE YOUR QUALITY LIFE			.539					
how satisfied re you with your sex life				-.750				
how satisfied are you with the conditions of your living place				-.682				
how satisfied are you wuth the support you get from your friends				-.584		-.471		
how satisfied are you with your personal relationship				-.460				.348

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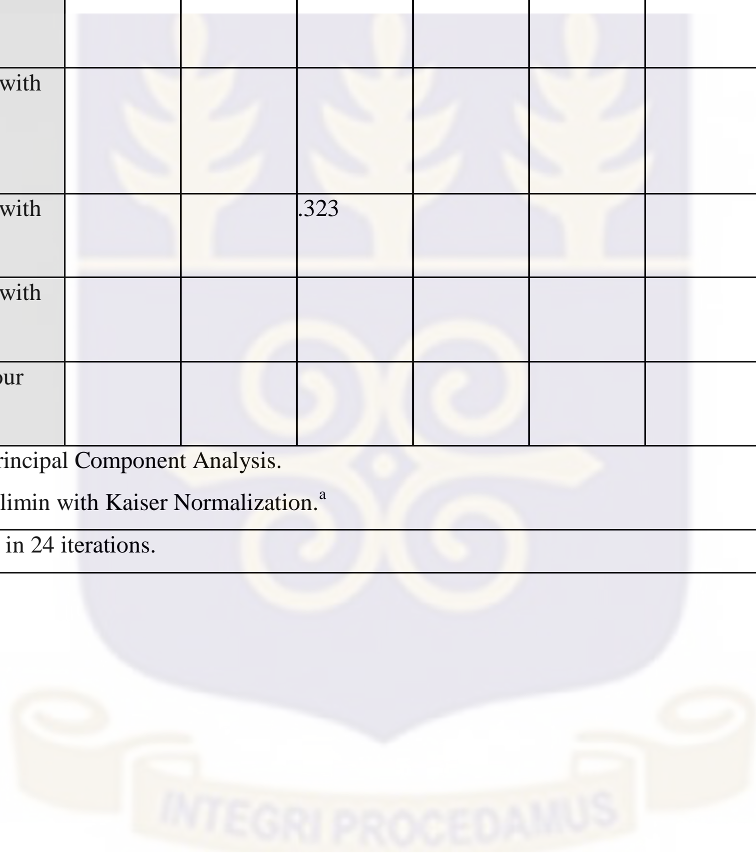
SFF3					.799			
how often do you have negative feelings such as blue mood,despair, anxiety, depression					-.590			
SFF4	.397				.478			
how satisfied are you with your capacity for work					-.420			
to what extent do you have the opportunity for leisure activities						-.827		
HOW SATISFIED ARE YOU WITH YOUR HEALTH							-.764	
how satisfied are you with your access to health services							-.719	
how satisfied are you with your transport			.323				-.410	
how satisfied are you with yourself							-.389	
are u able to accept your bodily appearance								.896
Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalization.[a]								
a. Rotation converged in 24 iterations.								



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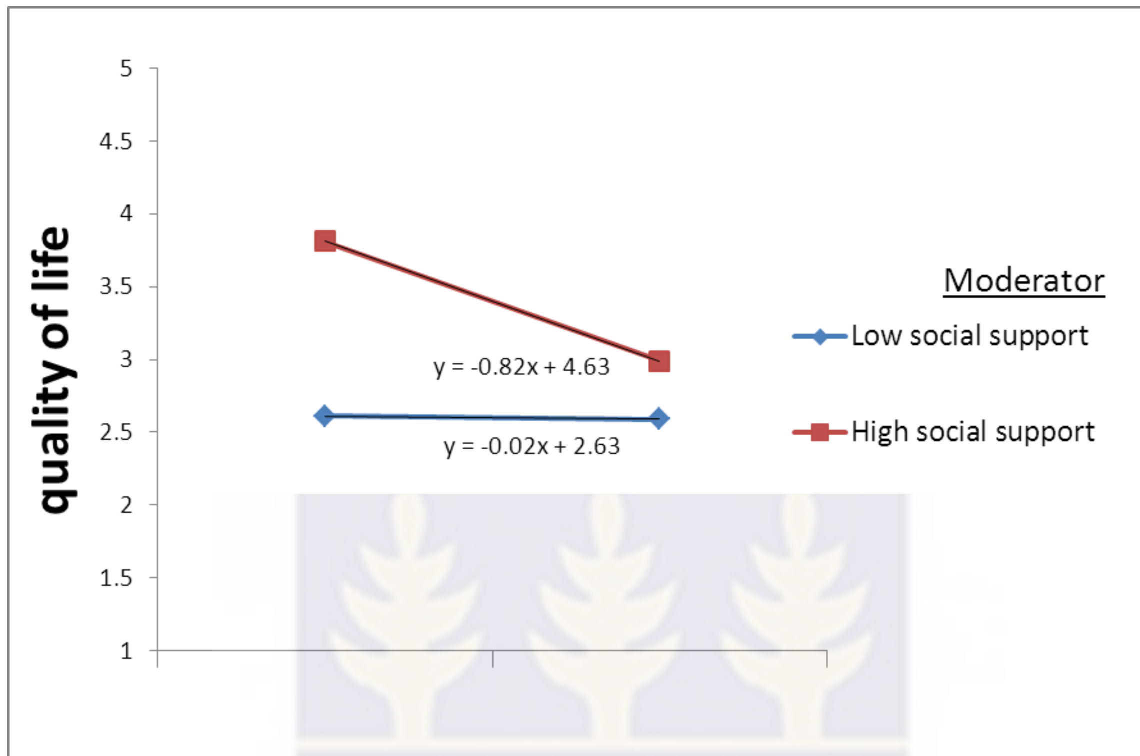
APPENDIX F: Graph showing moderating effects



social support strengthens the negative relationship between depression and quality of life.

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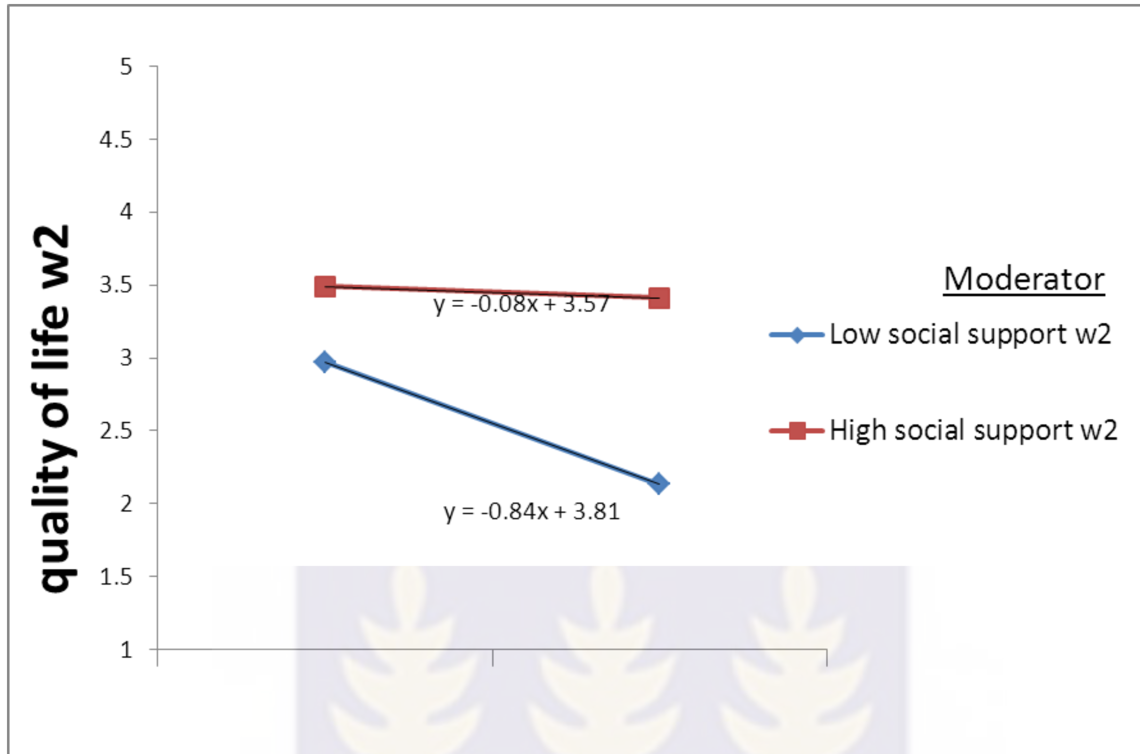

social support w2 dampens the negative relationship between depression w2 and quality of life w2 .

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APPENDIX G: Ethical clearance

UNIVERSITY OF GHANA
ETHICS COMMITTEE FOR THE HUMANITIES (ECH)

P. O. Box LG 74, Legon, Accra, Ghana

My Ref. No.................

27th January, 2016

Ms. Buruwaa Adomako
Department of Psychology
University of Ghana
Legon

Dear Ms. Adomako,

ECH 069/15-16: PERINATAL MENTAL HEALTH: EXAMINING ITS RELATIONSHIP WITH BIRTH OUTCOMES AND QUALITY OF LIFE AMONG WOMEN IN ACCRA

This is to advise you that the above reference study has been presented to the Ethics Committee for the Humanities for a full board review and the following actions taken subject to the conditions and explanation provided below:

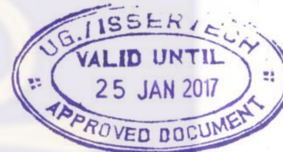
Expiry Date: 25/01/17

On Agenda for: Initial Submission

Date of Submission: 3/12/15

ECH Action: Approved

Reporting: Bi-Annually



Please accept my congratulations.

Yours Sincerely,

Rev. Prof. J. O. Y. Mante
ECH Chair

CC: Prof. C. C Mate- Kole, Department of Psychology, University of Ghana

Tel: +233-303933866 Email: ech@ug.edu.gh | ech@isser.edu.gh