

UNIVERSITY OF GHANA

DEPARTMENT OF PSYCHOLOGY



**EXCLUSIVE BREASTFEEDING AND PSYCHOLOGICAL HEALTH OF LACTATING  
MOTHERS IN ADENTAN MUNICIPALITY, ACCRA**

**BY**

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**DECLARATION**

I hereby declare that this thesis is the outcome of my own research and has not been presented by anyone for any academic award in this university or any other university. All references used in this work have been duly acknowledged. I am therefore solely accountable for any shortcomings of this research work.

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## **DEDICATION**

I dedicate this work to the Almighty God, for the gift of life, strength and wisdom for putting together this work. I also dedicate this thesis to my Dad, Mr. John King Davis, and my Siblings, Yvonne, Shirley, John and Justice Davis, for all their immense support for my education. Finally, I dedicate this thesis to a very good friend and colleague of mine, Kenneth Owusu Ansah, for all the support and encouragement during my difficult moments while preparing this thesis. God bless you all.

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## ABSTRACT

Exclusive breastfeeding is recommended globally by the World Health Organization, and this feeding method influences mothers' psychological health. Hence, the current study investigated the direct influence of breastfeeding self-efficacy and internal health locus of control, on well-being. It also looked at the moderating role of faith in breast milk in the relationship between self-efficacy and well-being, as well as the effects of some demographic variables on internal locus of control and well-being, among breastfeeding mothers in Adentan Municipality, Accra. Breastfeeding experiences and its impact on well-being was also explored. Both quantitative (cross-sectional survey) and qualitative (focus group discussion) data were collected. A sample of 130 exclusive breastfeeding mothers from four health facilities took part in the quantitative study, while 4 focus groups consisting of 8 participants each were used in the qualitative study. Hierarchical Multiple Regression was conducted on the quantitative data. In consonance with the hypotheses, mothers with higher breastfeeding self-efficacy and those with higher internal locus of control had higher psychological well-being (adjusting for various variables) as compared with mothers with lower breastfeeding self-efficacy and those with lower internal locus of control. The moderating role of maternal age was supported. However, the moderating role of faith in breast milk wasn't supported. Thematic Analysis was used to analyze the qualitative data and out of that, seven themes were generated. These include negative experiences, positive experiences, causes of negative experiences, causes of positive experiences, coping mechanisms, negative and positive impact of the experiences. The results imply that Clinicians are to consider screening to ascertain the level of these psychological factors among breastfeeding mothers. Additionally, clinicians are to design educational interventions with element of cognitive skills, problem solving and self-efficacy training to equip mothers with

skills to overcome any difficulty. Lastly, the breastfeeding policy in Ghana needs to be amended by extending maternity leave beyond 12 weeks. The limitations and suggestions for future research are also highlighted.

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**LIST OF ABBREVIATIONS**

EHLC.....External Health Locus of Control

H & H.....Hill and Humenich Lactation Scale

HLCT.....Health Locus of Control Theory

IHLC.....Internal Health Locus of Control

MHLC.....Multidimensional Health Locus of Control

WHO.....World Health Organization

UNICEF.....United Nation International Children's Fund

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background of the study

The procreative cycle of all mammals encompasses both pregnancy and breastfeeding and in the absence of breastfeeding, none of the species, including man could have survived. World Health Organization (WHO, 2008) clearly defines breastfeeding as a child receiving breast milk directly from the breast or expressed. Literature posits that there are three methods of infant feeding; exclusive breastfeeding, exclusive formula feeding and breastfeeding in addition to formula feeding. Of the three methods, WHO (2008) recommends that exclusive breastfeeding should be practiced within the first six months of an infant's life in order to achieve optimal growth and development for the child. Exclusive breastfeeding refers to instances where an infant receives only breast milk from his or her mother or a wet nurse, or expressed breast milk, and no other liquids or solids with the exception of drops or syrups consisting of vitamins, mineral supplements, or medicines (WHO, 1991). According to WHO Global Strategy for Infant and Young Child Feeding (WHO, 2003), supplementary foods can be combined with breastfeeding after six months up to two years or more.

In 2001, the World Health Organization recommended for the consideration of its member states that babies should be exclusively breastfed for the first six months of their lives. Among the various Western Countries, 65% of European member states and the United States opted not to abide by this recommendation fully, or at all (Authority, 2011). The importance of breastfeeding in the developing and semi-developed countries is well recognized. This is because the developing and semi-developed countries suffer from malnutrition. However, less consensus exists about its importance in developed countries, as they do not suffer

from malnutrition or poor health care. As such, with few exceptions, breastfeeding duration is shorter in these developed countries than in those that are resource-poor (Cesar & Victoria, 2016). Based on sound scientific evidence, both the WHO and United Nations International Children's Fund (UNICEF) have recommended that exclusive breastfeeding for the first six months of an infant's life is the most efficient and effective practice of infant feeding (WHO/UNICEF, 2010). This confers several short-term benefits to the infant, as well as long-term benefits in subsequent years. Pound and Unger (2012) noted that exclusive breastfeeding is beneficial for infants and children's physical and emotional health. Breast milk provides relevant nutrients to meet the growth needs of the infant (Castro, Glover, Ehlert & O'Connor, 2017). For the growing infants and children, exclusive breastfeeding has been associated with lower blood pressure and lower body mass index (BMI) (Dais & Figueiredo, 2015), higher cognitive development (Castro, Glover, Ehlert & O'Connor, 2017), reduction in severe infections such as botulism, otitis media and lower respiratory infections (Heinig, 2001), and vital protection against diabetes and obesity (Mayer-Davis, Rifas-Shiman, Hu, Colditz & Gillman, 2006; Owen, Martin, Whincup, Smith & Cook, 2006). The benefits of exclusive breastfeeding to the mother has also been acknowledged. Exclusive breastfeeding has been associated with the reduction in type 2 diabetes and breast and ovarian cancer. Again, early termination of breastfeeding is associated with high risk of maternal postpartum depression (Ip et al., 2007).

In developing countries like Ghana, lack of breastfeeding becomes a real threat for infants' survival because the setting/environment already suffers from malnutrition, poor health care, poverty, lack of clean water and other killer diseases such as malaria. Rozga, Kerver and Olson (2015) noted that breastfeeding is a free, useful resource for low income families. In a Lancet commissioned review on breastfeeding, Mogre, Dery and Gaa (2016) concluded that

achieving optimal exclusive breastfeeding would reduce all infant mortality by 13%. There is therefore the need to promote and support breastfeeding to enhance infants' growth, immunity and prevention of diseases and subsequent mortality (Oddy et al., 2003). Ghana has developed, adopted and implemented several policies to enhance exclusive breastfeeding for infants within the first 6 months. This began with the adoption of the 1991 Baby-Friendly Hospital Initiative, following the Innocenti Declaration by WHO/UNICEF in 1990, to enable mothers to breastfeed their babies for the best start in life. In Ghana, this policy is regulated by ensuring that the child is introduced to breast milk within 30 minutes to one hour after delivery. Baby-friendly hospitals and health centers do not accept breast milk substitutes, feeding bottles or teats, and have implemented the ten steps to breastfeeding, which include having a written breastfeeding policy that is routinely communicated to all staff, among others. Ghana subsequently enacted the Ghana Breastfeeding Promotion Regulation 2000 (Legislative Instrument, 1667) as well as promoted and implemented several policies including prevention of marketing of infant formulae/bottle foods. However, surprisingly, and in line with global trends, initiation of breastfeeding is on the increase, yet continuation rates are low (McAndrew et al., 2012). In 1999, while the breastfeeding initiation (99%) and duration (average of 22 months) were encouraging, only 35% of infants between 0-3 months old were breastfed, and this reduced to 6.4% among babies who were 6 months old (Ghana Statistical Service, 1999). Only 39.2% of 4-5 month old babies were exclusively breastfed in 2003 (Ghana Demographic and Health Survey, 2003). Danso (2014) noted that approximately 84% of mothers exclusively breastfed by 2 months but only 49% continue by 4 months. These exclusive continuation rates are woefully below the WHO recommendation of 90% coverage of exclusive breastfeeding up to six months (WHO, 2002). This low practice has been associated with series of challenges encountered by

breastfeeding mothers. Some of these challenges are short duration of maternal leave, societal-cultural pressure to introduce infants to water and formula, belief in the insufficiency of breast milk, among others (Diji et al., 2016).

Feeding methods adopted by lactating mothers could have an influence on their psychological health. Mothers who exclusively feed their infants with formula are known to experience higher levels of psychological distress such as depression, anxiety and stress (O'Donnell, 2015). Similarly, mothers who adopt the formula-feeding method after initially relying on breastfeeding also suffer higher levels of these mental distresses (Hegney, Fallon & O'Brien, 2008). This assertion has been supported by Mezzacappa (2004), who reported that the act of breastfeeding is accompanied with diminished neuroendocrine response to stressors and reduced negative mood. The study went on to explain that breastfeeding exclusively is associated with the reduction of the activation of the sympathetic nervous system which is responsible for stress response. Conversely, exclusive breastfeeding triggers the parasympathetic nervous system for the release of endorphins which act on the vagus nerve to trigger relaxation, thereby reducing stress levels. In the same study, it was reported that bottle feeding may influence the increased activation of the sympathetic nervous system and decrease the activation of the parasympathetic nervous system.

The relationship between infant feeding methods and mother's psychological health is bidirectional. Just as method of feeding adopted by the mother influences her psychological health, the mother's psychological health also influences her ability to initiate and sustain breastfeeding (Dennis & McQueen, 2007). Mothers who are psychologically unstable (stressed, anxious, depressed) during the puerperium period experience unsuccessful breastfeeding. According to Lau, Hurst, Smith and Schanler (2007), the higher the stress level, the more likely a

mother will discontinue breastfeeding, and the higher the depression, the less likely her milk production. Again, stress during labor and delivery is associated with delayed initiation of breastfeeding. In terms of depression, it has been reported that mothers who experience depressive symptoms are less likely to initiate or continue breastfeeding, are unsatisfied with their infant feeding methods and experience a lot of breastfeeding difficulties (Dennis & McQueen, 2007; Seimyr, Edhord, Lundh & Sjogren, 2009). During postpartum depression and breastfeeding failure, certain neuroendocrine mechanisms are affected. This includes the placental steroids and the lactating hormones. When these hormones are affected, there is less production of milk, which leads to discontinuity of exclusive breastfeeding (Stuebe, Grewen, Pederson, Propper & Meltzer-Brody, 2012).

The decision to initiate exclusive breastfeeding and the ability to sustain it in order to meet the WHO's recommendation of 90% significantly depends on the mother, since it requires both physical and mental fitness of the mother. Breastfeeding mothers need to be physically healthy in order to initiate and continue breastfeeding. Breastfeeding is an activity which requires extra energy and effort, which can only be given by healthy mothers. Again, the nutritional need of the baby depends on breast milk. Breast milk is made from the nutrients in the mother's bloodstream, therefore unhealthy mothers cannot breastfeed well due to inadequate nutrients needed for milk production. Additionally, mothers who go through caesarean section during delivery are often not able to initiate or sustain breastfeeding, mostly because they feel physically weak and need to recover their strength (Hobbs, Mannion, McDonald, Brockway & Tough, 2016). Furthermore, obese and overweight people are referred to as unhealthy, and therefore have difficulty initiating and sustaining breastfeeding. This has been supported by

Kitsantas and Pawloski (2010), who suggested that obese and overweight mothers with medical/obstetric conditions are less likely to initiate or continue breastfeeding.

Lawal and Idemudia (2017) acknowledge that for a mother to be able to breastfeed as recommended, she has to be psychologically sound. Few studies have looked at some psychological factors associated with breastfeeding. These factors have been noted to be influential in promoting or hindering the initiation and continuation of breastfeeding (Forster, McLachlan & Lumley, 2006; Scot, Binns & Oddy, 2006). These psychological factors have been known to have direct and interactive effects on the mothers' psychological health. These psychological factors include breastfeeding expectation, autonomous motivation, dispositional optimism, breastfeeding expectations, anxiety and planned duration of breastfeeding (Kadzikowska-Wrzosek, 2016; O'Brien, Bulkstra & Hegney, 2008). Other psychological factors including breastfeeding self-efficacy, faith in breast milk, and health locus of control, also influence psychological health. However, these factors have received less attention from previous studies, hence the need for further investigation.

For a mother to breastfeed, she must have confidence in the ability to feed the new born baby, and this is what is termed as breastfeeding self-efficacy (Lawal & Idemudia, 2017). Breastfeeding self-efficacy has mostly been correlated with mental health issues. Mothers' self-confidence on breastfeeding promote their mental well-being. Thus, mothers who have high confidence in their ability to breastfeed their infants are able to cope well with the challenges associated with exclusive breastfeeding (sore nipples, cracked nipples, engorged breasts, among others) and are able to practice exclusive breastfeeding for the recommended period, which leads to improved psychological well-being. According to Otsuka et al. (2014), improved breastfeeding self-efficacy influences exclusive breastfeeding, and this leads to reduction of

varying psychological distress among breastfeeding mothers. Mothers build this self-confidence through various forms of experiences, thus through vicarious learning, verbal persuasion, and physiological dimension. For instance, some breastfeeding mothers gain self-confidence in breastfeeding by receiving praises from their partners, mothers and friends (Kingston, Dennis & Sword, 2007).

Health locus of control has also been found to have a strong impact on the psychological well-being of mothers (Green, 2004). Rotter defines locus of control as an individual's beliefs about the position of forces which control his/her life. Correspondingly, Zahednezhad, Poursharifi and Babapour (2011) refer to locus of control as an individual's belief about forces (internal or external) that regulate his/her health. Individuals with external locus of control accept the notion that certain external forces (fate, luck or significant others) are responsible for their health, whereas people with internal locus of control believe they are the ones responsible for their own health (Abredari et al., 2015). Mothers with internal locus of control take steps to handle certain difficulties associated with breastfeeding, therefore are able to practice exclusive breastfeeding for the recommended period, leading to improved psychological well-being. Meanwhile, mothers who believe that their health status depends on fate or luck may not take responsibility in taking care of challenges associated with breastfeeding, and so may end up not practicing exclusive breastfeeding, which leads to psychological distresses. For breastfeeding mothers to develop psychological well-being, they need to have confidence in breastfeeding and yet at the same time have mastery or control over their health-related behaviors. Hence, there is always a strong connection between breastfeeding self-efficacy and health locus of control on psychological well-being, particularly environmental mastery (Lawal & Idemudia, 2017).

Faith in breast milk is a person's belief in the sufficiency of breast milk for infants (O'Brien et al., 2008). Faith in breast milk refers to mother's belief that breast milk is just enough and sufficient for the baby, and that if she feeds the child with breast milk alone, she can be sure and certain that the child is getting everything he/she needs nutritionally. Mothers who do not have faith in breast milk believe that breast milk alone is not sufficient for their babies and that they need to give additional feed. This lack of faith results in the mothers not practicing exclusive breastfeeding, and such mothers may suffer the consequence of it (poor psychological health). Meanwhile, mothers who believe that breast milk is sufficient for their babies engage in exclusive breastfeeding, which improves their psychological health. The duration of breastfeeding has been distinctively predicted by faith in breast milk, breastfeeding self-efficacy and planned breastfeeding duration (Hegney et. al., 2008; O'Brien et al., 2008).

Besides the above psychological factors, maternal age also influences mothers' tendency to breastfeed, which in turn influences their psychological well-being. Adolescent mothers usually lack the confidence to breastfeed due to their age and lack of experience. As such, they are less likely to practice exclusive breastfeeding, which leads to poor psychological health (Dykes, Moram & Edwards, 2003). However, there are conflicting results from studies that looked at maternal age, parenting behavior and mental health of mothers (Bettina, Amy, Brandon, Alian, & LeMaster, 2012; Jones, Kogan, Singh, Dee, & Grummer-Strawn, 2011). Some studies have found a significant positive relationship between maternal age and depression (Boivin et al., 2009; Iwata, Mori, Aoki, Maehara & Tamakoshi, 2016). However, others found a significant positive correlation between maternal age and psychological well-being. Mothers within the maternal age period (above 18 years) who have confidence in breastfeeding primarily have self-confidence, while those within the maternal age period with internal health locus of

control generally have a sense of autonomy, a positive relationship with others, and self-acceptance (Lawal & Idemudia, 2017; McMohan et al., 2015). Aside maternal age, other demographic variables identified in the literature include educational background, employment status, position of child, among others (Hegney et al., 2008).

Indeed, just as the aforementioned psychological factors influence well-being, maternal breastfeeding experiences also influence exclusive breastfeeding and well-being (Hegney et al., 2008). Quite a number of studies have been done on breastfeeding mothers in Ghana (Danso, 2014; Diji et al., 2016; Mogre, Dery & Gaa, 2016, Otoo, Lartey & Perez-Escamilla, 2009; Tawiah-Agyemang, Kirkwood, Edmond & Hill, 2008). Tawiah-Agyemang et al. (2008) focused on exploring the experiences these mothers go through and findings reported include not having enough breast milk, the belief that milk arrives on the third day after birth, some massaging the breast with shea butter and washing breasts with herb to aid in milk production, among others. Additionally, Diji et al. (2016) explained that breastfeeding mothers are faced with a number of challenges such as short maternity leave, which make it difficult for them to accomplish the 6 months exclusive breastfeeding. Other studies conducted outside Ghana reported mothers having such feelings as being watched and judged, discomfort, guilt, tiredness, isolation, feeling reluctant and embarrassed to seek help (Dyke, Moran, Burt & Edwards, 2003; Hegney et al., 2008).

## **1.2 Problem Statement**

Despite the scientific evidence that exclusive breastfeeding has such benefits as reducing infant morbidity and mortality and benefiting the mother at large, implemented policies and intervention programmes to realize its success have achieved less outcome (Aidam, Perez\_Escamilla, Lartey & Aidam, 2005; Cai, Wardlaw & Brown, 2012). Earlier studies have

focused on the benefits of breastfeeding (Kuchenbecker et al., 2015; Senarath et al., 2010) and the outcomes were what fed into the existing programmes with their subsequent lower outcomes.

Several factors have been identified to be associated with the initiation and continuation of exclusive breastfeeding. These factors include socio-demographic factors (employment status, age of mother, social support), biosocial factors (production of breast milk) cultural factors (pressure from family and friends to introduce water and other feeds) and employment policies (short maternal leave) (Aidam, Perez, Escamilla, Lartey & Aidam, 2005). However, the above factors are not the only factors influencing breastfeeding behavior given that some psychological factors have also been found to be influential in breastfeeding behavior (O'Brien et al., 2008). There have been quite a number of studies done on breastfeeding and breastfeeding mothers in Ghana (Danso, 2014; Diji et al., 2016; Mogre, Dery & Gaa, 2016, Otoo, Lartey & Perez-Escamilla, 2009; Tewiah-Agyemang et al., 2008). Similarly, quite a number of studies have been done outside Ghana on breastfeeding mothers (Folayan & Sowole, 2013; Mezzacapa, 2004; O'Donnell, 2015), yet little attention has been focused on the psychological well-being of the breastfeeding mother. What is under-researched and less-factored into intervention promotion programmes is the influence of psychological factors on breastfeeding behavior and the psychological health of breastfeeding mothers, as well as breastfeeding experiences and their effects on well-being. Hence, a high research and policy priority is to explore the experiences breastfeeding mothers go through and how it affects their well-being, examine how certain psychological factors such as breastfeeding self-efficacy and health locus of control directly influence mother's psychological health and to also investigate how other modified variables such as faith in breast milk and maternal age indirectly influence mothers' psychological health.

### **1.3 Aims/ Objectives**

The main objective is to explore the experiences of breastfeeding mothers and to examine the influence of some psychological factors related to exclusive breastfeeding on the mother's well-being.

### **1.4 Specific Objectives**

Specifically, the study aims to explore the following:

1. Determine the relationship between breastfeeding self-efficacy and internal locus of control on psychological well-being.
2. Determine the moderating effect of faith in breast milk on the relationship between self-efficacy and psychological well-being.
3. Investigate the extent to which maternal age would moderate the relationship between internal health locus of control and psychological well-being.
4. Explore maternal breastfeeding experiences and their psychological well-being.

### **1.5 Relevance of the study**

Understanding the dynamics of breastfeeding, especially the influence of some psychological factors on the psychological health of breastfeeding mothers in Ghana will be a merit towards national development. Thus, the outcome of this study will inform primary healthcare givers by educating them on the kind of experiences breastfeeding mothers go through, and how these experiences influence breastfeeding behavior. Again, they will get to understand how some psychological factors influence the mother's psychological health, all aiding them to plan and carry out intervention programmes such as organizing outreach mental health services, as well as preparing and giving of mental health education to breastfeeding

mothers and the public at large. Moreover, this study will provide recommendations for appropriate breastfeeding policies which will be geared towards achieving WHO's target (90%) on exclusive breastfeeding. These recommendations will be based on the theories, literature reviewed and field work. The knowledge gained from this study will also add up to existing knowledge on factors influencing breastfeeding behavior, and will also inform other researchers on the need to indulge in studies that aim at the psychological health of breastfeeding mothers. Lastly, another significance of this study is its relevance in clinical settings. Based on the outcome of this study, appropriate practitioners such as clinical psychologists who have in-depth knowledge about the psychological health of people, would be incorporated when dealing with mental health issues of women in their reproductive ages, in order to have psychologically healthy mothers to achieve optimal exclusive breastfeeding.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0 Introduction

To begin with, the chapter covers discussions on locus of control within the Social Learning theory, its application in health behavior (Health Locus of Control) and how it can be applied to breastfeeding mothers. Second, it explains the self-efficacy perception and how the self-efficacy model is applicable to breastfeeding behavior. Third, scientific literature from across the globe is reviewed to improve the understanding of the area. The chapter then presents the rationale of the study, conceptual framework, statements of hypotheses and research questions, as well as operational definition of terms.

#### 2.1 Theoretical Framework

In the current study, our understanding of psychological factors influencing exclusive breastfeeding and psychological health comes from the complementary contributions of Health Locus of Control (HLCT) and Self-Efficacy Theories. The HLCT suggests a better understanding of psychological factors influencing psychological health, by explaining that some women practice exclusive breastfeeding due to what they expect in return (having a healthy baby). Some place value on having a healthy baby and feel a sense of accomplishment (improved psychological health) as others compliment them for practicing exclusive breastfeeding and being a good mother. The Health Locus of Control is the application of Locus of Control in health-related issues. This helps to explain how breastfeeding mothers need environmental mastery to face difficulties associated with exclusive breastfeeding, to accomplish good psychological health. On the other hand, the self-efficacy model helps to explain how breastfeeding mothers need confidence to be able to practice exclusive breastfeeding for

improved psychological health. These two constructs go hand in hand to best explain how some psychological factors influence exclusive breastfeeding and psychological health of breastfeeding mothers. In the following paragraphs, these theories are reviewed.

### **2.1.1 Health Locus of Control (Wallson & Wallson, 1978)**

Health locus of control is the application of the construct locus of control in relation to health, which was developed from the social learning theory by Rotter (1966). According to him, the possibility of a particular behavior occurring varies depending on: (a) the expectancy that a specific reinforcement will arise as a result of the behavior; (b) the value placed on the expected reinforcement; and (c) the psychological aspect of the situation, which is the kind of meanings the individual will attach to the different aspects of the situation (Rotter, 1982). For example, a mother's decision to exclusively breastfeed the infant depends on the expectation that exclusive breastfeeding will result in a desired reinforcement such as having a healthy baby, the kind of value the mother places on having a healthy baby, and the meaning attached to such a situation (for example, whether others will see her as a good mother for having a healthy baby as a result of practicing exclusive breastfeeding). Reinforcement, per this theory, is any act, circumstance, or an incident which affects the individual's drive towards achieving a goal. Accordingly, positive reinforcement refers to any result that increases the possibility that a behavior will occur (Rotter, 1982).

Numerous variables influence the expectancy of a reinforcement happening as the result of a specific behavior. Expectancy is influenced by both an individual's previous experiences in a specific situation and the overall expectancies for behaviors resulting in reinforcements in similar situations. The concern as to whether an individual sees a causal relationship between a behavior and the reinforcement that follows is an aspect of generalized expectation. An

individual cultivates generalized expectancies that: (a) a specific reinforcement happens strictly from the individual's behavior or (b) reinforcement results from other elements such as chance, luck, fate and powerful others. In situations where reinforcement is seen as the consequence of one's own behavior, internal expectancies for reinforcement is expected, however, circumstances where reinforcement is perceived as a result of other elements, external expectancies for reinforcement is expected (Rotter, 1982).

When an individual perceives a reinforcement as consequential, the reinforcer would be weakened or buttressed depending on whether the consequence is desirable. For instance, if a mother believes that the good health of her previous child was as a result of faith, luck or the works of the doctor or nurse, the mother may be less likely to exclusively breastfeed, than a mother who perceives that the good health of her previous child was as a result of exclusively breastfeeding the child, all things being equal. As such, the probability of a particular behavior being repeated is influenced by whether previous behavior reinforcements were perceived as caused by internal or external factors. Locus of control is a continuous variable which takes the normal distribution curve in every population, both internal and external expectancies are evenly distributed within individuals (Rotter & Hochreich, 1975). Scientific study has shown that people with internal expectancies are expected to: (a) be more focused on those aspects of the environment which give valuable facts for their future behavior; (b) take necessary steps to develop their environmental conditions; (c) attach greater value on ability or achievement reinforcements and be largely more alarmed with their ability, especially their failures; and (d) be resistant to elusive efforts to influence them (Rotter & Hochreich, 1975). Presson and Benassi (1996) concluded that those with external expectancies (powerful others and chance locus of control) were more related to higher levels of depression than those with internal expectancies.

Again, those without internal expectancies of control were associated with higher levels of depression. Even though it is generally perceived that people with an internal locus of control are psychologically healthier than those with an external locus of control, either end of the continuum could be problematic (Rotter & Hochreich, 1975).

Wallston and associates stipulated that Health Locus of Control refers to the extent to which individuals believe that their health is controlled by either external or internal factors (Wallston & Wallston, 1978). Individuals with internal health locus of control (IHLC) have the belief that their health condition is strictly dependent on their own actions. Those individuals with external health locus of control (EHLC) have the belief that their health status is determined by external forces such as luck, fate or chance, or under the influence of significant others, example doctors and nurses. This construct is mostly assessed using the Multidimensional Health Locus of Control (MHLCS) scale published in the year 1982 by Wallston, Wallston and DeVellis. The scale has three dimensions of health-related expectancies of control. The internal health locus of control expectancies (IHLC) and the external health locus of control which has two components; a person's expectancies that powerful others (doctors, nurses, friends, relatives) control his/her health (PHLC) and expectancies that chance factors (chance, fate, luck) control health.

This theory, which is not widely used in breastfeeding literature, has been noticed to be important in the exclusive breastfeeding duration. Based on scientific evidence, women with high level of internal locus of control do plan to breastfeed their infants and so engage in positive health related actions (indulging in exclusive breastfeeding) than those who have an external locus of control (Haslam, Lawrence & Haefeli, 2003). In reference to locus of control theory (Rotter, 1966; Wurtele, 1986), it is likely that women with a high internal locus of control may

engage in problem-focused coping style (continues breastfeeding despite sore nipples) when faced with breastfeeding difficulties. This act will increase their confidence, fortify their intent to exclusively breastfeed and in turn influence their psychological well-being.

### **2.1.2 Self-Efficacy Theory**

Resulting from Bandura's Social Learning Theory, self-efficacy is a cognitive process of an individual's confidence in his/her perceived ability to control or regulate their thought process, motivation, emotional state and the social environment in performing certain specific task or behavior (Bandura, 1986). Many studies have attested to the fact that self-efficacy has a causal as well as correlational association in predicting health behaviors. Based on this theory, an inventory has been developed to measure those with high or low self-efficacy. Self-efficacy is an important factor in the performance of certain behaviors since it depicts one's perception about his/her abilities, not the true abilities (Bandura, 1986). Thus, the self-efficacy perception is associated with the belief about the ability to carry out certain behaviors in specific situations and not reflective of one's personality characteristics that function in isolation of contextual factors (Bandura, 1986). In view of the above, it can be said that one's self-efficacy expectations are situation-specific.

The Self-efficacy theory adopted from the behavioral sciences is one of the widely used frameworks in the area of breastfeeding, and can be applied to breastfeeding and the psychological health of breastfeeding mothers. Empirically, the model explains how individuals tend to engage in and pursue the tasks they believe they have mastery in, and avoid tasks they believe they do not have absolute control over. Self-efficacy inspires individuals' behavior attempts and the extent to which they set and commit to achieving a goal. The importance of self-efficacy on the decision to initiate and continue breastfeeding for the recommended period is

empirically supported. Self-efficacy influences the mother's choice, motivation, pattern and emotional reaction, as well as goal accomplishment, by influencing the level of effort and persistence the mother will put in to be able to breastfeed. The stronger the self-efficacy, the more active our effort. High self-efficacy results in more effort and persistence, which help the mother gain corrective experiences, resulting in improved psychological well-being. On the contrary, low self-efficacy leads to lack of initiation or premature discontinuity which results in psychological distress.

In the self-efficacy model, Person refers to the individual, thus the mother's perception about breastfeeding. Behavior denotes the mother's actions, thus deciding to initiate breastfeeding, the amount of effort she will incorporate, and the level of persistence she will have irrespective of the difficulties associated with breastfeeding. Outcome means being able to accomplish exclusive breastfeeding for the recommended period of six months, which will influence the mother's psychological health. Information sources comprising of performance accomplishment, vicarious experience, verbal persuasion and self-appraisal, influence efficacy expectation, which in turn influences a mother's behavior. Outcome Expectation also influences the relationship between behavior and outcome. Mothers who expect to improve their well-being through breastfeeding will be highly motivated to engage in it, which will eventually yield their expectation of improved psychological well-being.

### The Self-Efficacy Model

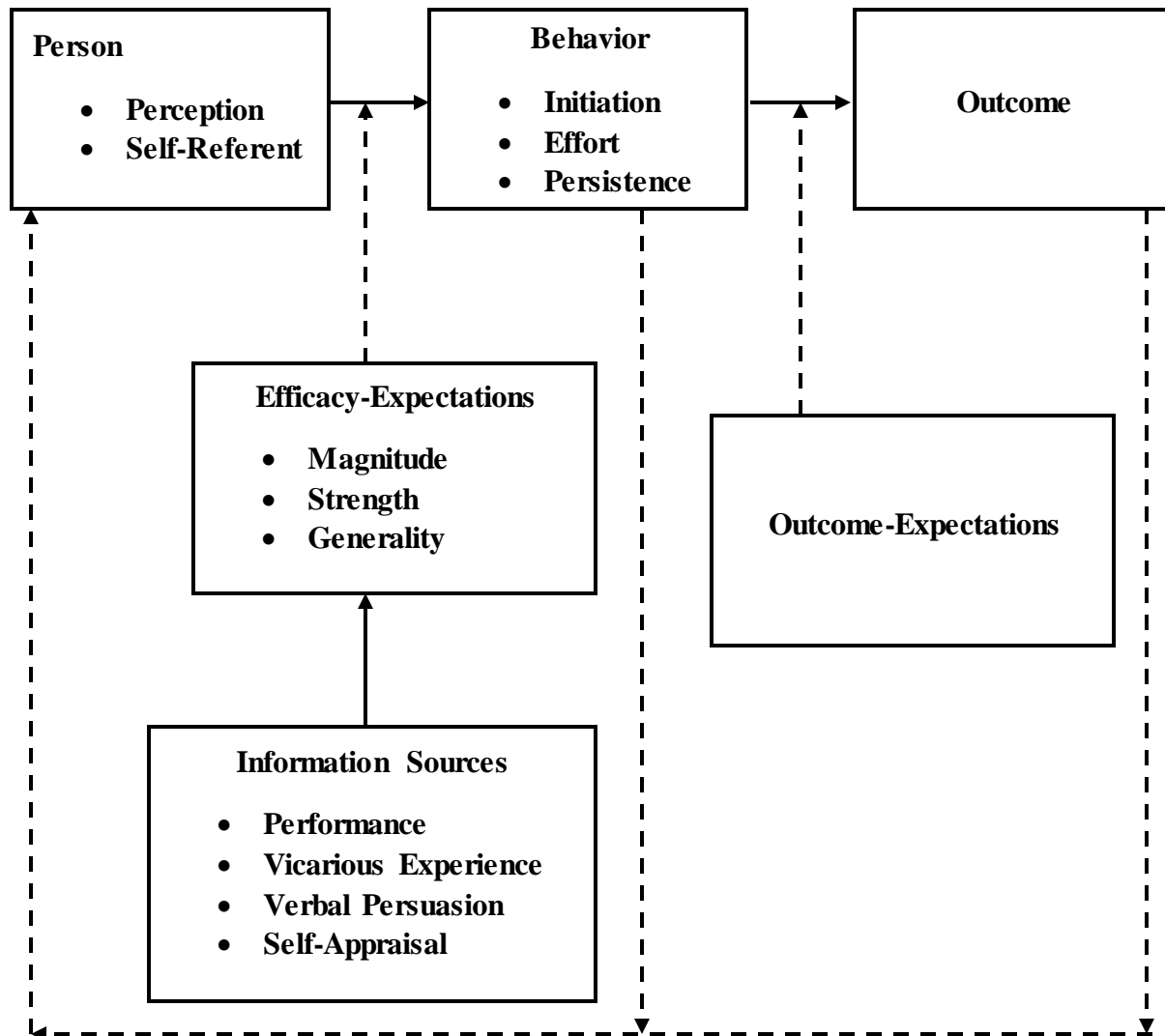


Figure 1. A diagram explaining how an individual achieves self-efficacy

### 2.2 Review of Related Studies

Apart from the theories explained above, this section considers various studies and findings that best support the researcher in explaining the likely effects of the variables considered for the study as well as help formulate hypotheses for the study.

### **2.2.1 Self-efficacy and psychological well-being**

There has been a significant number of empirical studies that have investigated the relationship between self-efficacy and psychological well-being. Irrespective of the substantial amount of literature available in the area, among breastfeeding mothers, the attention it has received is quite low. Self-efficacy tends to be one of the factors which determines whether a mother will be able to practice exclusive breastfeeding for the recommended period of six months, which in turn influences her psychological well-being (Lawal & Idemudia, 2017). Women who have higher self-efficacy have better coping skills which help them deal with the challenges associated with breastfeeding. Most mothers seem to have high breastfeeding self-efficacy. A study which took place in China by Kadzikowska-Wrzosek (2016) emphasize on the fact that a mother's decision to quit breastfeeding is sturdily influenced by feelings such as physical or psychological fatigue, and that women with higher levels of breastfeeding self-efficacy are able to better cope with difficulties associated with breastfeeding and continue to breastfeed for longer period. Results revealed that self-efficacy is a significant predictor of the frequency of experiencing positive emotions, negative emotions, and somatic stress symptoms. Thus, the higher the breastfeeding self-efficacy, the more frequently the mother experienced positive emotions (happiness, satisfaction, joy, love, affection, commitment and attachment) and the less likely they were to experience fear (concern, anxiety, dread). Again, the results confirmed that the higher their breastfeeding self-efficacy, the less likely they were to experience fatigue, excessive sweating, abrupt heart rate changes, dyspnea and general asthenia. The higher the breastfeeding self-efficacy, the more positive the breastfeeding mothers' subjective experiences.

Following Kadzikowska-Wrzosek (2016), Thorsteinsson, Loi and Rayner (2017) revealed that self-efficacy accounted for a significant difference in perceived mental health quality of life. Thus, mothers with higher self-efficacy reported better functioning of both physical and mental health, while it is less likely for mothers with low self-efficacy to use suitable cognitive strategies to successfully reduce negative effects. Additionally, mother who have lower self-efficacy are easily discouraged from practicing exclusive breastfeeding when faced with challenges. This however leads to distress. This study is imperative, since it has helped us to understand the influence of self-efficacy and social support on the quality of life of parents with diabetic kids. Also, authors in this study requested that further studies need to be done using different populations. Hence, the current study seeks to replicate this study among breastfeeding mothers, in order to investigate whether similar findings would be obtained.

The correlation between self-efficacy and psychological well-being seems to be present irrespective of the gender being studied, and level of self-efficacy seems to be equal among the sexes. Thus, one particular sex does not have higher self-efficacy than the other. A study by Shamsul (2015) which took place in India reported a correlation between self-efficacy and psychological well-being among both male and female students. The study reported that the difference of self-efficacy between male and female undergraduates was not significant. The writer made emphasis on the fact that self-efficacy has a positive and significant impact on psychological well-being and that self-efficacy enhances one's psychological well-being. The study has made a good contribution to the knowledge base because although it is well known how self-efficacy influences well-being, knowledge on its differences between the sexes is limited.

Nonetheless, geographical location of people seems to have influence on their self-efficacy level but not on the relationship between self-efficacy and well-being. Thus, individuals from urban centers seem to have higher self-efficacy leading to well-being, compared with people from rural areas. In South Africa, a survey conducted by Roos, Potgieter and Temane (2013) revealed that individuals in transition who have higher self-efficacy reported having improved psychological well-being. In addition, participants from the urban area with high self and collective efficacy had higher psychological well-being than their fellows from the rural area who had lower efficacy. The study has made known how other forms of efficacy integrate to have an effect on psychological well-being. However, selection of participants was restricted to the South Africa leg of the PURE project, hence other eligible subjects were excluded. This makes generalization of the findings inappropriate.

Furthermore, age appears not to have any influence on the correlation between self-efficacy and well-being. Kvarme, Haraldstad, Helseth, Sorum and Natvis (2009) examined the association between general self-efficacy and health-related quality of life among 12-13year old school children. Results showed that higher degree general self-efficacy is significantly and positively associated with high degree of health-related quality of life even among school children. This study has demonstrated that self-efficacy plays a role in one's psychological health not only among adults but even among school children. However, the writer admitted that the response rate of 63% is quite low, hence generalization may seem impossible. The current study therefore seeks to put that into consideration.

### **2.2.2 Health Locus of Control and Well-Being**

Unlike other areas, the construct health locus of control has received little attention from researchers, and so its impact on the psychological well-being has also received less attention, especially among breastfeeding mothers. Green (2004) recommended that the construct (health locus of control) should be examined on other primary caregivers. In view of this, literature among different groups will also be reviewed. Again, Lloyd and Hasting (2009) made emphasis on the fact that locus of control may explain some variance in one's well-being and that such construct requires more attention in the field of research.

Irrespective of the group being studied, the link between locus of control and well-being is strong. A study by Garcia, Ramirez and Jariego (2002) examined the predictive role of social support and locus of control on psychological well-being in Moroccan and Peruvian immigrant women in Spain. They reported that certain aspects of locus of control significantly contribute to one's psychological well-being regardless of the group being studied. Again, it was reported that external locus of control related negatively to psychological well-being, while internal locus of control positively correlated with psychological well-being.

Similarly, a survey conducted in Nigeria by Lawal and Idemudia (2017) revealed that health locus of control was significantly associated with self-acceptance and sense of positive relationship with others. Again, health locus of control interacted with breastfeeding self-efficacy to have an effect on environmental mastery. This analysis implies that mothers with high internal health locus of control had positive relationships with others and higher self-acceptance. Additionally, mothers with high internal locus of control and self-efficacy experienced environmental mastery. This study has contributed to the very small knowledge obtained from literature with respect to health locus of control and psychological well-being. However, a

limitation of the study is with its sample - participants were strictly postnatal mothers. Other breastfeeding mothers were excluded. As such, the current study will integrate both postnatal, as well as other breastfeeding mothers who patronize both postnatal and child welfare services.

Additionally, the nature of one's locus of control determines how good one would function not just psychologically but physically as well. Thus, certain aspects of locus of control (internal locus of control) lead to improved psychological well-being as well as physical functioning, while external locus of control leads to poor psychological and physical functioning. For example, a study by Cross, March, Lapsley, Byrne and Brooks (2005) reported that those with higher internal locus of control experience less disability and pain, while those with higher external locus of control experience more pain and worse functioning. Thus, patients who had high internal locus of control were able to function well physically as well as psychologically, while patients who had high external locus of control functioned poorly both physically and psychologically.

However, one may have certain amount of both internal and external locus of control, but may have one being higher than the other. In addition, people who have internal locus of control do take charge of their health issues thereby seeking for relevant information to combat any health challenges in order to avoid distresses. Green (2004) reported that mothers who do not desire information about health feel greater burden of care. Mothers who have an internal locus of control beliefs and chance beliefs interact in their relationship to both aspects of well-being. Additionally, mothers who have high internal belief and belief in chance tend to reduce perceived subjective burden, while those with high belief in chance but low belief in internal locus of control feel more burdened by their task. This result shows how mothers who have an internal locus of control feel better psychologically, thereby handling their task properly with

less burden as compared with their counterparts who have chance belief, who feel more burdened, which may lead to poor functioning. The study recommended that the construct (health locus of control) should be examined on other primary caregivers. As a result of this, the current study is among breastfeeding mothers.

Irrespective of the age group being studied (students or adults), the relationship between the variables do exist. Thus, those who have internal locus of control function well psychologically. A study by Green (2011) supported this notion by indicating that students who have an internal locus of control have fewer symptoms of depression while those with high chance locus of control suffer more depressive symptoms. These findings would appear to support the belief that one's own actions can affect his/her health. It contributes to the very small body of research interested in questioning the global benefit of internal locus of control. However, a limitation of the study is the use of secondary data, which was meant for other purposes (pedagogical) other than research, and this might have contributed to the results obtained. In view of the above, the current study intends to collect primary data purposely meant for research purposes.

### **2.2.3 Age and well-being**

In the area of maternal age and psychological health, there are few studies that have looked at the relationship. Even though they are not much, some contention was raised in the area. While others reported that older age is significantly associated with psychological well-being among breastfeeding mothers, others reported a conflicting result that older maternal age is rather associated with psychological distress (Boivin et al., 2009; McMahon et al., 2011). Additionally, others reported that psychological distress may not be as a result of the age, but

may be due to other factors (McMahon et al., 2015). This contention needs further investigation for better understanding.

Some researchers made emphasis on the fact that maternal age is significantly associated with psychological well-being. A study carried out in Nigeria by Lawal and Idemudia (2017) reported that maternal age directly influences environmental mastery, which is an aspect of psychological well-being. Again, internal health locus of control and maternal age have an interaction effect on sense of autonomy, positive relations with others and self-acceptance. The researchers concluded by emphasizing that maternal age and other psychological constructs are vital for mothers to enjoy a good number of dimensions of psychological well-being. The study has helped to throw more light on maternal age and well-being, but its limitations, including using strictly postnatal mothers, excluding other exclusive breastfeeding mothers, make the results questionable. Hence, the current study would incorporate all breastfeeding mothers.

Additionally, women who have their firstborn at a later age have improved well-being as compared with women who have their firstborn at a younger age. According to McMahon et al. (2011), older maternal age is associated with lower depression and anxiety symptoms and greater psychological hardiness (resilience). They further explained that women who have their first child at an older age have a psychological advantage over their younger fellows, since they are more independent (less controlled by their partners), more resilient, and experienced fewer depressive symptoms as well as anxiety during pregnancy. This study has some loopholes that need to be spelled out. First of all, the study heavily relied on participants who are highly educated and well-resourced financially. More so, teenage mothers were excluded from the study. Hence, the current study would ensure that teenage mothers, less educated mothers and mothers with low financial status are included.

In contrast, while the above studies reported that older maternal age is associated with improved psychological well-being, the report from Boivin et al. (2009) revealed a different result in age group differences in maternal depression. It was reported that while younger mothers expressed warmth and fewer depressive symptoms, older mothers expressed less warmth towards a spouse and more depressive symptoms. Their results showed that mothers who are 38 years and above constantly experienced emotional distress than younger mothers. They explained that this difference between the mothers is mostly due to the age, as age comes with biological and relationship changes, and called out on the need to replicate how age influences psychological health.

While the above literature suggested that older maternal age is associated with psychological distress, other researchers assume that other factors may have contributed to the poor psychological health. McMahan et al. (2015) revealed that maternal age had no correlation with the prevalence of major depression episodes, but rather, poor child health and poor support among others are the predictors of depressive symptoms among breastfeeding mothers.

#### **2.2.4 Faith in breast milk and psychological health**

Globally, faith in breast milk has not received much attention in the area of breastfeeding, even though it has been identified as one of the factors influencing breastfeeding behavior or breastfeeding duration (O'Brien et al., 2008; Hegney et al., 2008). Some researchers in Ghana (Diji et al., 2016; Tawiah-Agyemang et al., 2008) have established the fact that this variable influences breastfeeding duration among Ghanaian women. However, to the best of the researcher's knowledge, none of these researchers focused on how the variable influences the mother's psychological health, allowing for a gap in research.

Faith in breast milk has been noted to be influential in the initiation of exclusive breastfeeding. The variable helps in determining whether a mother practices exclusive breastfeeding or not. A study conducted in Ghana by Mogre, Dery and Gaa (2016) reported that most mothers reported breast milk alone is not enough or sufficient for the child, and that the child may go hungry if they should practice exclusive breastfeeding. They continued by emphasizing on the fact that if they should practice exclusive breastfeeding, the child will die. The mothers explained that the death may be as a result of malnutrition, since the breast milk is not sufficient to provide all the nutritional needs of the child. The study restricted its sample to postnatal mothers, excluding mothers who sought for child welfare services, although they were also practicing exclusive breastfeeding. This made the sample not representative of the situation of exclusive breastfeeding mothers. Hence, the current study involves mothers seeking both postnatal and child welfare services, in order to have a more representative sample of the population.

The continuity of breastfeeding has been found to be influenced by the mother's faith in breast milk. Thus, a breastfeeding mother may initiate exclusive breastfeeding, but may discontinue before the recommended period because she might lose faith in the sufficiency of the breast milk. O'Brien, Buikstra and Hegney (2008) reported that the likelihood of a mother continuing to fully breastfeed increased by 36% for every one-point increase in faith in breast milk score. Again, the relationship between faith in breast milk and continuing breastfeeding was much predictive, indicating that the mothers were 70% more expected to add other forms of feeds in advance for each additional one-point decrease in the faith in breast milk score. This shows that when breastfeeding mothers have good faith in breast milk, they are more likely to practice exclusive breastfeeding. Conversely, mothers who have poor faith in breast milk are

more likely to introduce additional feed, which makes them prone to psychological distress. A loophole in this study was the fact that respondents were primarily married women or cohabiting women. Single mothers were excluded from the study. Again, mothers with difficulty in English Language were excluded from the study, and this could affect the findings. Furthermore, the reliability of the scale used for measuring faith in breast milk was .50, which is low. Hence, generalization of results might be questionable. The current study will use Hill and Humenick Lactation scale (H&H), which has a higher reliability ranging from 0.7 to 0.98 to measure faith in breast milk.

Furthermore, poor faith in breast milk is a belief which exists among both breastfeeding mothers and health workers. This implies that less will be done on the part of those health workers in encouraging mothers to practice exclusive breastfeeding. A study by Tawiah-Agyemang et al. (2008) reported that one of the major issues that came up was that the breast milk is not sufficient for the baby, as such the mothers cannot feed the babies on that alone. This makes the mothers resort to giving infant formula. Additionally, it was reported that not breastfeeding mothers alone have this belief, but health workers as well. This finding shows how the concept faith in breast milk influences Ghanaian mothers in their decision to practice exclusive breastfeeding. This study has made a great impact on the large global knowledge in the area of exclusive breastfeeding as it has revealed the fact that not mothers alone but some health workers also have this belief and as such, they sometimes compound the women's belief of having insufficient breast milk.

Mothers who practice exclusive breastfeeding and those who do not practice exclusive breastfeeding both have the perception of insufficiency of breast milk (poor faith in breast milk), but the perception is more prevalent in one group than the other. Hegney, Fallon and O'Brien

(2008) reported that the perception of insufficiency of breast milk for the baby was high among those mothers who had discontinued breastfeeding (55%) and just (20%) among mothers who continued. The perception of poor faith in breast milk was perceived as contributing to the mother's decision to discontinue exclusive breastfeeding. This finding has implications for existing literature. Existing literature posits that it is solely mothers who discontinue who have idealistic expectations as well as disillusionment. However, the finding suggests there is idealistic expectation and disillusionment even among continued breastfeeding mothers.

### **2.2.5 Breastfeeding Experiences and Psychological Health**

The area of maternal experiences in terms of breastfeeding has received quite an amount of attention from researchers across the globe, but much less in Ghana. Although there have been quite a few studies in Ghana on the subject (Diji et al., 2016; Tawiah-Agyemang et al., 2008), the focus was on attitudes, challenges and physical experiences. Acheampong (2015) focused on the psychological aspect, but looked at the psychosocial experiences of breastfeeding HIV positive mothers. Others have looked at the experiences of adolescent mothers (Dykes et al., 2003). However, how these experiences influence their well-being has been neglected, creating a gap in research.

Breastfeeding mothers have some negative perception on amount of breast milk being produced. Research on the experiences of breastfeeding mothers in Ghana involves a study by Tawiah-Agyemang et al. (2008), which revealed that some mothers believe there is insufficient breast milk, which compels them to add other feeds. Some held cultural beliefs about when breast milk arrives (third day after birth), which means feeding babies with other infant formula for the first few days. Others explained that they have to rub the breast with shea butter for days before they lactate, while some said they have to eat some kinds of food first. Other factors that

encourage early initiation included the belief that putting the baby to the breast stimulates the milk to flow, giving birth in a health facility, among others. This study has helped make a great contribution to knowledge, as it reported that some health workers have low faith in breast milk, therefore compounding the mothers' belief of having insufficient breast milk. However, the study focused on the experiences, neglecting the impact of those experiences on the mothers' well-being.

Apart from the negative perceptions that the mothers have, these mothers go through some challenges which compel some of them to discontinue practicing exclusive breastfeeding. Diji et al. (2016) carried out a survey in the Ashanti region of Ghana, where they revealed that the top three breastfeeding challenges of breastfeeding mothers were lack of faith in breast milk, short maternity leave and socio-cultural pressure to administer water and infant formula. Although these were the three most challenging factors, faith in breast milk topped among the three, indicating how powerfully this variable influences breastfeeding behavior and the well-being of the mother at large. However, this study relied solely on one health center, which is known to be a baby-friendly hospital. This hospital followed a breastfeeding policy, which enforced mothers to practice exclusive breastfeeding. The question is, what of the other health centers who do not have or follow any baby-friendly policies for their patients? Hence, generalizing the results of this study might be questionable. As such, the current study would look at both baby friendly hospitals as well as other health facilities.

Additionally, Brown and Lee (2011) reported some of the challenges these mothers go through as sore nipples, mastitis, and difficulty with latching, among others. Others also complained about the negative reaction they received from others regarding the method they have chosen. Again, some complained about the pressure from others to introduce other feeds

because they were denying or harming the children. A limitation of this study is that the authors relied on the internet source as a medium of selecting participants. Mothers who had little access to internet, especially the less educated, were not given the opportunity to share their experiences, and this could affect the results of the study. As such, the current study will use a face to face interviewer questionnaire in order to avoid respondents' bias.

Furthermore, some negative psychological experiences among adolescent mothers have also been identified in the literature. Dykes et al. (2003) indicated that breastfeeding mothers have the feeling of being watched and judged, lacking confidence, tiredness, discomfort, and sharing accountability. Based on the themes derived from the focus group discussion, it can be concluded that breastfeeding mothers experience a variety of psychological distress. A loophole of this study is that, the study used a total of 7 participants who took part in two separate focus group discussions, resulting in low external validity. More so, participants in this study were skewed towards mothers who had delivered for the first time. That is, only one multiparous mother was included in the study. Hence, the findings might not be applicable to multiparous mothers. The current study would ensure that both primiparous and multiparous mothers are involved, again, the current study will use four focus groups with a minimum of eight participants in a group.

Nevertheless, not all the experiences the mothers go through are negative. Some positive psychological experiences have also been identified. A study carried out in the United Kingdom by Brown and Lee (2011) revealed that mothers who practice exclusive breastfeeding experience high level of confidence and determination despite difficulties faced during the process. Again, mothers expressed the joy and comfort they experience when they are breastfeeding their baby. Other emotions such as pride, achievement and success were also raised.

Furthermore, mothers practicing exclusive breastfeeding as well as those who have discontinued both have idealistic expectation, and both have ways of dealing with challenges. Hegney et al. (2008) reported that women from both groups conveyed some idealistic expectations about breastfeeding and experienced psychological distress which is as a result of their breastfeeding problems. However, it was revealed that those who continued exclusive breastfeeding used some coping strategies and portrayed some personal qualities that helped them endure the difficulties experienced. This group reported they rely on trusted health professionals and share their experiences with peers. Meanwhile, those who discontinue breastfeeding expressed feeling of guilt and inadequacy and are more likely to feel isolated. The findings of this study have implications for existing literature. Existing literature posits that it is solely weaning mothers who have idealistic expectations as well as disillusionment. However, the findings suggested there is idealistic expectation and disillusionment even among continued breastfeeding mothers.

Based on the above literature review, it can be said that researchers have indeed thrown light in the area of psychological health. However, although they have tried to look at some psychological variables influencing ones' psychological health, the attention on caregivers is low, which needs further investigation, as Green (2004) recommended that these psychological variables should be examined on primary care givers. Additionally, there were some controversial issues which were raised in certain areas of the literature (age influences psychological health) which also need to be replicated for further examination and clarification. Boivin et al. (2009) recommended that further studies need to be done in the area for clarification. Furthermore, there were some novel psychological variables (faith in breast milk) which have not been researched on in terms of how it influences psychological well-being,

creating gaps in the literature. More so, most of these studies which investigated the correlation between psychological factors related to breastfeeding and well-being were all conducted outside West Africa. The only study known to have been conducted in West African was in Nigeria. The question is, what of Ghana? Will same results be obtained? Based on the above recommendations, gaps and controversies, the current study seeks to examine how faith in breast milk indirectly influences the mothers' well-being. Again, the study seeks to investigate how age influences mothers' well-being for further clarification and understanding.

In terms of experiences of breastfeeding mothers, much has not been done globally and the few studies carried out in Ghana looked at the attitude, challenges and the experiences of HIV mothers. Those outside Ghana focused on experiences of adolescent mothers, and the challenges of breastfeeding mothers. However, the experiences of breastfeeding mothers and its influence on psychological health has been neglected, creating a gap in literature. Hence, the current study will look at the experiences of breastfeeding mothers as a whole and how these experiences influence the well-being of the mothers.

### **2.3 Rationale for the study**

Reviewed literature on breastfeeding shows that, scientific studies have been conducted both within and outside Ghana on breastfeeding mothers (Berde & Yalcin, 2016; Danso, 2014; Diji et al., 2016; Mezzacappa, 2004). However, the aims of most of these previous studies were not centered on understanding the various dimensions of psychological well-being of breastfeeding mothers. Additionally, some studies have identified various psychological factors that influence breastfeeding duration, such as anxiety, adaptability, breastfeeding self-efficacy, faith in breast milk, among others (Blyth et al., 2004; Bottorff, 1990; Cooke et al., 2007; Hegney et al., 2007). Yet, how these psychological variables influence the well-being of breastfeeding

mothers has received little attention from researchers (Kadzikowsk-wrzosek, 2016; Lawal & Idemudia, 2017). Since few of these psychological factors have been shown to have direct and indirect influence on the psychological health of the mother, more of these factors, especially the novel ones (faith in breast milk), should be researched on to demonstrate how they directly or indirectly affect the psychological well-being of the breastfeeding mother. The experiences of breastfeeding mothers have been looked at (Diji, 2016; Tawiah-Agyemang et al., 2008), however, how these experiences influence the well-being of the mother has largely been ignored, hence the need to explore how these experiences influence the well-being of the mother.

## **2.4 Hypotheses**

1. There will be a significant positive relationship between breastfeeding self-efficacy and internal locus of control on psychological well-being after controlling for potential covariates.
2. Maternal age will moderate the relationship between internal health locus of control and psychological well-being.
3. Faith in breast milk will moderate the relationship between breastfeeding self- efficacy and psychological well-being.

## **2.5 Research Question**

1. What are the experiences breastfeeding mothers go through?
2. What are the mothers' perceptions about the causes of these experiences?
3. How do the mothers cope with the challenges associated with breastfeeding?
4. How do the experiences influence the well-being of the mothers?

## 2.6 Conceptual Framework

Analytically, theories explored and findings from empirical literature revealed evidence that psychological factors influencing exclusive breastfeeding would influence psychological health in diverse ways.

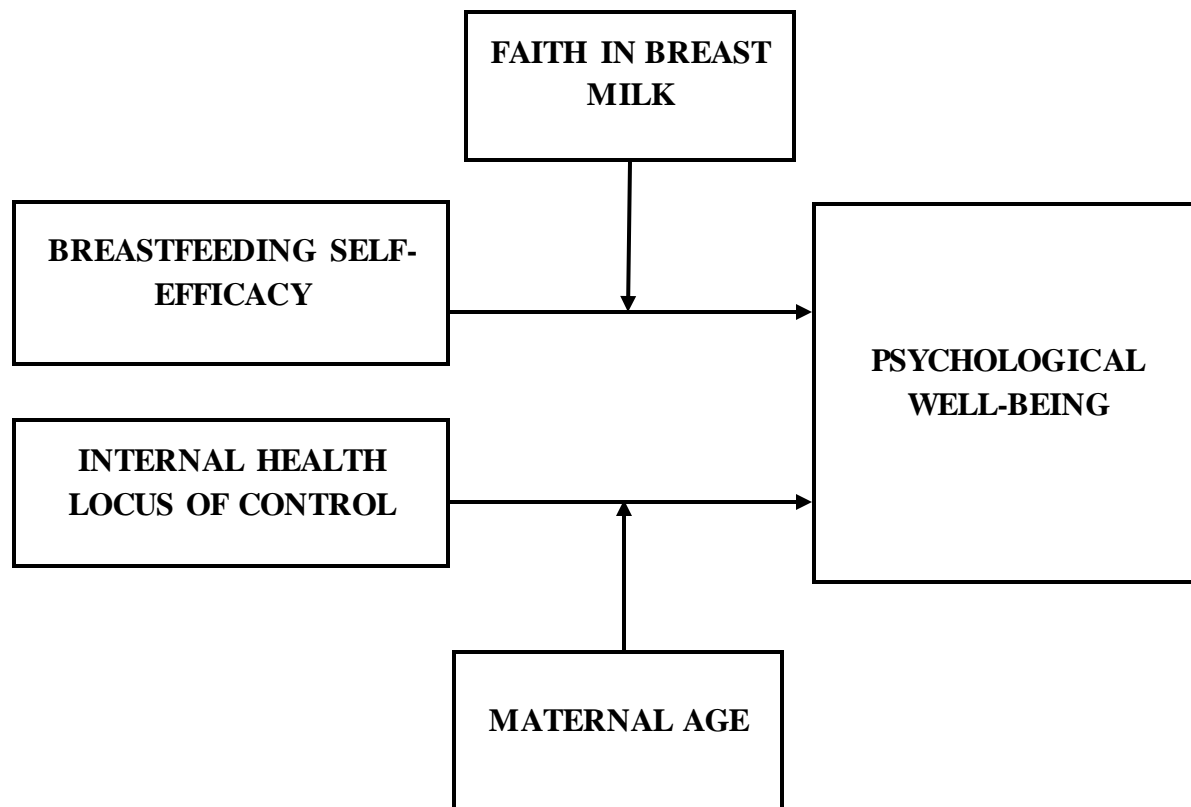


Figure 2. A conceptual framework of Psychological factors influencing exclusive breastfeeding and the psychological health of breastfeeding mothers

## 2.7 Operational Definitions

1. Faith in breast milk: for the purpose of this study, this construct will be measured using the Hill and Humenich Lactating sub-scales of maternal-infant breastfeeding satisfaction and perceived infant breastfeeding satisfaction.

2. Psychological well-being: for the purpose of this study, psychological well-being will involve respect to self-acceptance, personal growth, purpose in life, environmental mastery, autonomy, and positive relations with others. The construct will be measured using Ruff's Psychological Well-being Scale
3. Breastfeeding self-efficacy: this construct looks at the confidence level of breastfeeding mothers measured with Breastfeeding Self-Efficacy Scale.
4. Internal health locus of control: this construct focuses on the extent to which individuals attribute their health conditions to their own behavior and this is measured with Multidimensional Health Locus of Control Scale (MHLC)

## CHAPTER THREE

### METHODOLOGY

#### 3.0 Introduction

This chapter examines and explains the methods used in the study. It delivers information on the current research design, research setting, the population, sample size, sampling technique, knowledge of the measures used, procedures and ethical consideration.

#### 3.1 Research design

This study used a mixed-method (concurrent) approach. Thus, both qualitative and quantitative methods were employed. With the concurrent method, the researcher collected both quantitative and qualitative data at the same time, prioritized the methods equally, and then integrated the information in interpreting the findings (Creswell & Clark, 2017). A cross-sectional design was used to collect data for the quantitative phase, since breastfeeding mothers were selected from different socioeconomic backgrounds (age, educational level, marital status, number of children among others) within the same period. For the qualitative phase, a phenomenological approach was employed for this work as the study aimed to describe the experiences of breastfeeding mothers and its effect on their well-being. Focus group discussion was the method used to gather qualitative data. According to Krueger (2014), the use of focus group discussion (FGD) is an economical way of gaining peoples' view on an issue and a diversity of perspectives is obtained. This encourages a higher level of spontaneity in the expression of views. Furthermore, participants feel encouraged and supported by other group members to freely express their views. In view of the above reasons, focus group discussions was adopted for the study, since the researcher wanted to tap a more diverse and spontaneous views from the breastfeeding mothers. In using this approach, the breastfeeding mothers,

especially the adolescent mothers and the primiparous mothers got the opportunity to learn from the multiparous mothers, who were more experienced.

### **3.2 Research Setting**

Breastfeeding mothers were selected from patronized healthcare facilities in the Adentan Municipality. Adentan municipality was selected for the study because according to the 2014 report of the Ghana statistical service, the municipality has a birth rate of 26.3% and is among those other municipalities in Greater Accra which has high birth rates. The municipality has four sub municipalities, namely, Koose, Gbentanaa, Sutrunaa and Nii Ashaley sub-municipal. The selected health centers were Mother-Love hospital from Gbentanaa sub-municipal, ST. John of God Clinic from Koose sub-municipal, Ashaley-Botwe health center from Nii Ashaley, and Twumasiwaa Hospital from Sutrunaa sub-municipal. These healthcare centers adequately represent the Adentan municipality in terms of health-related issues, since they are the major and most patronized health centers in the various sub-municipals.

### **3.3 Population**

Adentan Municipal has a total population of 89,448 in 2017. The municipality has a population of 3,578 breastfeeding mothers with babies who fall within the ages of zero to eleven months (0-11 months). Based on this population, an estimation of 1,952 was made for breastfeeding mothers who fall within 0-6 months. For the purpose of this study, the estimated population of 1,952 breastfeeding mothers who fall within (0-6) was the population used. This population was projected by the Accra Regional Health Directorate of the Ghana Health Service. The projection was based on the 2016 coverage for the region, and also on the Ghana Statistical Service (GSS, 2010) report which gave the growth rate of Accra as four percent.

### 3.4 Sample size

Based on Tabacknick and Fidell's (2007) formula for estimating a minimum sample size for regression analysis ( $n > 50 + 8m$ ), where 'n' stands for sample size and 'm' stands for number of independent variables, a minimum sample of 66 was derived for this study. However, a sample size of 130 was used for the quantitative study. This formula was used to estimate an appropriate sample size so as to reduce errors in the study. According to Sim et al. (2001), in order to understand health and illness behavior and be able to provide an appropriate intervention, there is going to be a short fall unless there is an attempt to tap the subjective reality of ill-health as it affects individuals.

In order to acquire these subjective views, a qualitative method of gathering data which is more profound to the distinct experiences, beliefs, perceptions and meanings is required. As a result, this study incorporated a qualitative aspect in order to capture the unique experiences, beliefs, perceptions and meanings of breastfeeding mothers. The qualitative study used four focus groups. According to Krueger (2014), generally, a number of 8 to 12 participants is more suitable when using a focus group, as the number is large enough to obtain diverse perspectives on an issue. In view of this, a group made up of eight participants was formed in each facility. Each group consisted of primiparas as well as multiparas, also each group consisted of both the new and the old generation (adolescent mothers and mothers above thirty-five years). This selection was made so as to obtain the experiences of both the young and the old generation, as well as new and more experienced mothers. A discussion with the group was carried out to explore the experiences of the breastfeeding mothers.

Table 1

*Summary of demographic characteristics of Breastfeeding Mothers in Adentan Municipality*

<b>Demographic Variable</b>	<b>Categories</b>	<b>Frequency</b>	<b>Percentage (%)</b>
<b>Age</b>	Below 20	9	6.9
	20-29	72	55.4
	30-39	45	34.6
	40-49	4	3.1
	<b>Total</b>	130	100
<b>Marital Status</b>	Single	22	16.9
	Married	108	83.1
	<b>Total</b>	130	100
<b>Level of Education</b>	No School	9	6.9
	Below High School	8	6.2
	High School	78	60
	Diploma	7	5.4
	Degree	2	1.5
	Masters	26	20
	<b>Total</b>	130	100
<b>Type of Birth</b>	Twin Birth	13	10
	Single Birth	117	90
	<b>Total</b>	130	100
<b>Employment Status</b>	Employed	96	73.8
	Unemployed	34	26.2
	<b>Total</b>	130	100
<b>Type of Work</b>	Self Employed	69	53.1
	Government Work	20	15.4
	Private Work	16	12.3
	Not Working	25	19.2
	<b>Total</b>	130	100
<b>Position in the Workplace</b>	Top Manager	55	42.3
	Middle Manager	22	16.9
	Core Operators	28	21.5
	Not Working	25	19.2
	<b>Total</b>	130	100

### **3.5 Inclusion Criteria**

The current study consisted of exclusive breastfeeding mothers aged fifteen to forty-nine years (15-49yrs) who had infants whose age fell within 0-6 months (postnatal mothers and mothers attending child welfare clinics), and were expected to be actively engaged in exclusive breastfeeding. Decisively, such age range was proposed since child bearing starts right from adolescent years till a woman reaches menopausal age. Irrespective of the age of the mother, society expects her to breastfeed. Using this age range prevented the data from being lopsided, since it provided wider range of mothers. Adolescent mothers were included in this study as this helped the researcher explore and gain more knowledge into the kind of experiences they go through as adolescent mothers. In this regard, exclusive breastfeeding mothers, including the adolescent mothers who were willing to respond to questionnaires, were involved in this study.

### **3.6 Exclusion Criteria**

The study excluded wet nurses who had been hired to breastfeed other people's children. This is because such people breastfed for other reasons (e.g., to be paid) other than the main reasons for breastfeeding infants (e.g., offering food which contain the right amount of nutrient for the infant and improving their psychological well-being). Again, mothers who were breastfeeding children older than 6 months were excluded. This is so because such mothers were not practicing exclusive breastfeeding even though they were breastfeeding. In addition, breastfeeding mothers who were on admission at the hospitals were not part of the study, because such mothers may experience poor psychological well-being due to other factors and not necessarily as a result of not practicing exclusive breastfeeding.

### **3.7 Sampling technique**

Purposive and convenience sampling techniques were used in this study. Purposive technique was applied as a pivot to select breastfeeding mothers since the researcher did not intend to use mothers who were just obtainable, but rather employ reasonable judgment to select the suitable sample based on relevant information. Relevant information in this case denoted the rejection of wet nurses who are hired to breastfeed other people's children, but included breastfeeding mothers whose infants were within 0-6 months and had decided to exclusively breastfeed their children.

The use of convenience sampling technique comprises recruiting participants based on availability and their willingness to take part in the study by completing a questionnaire. This approach seemed appropriate since randomization did not seem feasible, only participants who were willing to complete questionnaire were used. With the application of this technique, participants, thus breastfeeding mothers, were involved not because they were special from others, but rather because they happened to be available at the appropriate time. Burns and Grove (2005) attested to the fact that this technique is useful for correlational studies. Nevertheless, this method is preferable due to the fact that using probability sampling to obtain participant from this target group will be quite difficult to achieve.

### **3.8 Demographic Characteristics**

Table 1 shows the distribution of the respondents across all demographic variables examined in the study. It can be observed from the table that out of the 130 respondents captured in the study, 9 (6.9%) were below 20 (17 to 19 years), while 72 (55.4%) were within 20 to 29 years. Also, 45 (34.6%) were between 30 to 39 years, and 4 (3.1%) were 40 to 49. On the issue of marital status, a number of 22 (16.9) respondents were single, whereas 108 (83.1%)

respondents were married. On the level of education, it can be found from the table that, 9 (6.9%) had no education; 8 (6.2%) were below high school level; 78 (60%) had high school education; 7 (5.4%) were diploma holders; 2 (1.5%) were degree holders and 26 (20%) were higher degree holders. With respect to type of birth, about 13 (10%) respondents had twin births, and 117 (90%) had single births. Furthermore, in terms of employment status, 96 (73.8%) respondents were employed, while 34 (26.2%) respondents were unemployed. When it comes to type of work, 69 (53.1%) respondents were self-employed; 20 (15.4%) respondents were government workers; 16 (12.3%) respondents were in the private sector and 25 (19.2%) respondents were not working. Finally, on the issue of position at work, 55 (42.3%) respondents were top managers; 22 (16.9%) respondents were middle managers; 28 (21.5%) respondents were core-operators and 25 (19.2%) respondents were not working.

Additionally, it was observed that out of the 32 participants who took part in the focus group discussion, 6 (18.75%) participants were below 20 years (17-19); 13 (40.63%) were within 20-29; 10 (31.25%) were between 30-39 and 3 (9.38%) were between 40-41. On marital status, a number of 7 (21.88%) participants were single, whereas 25 (78.13%) participants were married. On level of education, it was found that 2 (6.25%) participants were not educated; 9 (28.13%) were below high school; 13 (40.63%) were high school level; 3 (9.38%) were diploma holders; 3 (9.38%) were degree holders and 2 (6.25%) were higher degree holders. With respect to type of birth, 5 (15.63%) participants had twin births, whereas 27 (84.38%) had single births. In terms of employment status, 7 participants were unemployed, while 25 (78.13%) were employed. In terms of type of work, 9 (28.13%) participants were self-employed; 11 (34.38%) were government workers; 5 (15.63%) were in the private sector, and 7 were not working. Lastly, on

the issue of position at work, 12 (37.5%) were top managers, 6 (18.75) were middle managers; 8 (25%) were core operators and 7 were not working.

### **3.9 Instruments/Measures**

The instrument used for data collection in this study was a set of questionnaires classified into five sections namely, A, B, C, D and E. Demographic data on variables such as age, marital status, level of education, employment status, number of children among others were gathered in section A, Section B gathered information on breastfeeding self-efficacy, Section C collected data on a mother's faith in breast milk, Section D gathered data on internal health locus of control and Section E finally collected data on psychological well-being.

#### **3.9.1 Section A: Demographic Questionnaire**

With respect to demographic information, participants' personal details were examined. Some of the information that were sorted from the participants were age, marital status, educational background, employment status, type of work, position in the workplace, number of children, position of current child and twin births. This information was necessary as it helped the researcher to give a description of the sample used.

#### **3.9.2 Section B: Breastfeeding self-efficacy**

**Breastfeeding Self -Efficacy Scale (BSES; Dennis, 2003).** The BSES is a 14-item scale which was used to measure the breastfeeding confidence of mothers. Each item on the scale starts with the phrase 'I can always'. Sample items include "I can always determine that my baby is getting enough milk", "I can always breastfeed my baby without using formula as a supplement." and "I can always ensure that my baby is properly fastened on for the whole feeding." The items are anchored on a 5-point Likert-type scale (where 1 indicates "not at all confident" and 5 indicates "always confident"). All items are to be presented positively and score

for each are summed to have ranged from 14 to 70. Highest scores indicate higher levels of breastfeeding self-efficacy and lower scores indicating lower levels of breastfeeding self-efficacy. According to Dennis (2003), the breastfeeding self-efficacy scale has a Cronbach's alpha coefficient of .96. The pilot study for this study yielded a reliability coefficient of .95 while that of the main study was .88.

### **3.9.3 Section C: Faith in breast milk**

**Hill and Humenick Lactating Scale (HHLS; Hill & Humenick, 1996).** The HHLS is a 20-item scale with a 7-point Likert scale (where, 1 indicates "strongly disagree" and 7 indicates "strongly agree"). HHLS was primarily used to measure maternal confidence/commitment, perceived infant satisfaction and maternal satisfaction on breastfeeding. HHLS consist of three subscales namely; maternal confidence/commitment to breastfeeding, perceived infant breastfeeding satisfaction and maternal-infant breastfeeding satisfaction. For the purpose of this study, two subscales of the HHLS (perceived infant breastfeeding satisfaction and maternal-infant breastfeeding satisfaction) were adopted to measure faith in breast milk. Sample items on the scale include "My baby was satisfied with the amount of breast milk received", "My baby would be hungry if I did not use formula along with breastfeeding" and "I would describe my baby as being overfed after breastfeeding." A composite score ranging from 20 to 40 is obtained and a higher score on the two subscales indicate higher levels of maternal and infant satisfaction, thus mother having the belief that breast milk is just enough for the baby and that baby is satisfied with the breast milk. The three subscales are known to have a high internal consistency which ranges from 0.75 to .98 (Koren, 2011). When pilot study was conducted, the reliability coefficient was .83 and the reliability coefficient obtained for main study was .72.

### **3.9.4 Section D: Health locus of control**

**Multidimensional Health Locus of Control (MHLC) scale.** The MHLC is a 48-item scale which has three forms, form A and B (Wallston, Wallston, & DeVallis, 1978), and Form C (Wallston, Stein, & Smith, 1994) and was used to assess individuals' source of health control. The original MHLC consist of Forms A and B, which assess the same concept on healthy individuals. Form C on the other hand is used to assess individuals with existing medical problem. The MHLC forms A and B have three subscales (internal health locus of control, health locus of control due to chance and powerful other) with each subscale consisting of 6-items. For the purpose of this work, the internal locus of control for form A and B was used. The internal health locus of control (IHLC) scale measures the extent to which patients attribute their health conditions to their own behavior. Sample items on the scale include "I am in control of my health", "when I get sick, I am to blame" and "If I take care of myself, I can avoid illness." A 6-point Likert-type responses (ranging from 1 indicating "strongly disagree" to 6 indicating "strongly agree") was used. A composite score was then obtained for the scale without any items needing to be reversed before summing. The sum of the IHLC scale ranges from about 6-36. The MHLC forms exhibit moderate reliability, with Cronbach's alpha ranging from .60 to .75 (Wallston et al., 1994). When pilot study was conducted, the reliability coefficient was .68 while with the actual work, the reliability coefficient was .77.

### **3.9.5 Section E: Psychological well-being**

**Ryff's Psychological Well-Being Scale (RPWS; Ryff, 1989).** The RPWS is a 42-item scale which will be used to assess the psychological well-being of breastfeeding mothers. The scale consists of six dimensions: sense of autonomy, purpose in life, self-acceptance, positive relations with others, environmental mastery and personal growth. Sample items on the scale

include “I like most aspects of my personality.”, “ In general, I feel confident and positive about myself.”and “ I tend to worry about what other people think of me.” Before computing the items in this scale, some of the items needed to be reverse scored. Items comprising of 3, 5, 10, 13, 14, 15, 16, 17, 18, 19, 23, 26, 27, 30, 31, 32, 34, 36, 39 and 41 were reverse scored. In scoring, sum up the score for various items for each of the six dimensions, the highest score is indicative of higher level of each of the six dimensions of the scale. The scale has an average coefficient alpha of .858. (Crouch, 2016) When pilot study was conducted, the reliability coefficient was .72 while with the actual work, the reliability coefficient was .84.

### **3.10 Pilot study**

A pilot study is the pre-testing of a specific research instrument (Robinson et al., 1994). Pre-testing denotes the testing of the questionnaires intended for use in the study on a smaller sample of respondents with the aim of detecting and eliminating potential problems. An advantage of conducting a pilot study is that, it helps to give a prior notice about where the main study could have a problem, whether the instruments are unsuitable or complicated or whether the proposed methods are appropriate (Van Teijlingen, Rennie, Hundley & Graham, 2001). Again, it helps to determine the reliability and validity of the variables. A pilot study helps to disclose deficits in the design of a proposed research or procedure which can be looked at before the main study. Based on the aforementioned reasons, a pre-test was conducted prior to the main work. This pilot study was conducted to examine the suitability of the various instruments on the Ghanaian population in order to address any cross-cultural validity of the instruments if necessary, since all the instruments were used outside Ghana, mostly in the western world with different cultural background.

Instruments used for the pilot study included: Breastfeeding Self-Efficacy, Multidimensional Health Locus of Control, Hill and Humenick Lactation and Ryff's Psychological Well-being Scales. During the pilot study, two health care centers in the same municipality were used. These facilities were conveniently sampled and used for the study. A number of 20 participants were used for the piloting. Ten participants from Adentan Clinic (private) and 10 from Sutrunaa Health Center (public) were involved. The sample included breastfeeding mothers who had babies who fell within 0-6 months. There were both primiparous as well as multiparous mothers. Additionally, it included teenage mothers as well as mothers above 40 years, illiterates, semi-illiterates and literates. Although some participants complained that the items were many, they did not express any difficulty in responding to the items. Furthermore, although there were illiterates, the questionnaires had been translated into the local language (Twi) and were read to such participants for easy comprehension.

Table 2

*Summary of the Reliability Statistics obtained for the Instruments in the Pilot Study*

<b>Scales</b>	<b>Number of items</b>	<b>Cronbach Alpha</b>
Breastfeeding Self-Efficacy	14	.95
Multidimensional Health Locus of Control Sub-scale	12	.68
Hill & Humenick Sub-scale	10	.83
Ryff's Psychological Well-Being	42	.72

### 3.11 Main Research Procedure

Initially, a verbal pre-survey consent was sought from the Administrator of the Adentan Municipal Health Directorate and also from the various health centers to announce the intention of using the municipality and the health centers for the study and asked for their cooperation. A letter seeking for permission to carry out the study was acquired from the Department of Psychology (UG) in addition to the research proposal and other relevant documents and taken to the Ethics Committee for Humanities (ECH) for the approval before the commencement of data collection. An ethical approval was obtained from the Ethics Committee for Humanities of University of Ghana, Legon. A permission letter, a copy of the proposal, the ethical approval letter and the introductory letter from the psychology department were taken to the Adentan Municipal Health Directorate for a formal consent to use the municipal for the study. After permission had been granted, the ethical approval letter, the introductory letter and copies of the proposal were sent to the various hospitals and health centers, namely, ST. John of God Clinic, Twumasiwaa Hospital, Ashaley-Botwe Health Center and Mother-Love Hospital respectively.

A date was scheduled and data collection commenced. The services of two research assistants were employed for the data collection. These assistants were given training on the administration of the questionnaires. The researcher and the two research assistants collected the data under confidential conditions. Before the initiation of data collection, an informed consent form was administered to the participants for their approval. Participants were informed about their right to withdraw at the beginning, during or even after data had been collected. An assent form was administered to the adolescent mothers who were willing to take part in the study. A home visit was made to the guardians of the adolescent mothers to seek for their consent before

their wards took part in the study. For those adolescent mothers whose guardians responded negatively to the request, they were excluded from the study. Participants were informed not to write their names on the questionnaire for anonymity sake, they were assured of privacy and confidentiality, thus the information being collected will be under lock and key, and if on an electronic device, will have a password on it. Those who took part in the focus group discussions were assured that their voices will not be used in the study and that it is their experiences that will be expressed in the study. Items in the questionnaire were translated into the local language (Twi) and were orally administered for easy comprehension in situations where participants had difficulty in English language or reading and writing. . A response rate of 100% was attained for the current study due to the procedure of data collection. The researcher read the items on the questionnaire to each participant and recorded the response.

### **3.12 Ethical Consideration**

With respect to the American Psychological Association (APA, 2002) Ethics Code, certain ethical considerations were seen as necessary so were employed in this study in accordance with the ethical principles governing the use of human participants for research purpose. Although a study may seem feasible, it may remain unacceptable ethically due to the harm that may be caused on the participants. It is therefore necessary for a researcher to examine the implications of the study prior to commencement of the work. As postulated by APA, the Ethics Code is delivered with the purpose of providing specific standards of the discipline. In accordance with the APA guidelines, specific steps were considered in this study to ensure that these principles were trailed.

In order to ensure that these principles were followed, a formal request was made to the Department of Psychology by the researcher to be given a letter, seeking permission to conduct a

study which was added to the research proposal and other relevant documents and submitted to the Ethical Committee of Humanities (ECH) for an approval before the commencement of data collection. The obligation of the ECH is to supervise and regulate the ethical conduct of research within the various disciplines of humanities at the University of Ghana.

Furthermore, permission was sought from the administrator of the Adentan Municipal Health Directorate and also from the administrators of the various health centers used in this study. Additionally, the purpose of the study was explained to participants both in words and in writing and their consent were sought. Precise instructions concerning the purpose of the study as well as voluntary participation in the research were obviously spelt out on the questionnaire. Also, it was made known to participants that there will be no physical harm or adverse effect if they decide to participate, although they might experience some psychological distress when recounting their experiences. They were also assured of no negative consequences if they decline from the study. Similarly, no individual was forced to participate in the study. With respect to confidentiality and anonymity of responses, participants were instructed not to write their names on the questionnaire nor make any indication on the questionnaire that will disclose their identity. Participants were again advised that they were not under any obligation to participate in the study and so have every right to withdraw consent at any point during the study. With respect to those in the focus groups, it was made clear to them that their voices were not going to be used but rather their words would be used in the study. Finally, the contacts (email address and phone number) of the researcher was offered to participants for them to contact the researcher in case they wanted to seek for any clarification(s) about the research.

### **3.13 Data Analysis**

#### **3.13.1 Analysis of Quantitative Data**

The quantitative data for the study was analyzed using the Statistical Package for Social Sciences (SPSS version 21). The specific statistical tools used to analyze the various hypotheses are presented below.

The various hypotheses were analyzed using Hierarchical multiple regression since the two independent variables which were measured on an interval scale were being analyzed on one dependent variable after some significant demographic variables had been controlled. Also, test for moderating effect was analyzed using Hierarchical multiple regression since Baron and Kenny (1986) suggest that in testing for moderation, the moderator is a third variable which is an independent variable. Hence, this helps in testing the relationship between the two independent variables and the dependent variable.

#### **3.13.2 Analysis of Qualitative Data**

By adhering to the stages of thematic analysis recommended by Braun and Clarke (2006), repeated themes within the responses were identified in order to help in the qualitative data analysis. The stages comprise of data familiarization, generalization of codes, development of themes based on initial codes, review of themes, definition and naming of themes and report writing. Data was collected by the researcher, hence had prior knowledge of the data. Additionally, through transcription, the researcher familiarized with the data, but in order to be more conversant with it, the researcher read through the written transcript several times to be abreast with the depth and breadth. By reading through severally, repeated segments of the data were given codes as sore nipple, insufficient milk production, bonding, family planning method, among others. After the various codes had been generated, development of themes was next. The

various codes were sorted and grouped under a broader level theme. Different codes were combined to form a theme, for instance, all the above codes were grouped under experiences encountered by breastfeeding mothers. During the stage of reviewing themes, the researcher noticed that some of the codes were negative and others positive, hence the broader theme was broken down into sections. These sections had to be defined and named, hence was named as negative and positive experiences. In reporting, a sufficient evidence of the themes within the data was presented using excerpts of participants' accounts. Furthermore, since four focus groups were used for the study, FG represented focus group, while 1 to 4 represented the various groups in which the participants belonged to. Additionally, a, b, c, d, e, f, g and h were used to identify the eight participants in the various groups.

### **3.14 Trustworthiness of Qualitative Findings**

To ensure trustworthiness of the qualitative findings, some suggested steps by Shenton (2004) were observed. First, to ensure credibility, the researcher visited all the facilities twice before data collection began with the aim of familiarizing with the mothers and to witness some of the experiences they encounter. Also, different methods thus observation and focus groups discussions were used. This helped the researcher to witness and to discuss the experiences with the participants. Additionally, a wide range of informants were used (four focus groups consisting of 8 participants each). This helped in verifying and comparing the experiences and viewpoints of the mothers in one group against others. Mothers were given the opportunity to refuse participation hence only those who were genuinely willing to offer data freely took part. Furthermore, questions were rephrased and probes were used to gain an in-depth information from participants. Since the interview sessions were recorded using audiotape, a participant was asked to read the transcripts to verify if their views had been properly captured. Second, for

reliability sake, an effective transcription of the data was done by the researcher and a research assistant and later compared, to ensure the data was accurately transcribed and to gain a comprehensive data. Third, to ensure confirmability, there were several debriefing sessions between researcher and supervisor to develop ideas. Fourth, the researcher coded the transcript after which several engagements between researcher and supervisor went on to determine areas of agreements and disagreements until codes were formed into themes.

## CHAPTER FOUR

### RESULTS

#### 4.0 Introduction

The study was conducted purposely to examine how psychological factors related to exclusive breastfeeding influence well-being, and also to explore breastfeeding experiences and its effect on well-being among exclusive breastfeeding mothers in Adentan Municipality. One-hundred and thirty (130) breastfeeding mothers were used for the quantitative study. The Statistical Package for Social Sciences (SPSS) version 21 was used to analyze the data. With the qualitative study, 4 focus groups consisting of 8 participants each were used and thematic analysis was employed. At the end, some themes were generated. This chapter presents preliminary analysis of the data, inferential statistics as well as the qualitative findings.

#### 4.1 Preliminary Analysis

The preliminary analysis in this study was done in four steps. They consist of conducting normal distribution analysis, reliability analysis, descriptive analysis and correlation matrix using Pearson Product's Moment correlation coefficient.

##### 4.1.1 Normal Distribution

In order to meet one of the requirements for multiple regression analysis, test of normality was done by looking out for the skewness and kurtosis of the scores obtained for the variables in the study. From Table 3, the skewness and kurtosis fell within the range of -1.099 to +.506. According to Tabachnick and Fidell (2007), a data is said to be normally distributed when the values of the variables under study falls within -2 to +2. The range obtained from this study

explains that the data for this study is normally distributed, since the values of the skewness and kurtosis fall within -2 to +2. Hence, the data is suitable for multiple regression analysis.

#### **4.1.2 Reliability Analysis of the Scales**

The Cronbach alpha was computed so as to find out the reliability of the scales used in the study. The coefficients of the internal consistency of the various measures are as follows: Breastfeeding Self-Efficacy (number of items = 14,  $\alpha = .88$ ), Internal Health Locus of Control sub-scale (number of items = 12,  $\alpha = .77$ ), H & H Sub-scale (number of items = 10,  $\alpha = .72$ ) and Ryff's Psychological Well-being (number of items = 42,  $\alpha = .84$ ). George and Mallery (2003) reported that a reliability value above .7 is acceptable and that above .80 is good indicating that the scale is reliable and can be used for research purposes. Hence, the values obtained from the instruments of this study are good and reliable.

#### **4.1.3 Descriptive Analysis**

Descriptive statistics of the data was conducted by summarizing the raw data obtained so as to find the mean and standard deviation. The results of the analysis can be obtained from Table 3.0.

Table 3.0

*Summary of Descriptive Statistics of Variables in the Study*

Variable	Mean	SD	Min.	Max.	Skewness	Kurtosis	Alpha
Breastfeeding SE	56.38	9.80	34	70	-.41	-.89	.88
Internal Locus	50.29	9.39	34	72	-.04	-.67	.77
Faith in Breast milk	48.49	6.48	30	62	-.57	.56	.72
Psycho. Well-being	173.25	22.67	133	216	.42	-1.10	.84

*Notes.* N= 130; SE = Self-Efficacy; Psycho = Psychological

From Table 3.0, the mean and standard deviation for breastfeeding self-efficacy is 56.38 and 9.80 respectively. The minimum and maximum score for breastfeeding self-efficacy is 34 and 70 respectively. This mean score for breastfeeding self-efficacy denotes that the mean score among the sample is closer to the maximum score. Hence, there is a high level of breastfeeding self-efficacy among the respondents. With regards to internal locus of control, the mean and standard deviation is 50.29 and 9.29 respectively, while the minimum and maximum scores are 34 and 72 respectively. This indicates that the mean score is closer to the maximum score and therefore, there are higher levels of internal health locus of control among the sample. Furthermore, the mean and standard deviation for faith in breast milk is 48.49 and 6.48 whereas the minimum and maximum scores are 30 and 62 respectively. The mean score is closer to the maximum score and this implies that there are higher levels of faith in breast milk among the respondents. Finally, psychological wellbeing had a mean and standard deviation of 173.25 and 22.67 respectively, while the minimum and maximum scores were 13 and 22 respectively. This also implies that there are high levels of psychological wellbeing among the respondents.

#### 4.1.4 Inter-correlation Matrix

The Inter-correlation matrix was analyzed using the Pearson Product Moment Correlation and the results are presented in Table 4. The inter-correlation matrix was done in order to ensure that the assumptions for multiple regression are considerably met. According to Tabachnick and Fidell (2007), when any attempt is made to use multiple regression analysis, the independent variables ought to be significantly related. They further emphasized that in order not to commit multicollinearity, these two independent variables should not be too strongly related. That is the correlation coefficient between the two independent variables should not be above .80.

Table 4

*Inter-correlation matrix of main Study Variables*

Variables	1	2	3	4	5
1. Psychological Wellbeing	—	.10	.48**	.22*	.24**
2. Age		—	-.08	.07	-.19*
3. Breastfeeding self-efficacy			—	.30**	.37**
4. Faith in Breast Milk				—	.01
5. Internal Locus of Control					—

*Note: \* Correlation significant at the 0.05 level, \*\*Correlation significant at the 0.01 level; N = 130*

From table 4.0, there was a positive relationship between breastfeeding self-efficacy, faith in breast milk and internal locus of control on psychological wellbeing. Age on the other hand did not predict psychological wellbeing, breastfeeding self-efficacy and faith in breast milk. It was noted that there was a significant negative relationship between age and internal locus of control on psychological wellbeing. However, there was a positive relationship between faith in breast milk and internal locus of control on breastfeeding self-efficacy. It was further realized that faith in breast milk did not predict internal locus of control. In order to conduct multiple regression analysis, one needs to ensure that there is some existing linearity between the various independent variables. From table 4, the independent variables in this study were related, hence, the assumptions for multiple regression were met.

#### **4.2 Hypotheses Testing**

The various hypotheses were analyzed by following the data analysis procedure presented in chapter 3, methodology.

**Hypothesis 1:** There is a significant positive relationship between breastfeeding self-efficacy and internal locus of control on psychological well-being, controlling for potential covariates. Thus, mothers with higher breastfeeding self-efficacy and those with higher internal health locus of control had higher psychological well-being when compared with mothers who have lower breastfeeding self-efficacy and lower internal health locus of control. Some demographics were found to have significant influence on psychological well-being. Hence, they were dummy-coded into 0 and 1 and were then correlated with psychological well-being. The dummy variables found to have significant impact on psychological well-being were then controlled. Overall dummy variables controlled were below high school, high school, diploma, degree, masters, unemployed, self-employed, government and middle manager. At Step one, the

controlled variables (high school, high school, diploma, degree, masters, unemployed, self-employed, government and middle manager ) were entered. At step two, variables such as Breastfeeding Self-Efficacy, Internal Health Locus of Control, Faith in Breast Milk and Age were entered. Finally, at step three, the various interaction effects were entered.

Table 5

*Summary of the Hierarchical Multiple Regression for Faith in Breast Milk and age on the relationship between Breastfeeding Self-efficacy, Internal Health Locus of Control and Psychological Well-being*

Step		B	Std. Error	B	T	p
1	(Constant)	175.42	7.08		24.79	.000
	Below_High_School	-27.81	9.53	-.30	-2.92	.004
	High_School	.65	5.92	.01	.11	.913
	Diploma	27.68	8.87	.28	3.12	.002
	Degree	-36.12	14.64	-.20	-2.47	.015
	Masters	25.24	7.74	.45	3.26	.001
	Unemployed	-13.47	4.16	-.26	-3.24	.002
	Self employed	-5.91	4.24	-.13	-1.40	.166
	Government	-5.31	7.11	-.09	-.75	.457
	Middle Manager	3.77	5.95	.06	.63	.528
2	(Constant)	73.54	16.79		4.38	.000
	Below High School	-16.57	8.47	-.18	-1.96	.053
	High School	4.73	5.09	.10	.93	.355
	Diploma	22.60	7.69	.23	2.94	.004
	Degree	-23.19	14.36	-.13	-1.61	.109
	Masters	36.65	6.87	.65	5.34	.000
	Unemployed	-7.56	3.72	-.15	-2.03	.044
	Self employed	-3.44	3.87	-.08	-.888	.376
	Government	-7.01	6.08	-.11	-1.15	.251
	Middle Manager	-3.26	5.23	-.05	-.62	.535
	Internal Health Locus	.44	.164	.18	2.68	.008
Breastfeeding self-efficacy	.73	.169	.32	4.35	.000	

	Hill & Humenick Lactating Scale	.138	.223	.039	.62	.538
	Age Distribution	.877	.316	.177	2.78	.006
	(Constant)	55.42	17.44		3.18	.002
	Below High School	-15.61	8.21	-.17	-1.90	.060
	High School	7.07	4.99	.15	1.42	.159
	Diploma	22.49	7.45	.23	3.02	.003
	Degree	-38.56	15.10	-.21	-2.55	.012
	Masters	36.63	6.67	.65	5.49	.000
	Unemployed	-5.77	3.66	-.11	-1.58	.118
	Self employed	-2.43	3.77	-.05	-.64	.521
3	Government	-4.24	5.98	-.07	-.71	.480
	Middle Manager	-4.36	5.08	-.07	-.86	.392
	Internal Health Locus	.59	.17	.25	3.56	.001
	Breastfeeding self-efficacy	.70	.16	.30	4.25	.000
	Hill & Humenick Lactating Scale	.13	.22	.04	.61	.542
	Age Distribution	1.26	.33	.25	3.83	.000
	HH*BSE	-.29	1.34	-.01	-.22	.828
	Age*ILC	3.41	1.10	.19	3.12	.002

$R^2 = .501, .656$  and  $.683$  for Step 1, 2 and 3 respectively.  $\Delta R^2 = .50, .155$  and  $.027$  for Steps 1, 2 and 3 respectively;  $F = 13.36, 17.00, 16.37$  for Step 1, 2 and 3 respectively.

From Table 5.0, the analysis indicated that the model in step one was significant accounting for a 50.1% variance in explaining psychological well-being [ $F_{(9, 120)} = 13.36, p < .001, R^2 = .501$ ]. Thus, the controlled demographics significantly predicted psychological well-being. At step two of the model, when some of the demographics were controlled for, internal health locus of control and breastfeeding self-efficacy made a significant contribution (15.5%) in explaining the variance in psychological well-being, [ $F_{(13, 116)} = 16.99, p < .001, \Delta R^2 = .155$ ]. Thus, breastfeeding self-efficacy significantly predicted psychological well-being ( $\beta = .317, p < .001$ ), while internal health locus of control significantly predicted psychological well-being ( $\beta = .182, p < .05$ ). Hence, the hypothesis that mothers with higher levels of breastfeeding self-

efficacy and internal locus of control will experience higher levels of psychological well-being was supported.

**Hypothesis 2:** Age moderates the relationship between internal health locus of control and psychological well-being. Thus mothers' whose age were above 20year had higher internal locus of control and so had higher psychological well-being. Hierarchical multiple regression analysis was used to test this hypothesis.

From Table 6.0, the analysis indicated that the model in step one was significant accounting for a 50.1% variance in explaining psychological well-being [ $F_{(9, 120)} = 13.36, p < .001, R^2 = .501$ ]. Thus, the controlled demographics significantly predicted psychological well-being. At step two of the model, when some of the demographics were controlled for, age and faith in breast milk made a significant contribution (15.5%) in explaining the variance in psychological well-being, [ $F_{(13, 116)} = 16.99, p < .001, \Delta R^2 = .155$ ]. Thus, age significantly predicted psychological well-being ( $\beta = .177, p < .001$ ). The third step revealed that the model accounted for (2.7%) variance in psychological well-being [ $F_{(13, 116)} = 15.10, p < .001, \Delta R^2 = .027$ ]. Hence, in line with the prediction made, the interaction between internal locus of control and age was significant ( $\beta = .193, p < .001$ ). Thus, the hypothesis that age moderates the relationship between internal locus of control and psychological wellbeing was supported.

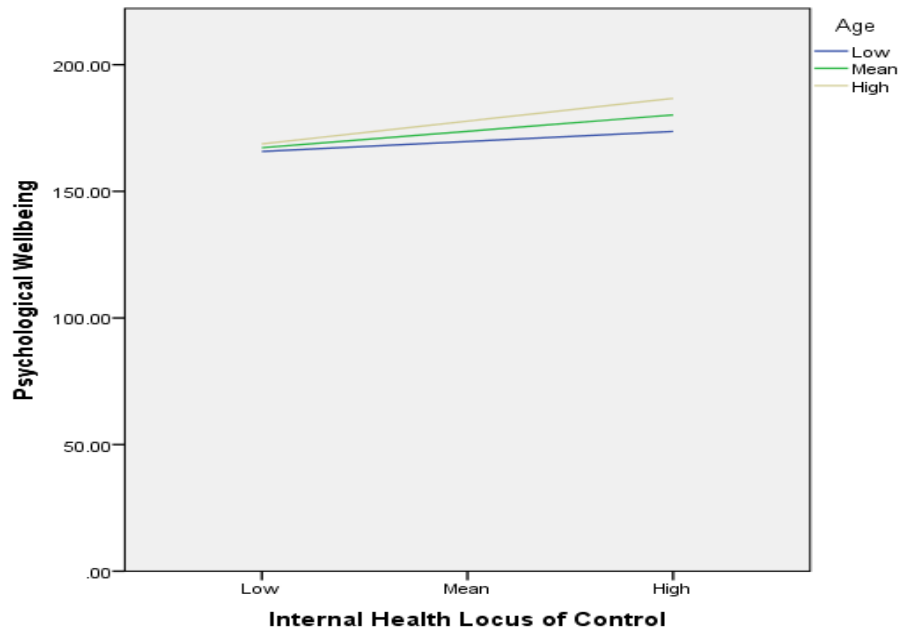


Figure 3. Summary of simple slopes graph

Test of simple slope graph indicated that internal health locus of control had a significant positive relationship with psychological wellbeing. Upon further inspection on the graph, the interaction results indicated that the influence of internal health locus of control on psychological wellbeing was moderated by age such that the higher the level of age, the greater the effect of internal health locus of control on psychological wellbeing. However, as age reduced, the effect of internal health locus of control on psychological wellbeing also reduced.

**Hypothesis 3:** Faith in breast milk moderates the relationship between breastfeeding self-efficacy and psychological well-being. Hierarchical multiple regression analysis was used to test this hypothesis.

From Table 6.0, the analysis indicated that the model in step one was significant accounting for a 50.1% variance in explaining psychological well-being [ $F(9, 120) = 13.36, p < .001, R^2 = .501$ ]. Thus, the controlled demographics significantly predicted psychological well-

being. At step two of the model, when some of the demographics were controlled for, age and faith in breast milk made a significant contribution (15.5%) in explaining the variance in psychological well-being,  $[F_{(13,116)} = 16.99, p < .001, \Delta R^2 = .155]$ . Thus, faith in breast milk did not significantly predict psychological well-being ( $\beta = .039, p > .001$ ). The third step revealed that the model accounted for (2.7%) variance in psychological well-being  $[F_{(13,116)} = 15.10, p < .001, \Delta R^2 = .04]$ . Hence, in line with the prediction made, the interaction between breastfeeding self-efficacy and faith in breast milk was not significant ( $\beta = -.012, p > .001$ ). Thus, the hypothesis that faith in breast milk moderates the relationship between breastfeeding self-efficacy and psychological well-being was not supported.

#### **4.3 Summary of Findings**

Findings from this study show that there was a significant positive relationship between breastfeeding self-efficacy and psychological well-being. Additionally, internal health locus of control significantly predicted psychological well-being. Furthermore, age moderated the relationship between internal health locus of control and psychological well-being. However, faith in breast milk did not moderate the relationship between breastfeeding self-efficacy and psychological well-being.

#### 4.0 Observed Model

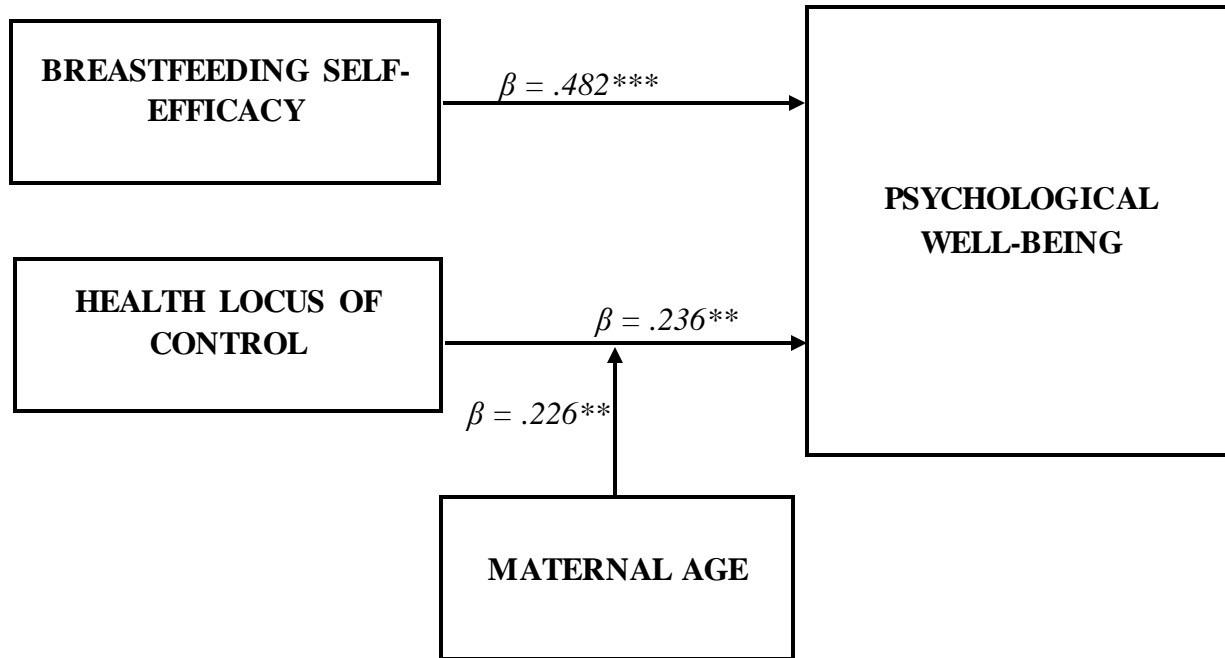


Figure 4. Summary of observed relationship between the study variables

#### 4.5 Description of Observed Model

The model above shows that there was a significant relationship between breastfeeding self-efficacy and psychological well-being. Internal health locus of control significantly predicted psychological well-being. Furthermore, age moderated the relationship between internal health locus of control and psychological well-being. On the other hand, faith in breast milk did not moderate the relationship between breastfeeding self-efficacy and psychological well-being.

#### 4.6 Qualitative Findings

According to Braun and Clarke (2006), in trying to develop major and sub-themes from data, it could be based on either the research question or a theoretical bearing. Themes and sub-themes developed from the data gathered from the focus group interviews were established based on the research questions of the study and not theoretically.

##### 4.6.1. Experiences encountered by breastfeeding mothers

Breastfeeding mothers go through numerous experiences. These experiences were grouped under two main themes namely *negative experiences* (with sub-themes; insufficient milk supply, sore nipple, being watched with an evil eye when breastfeeding in public, short maternity leave and babies refusing to suck) and *positive experiences* (with sub-themes; children staying healthy, serving as family planning method, creating bond between mother and child and saving money and time).

##### Negative experiences/Challenges with breastfeeding

Majority of breastfeeding mothers faced a lot of challenges especially during the period of exclusive breastfeeding. These challenges made it difficult for some of the mothers to accomplish the recommended period for exclusive breastfeeding. Sub-themes were developed from this broad theme. One of the challenges mentioned was insufficient milk supply. Some mothers complained that they do not produce sufficient amount of milk needed by the child, making it difficult to accomplish the six-month task without worrying.

*From the beginning, I was not getting the milk, it took like three days before the milk started coming. Even though I was feeding the child with NAN 1 [an infant formula] I was*

*worried about the breast milk not coming. I thought, eiii! what if it does not come but later it came. Although it's coming now, I do not get much. (FG1h)*

As a result of insufficient milk production, some mothers ended up eating more because they thought that amount of food eaten determines amount of milk production. They take in more food with the aim of producing more milk. This belief has led to the overeating of breastfeeding mothers which results in overweight and obesity:

*I'm gaining too much weight because I eat too much... I eat that much in order to get enough milk, if I do not eat more, I will not get enough milk. I do not like it because I'm losing my shape. In fact, I feel like introducing infant formula because I would prefer giving infant formula to the child than for me to lose my shape. (FG2f)*

Additionally, some breastfeeding mothers experienced cracks on their nipples during breastfeeding and complained it is very painful. This sometimes leads to discontinuity of breastfeeding. However, those who had support and encouragement endured the pain and continued to breastfeed.

*hmmmm, when I was breastfeeding my first born, I felt pain at my nipple because there was a crack, this made me stop breastfeeding for some days. It was my mother who kept pressuring me to continue breastfeeding with that breast. It was very painful. (FG1e)*

*... oooh! Okay, I thought just this one. When I had my first boy, he sucked too much that I often experienced sore at my nipple, especially within the first two months. It was very painful. But with this one, I have not experienced that. (FG4e)*

Some breastfeeding mothers had the belief that when a mother breastfeeds in public, something bad can happen to the mother or the child. A mother complained of feeling shy when breastfeeding in public. However, she raised another view that when a mother breastfeeds in public and someone with an evil eye looks at her, the mother or the child may suffer bad consequences.

*I feel so shy when breastfeeding in public because people will be watching. I also feel uncomfortable because someone with bad eyes can watch you... when someone with an evil eye looks at you while breastfeeding, the breast swells and the child will suffer from “asram” [malnutrition in children where the child grows lean and has a big head] ...the child will grow lean. (FG2g)*

Breastfeeding mothers who are employed by others feel worried leaving their babies at home in the hands of others because they have to resume work after three months maternity leave. Irrespective of the person they leave the child with, there is the feeling of worry and discomfort. Children are left with nannies, grandmothers, schools, among others. A mother complained of how worried she feels with the thought of leaving the child with a nanny.

*Ooooooh!! Aunty, it is not easy oooo!!!, I worry so much about that because the baby will be just three months. I will have to leave the child with a nanny since I cannot take her to the work place. ... It's not allowed to take a baby to the work place. I will be thinking about whether the nanny is taking good care of my child. (FG1a)*

Lastly, breastfeeding mothers worry when they realize their children are not sucking the breast. Majority of them see it as their fault that their children are not sucking. They feel they are the ones not doing things right and this affects their well-being.

*Oooh' well, in the beginning I had problem with the child not sucking, this made me so worried because I felt I was not doing something right or there was something wrong with the child. I went back to the hospital to complain and the nurse asked me to demonstrate to her how to breastfeed. When I did it, she said I was not doing it right and taught me how to do it properly. Even after that, the child was still not sucking. I became more worried so I went back to the nurse in two days' time to complain and she told me to express the milk if the child is not sucking. (FG1f)*

### **Positive experiences encountered by breastfeeding mothers**

Although breastfeeding mothers experience multiple challenges which affect their psychological well-being, it was recorded that breastfeeding mothers go through some positive experiences as well. Hence although exclusive breastfeeding has its own difficulties, there are some benefits associated with it. Sub-themes were developed from this broad theme.

Exclusive breastfeeding is globally known for its benefits for the child and among them is that breast milk helps to prevent infection thereby helping the children stay healthy. A mother explained that exclusive breastfeeding helps children to grow well and be intelligent children as well.

*It helps us to have children who are healthy, intelligent and smart... The breast milk opens their brains and prevents them from falling sick. (FG4a)*

Additionally, some mothers talked about the fact that exclusive breastfeeding serves as a family planning method for them. They explained that during the period of exclusive breastfeeding, their uterus contract thereby preventing pregnancy.

*I'm not afraid of getting pregnant because I know the exclusive breastfeeding serves as a family planning method. So anytime my husband comes around, I'm ready for him. I'm able to face him...I mean anytime he wants to sleep with me, I'm ready. (FG2f)*

*When you breastfeed well, it helps the uterus to contract so you do not get pregnant... I cannot explain it well but it is true because after giving birth, when the baby sucks too much, you can feel the pain in your lower abdomen, it shows the uterus is contracting.*

*Just last month, the nurse explained it to us during the child welfare service. (FG3d).*

Furthermore, during the period of breastfeeding, the mother looks and plays with the child. The child in turn stares at the mother as he/she sucks the breast. As this interaction takes place, it strengthens the bond between mother and child. A mother emphasized on the fact that exclusive breastfeeding creates happiness and bond between her and her child.

*It strengthens the relationship between you and your child, increases bonding or let me say it creates a bond between mother and child... Your child gets to know you well.*

**(FG2c)**

Some mothers explained that it helps them to save money while others talked about the fact that it saves time. A mother explained that because she is practicing exclusive breastfeeding, she is able to save more money as she need not buy infant formula. Others also believe it saves time as they do not have to waste time preparing the child's food. They believe that time can be used for something profitable.

*It helps us save money because we do not have to buy any infant formula, it also helps us save time because you do not have to waste your time to prepare the child's food, it is always ready. (FG3e)*

*I think it saves time because you do not have to wake up thinking about what the child will eat and the time you are going to use to prepare the food will be used for something else. (FG4d)*

#### **4.6.2 Perceived causes of the challenges/problems**

As breastfeeding mothers experience a lot of challenges, they also have diverse views on the causes of such problems. The various challenges and the mothers' views as to what the causes are, are as follows.

With respect to insufficient milk production, some mothers believe that a mother suffers from this condition when she does not eat enough food to help in milk production. Others also believe that a mother suffers from this when she doesn't take in certain types of food.

*I believe that it is when you do not eat well, when you do not eat enough food then you will not get enough milk to feed the child. (FG1a)*

*I also think that, we do not get enough milk because we do not eat well. We do not eat more soup. We can take food like mashed kenkey. (FG2g)*

A mother also complained that insufficient milk production is as a result of a child not stimulating the breast through sucking. According to her, the milk is produced when the child is put to the breast, hence a mother suffers from insufficient milk supply because she does not put the child to the breast for stimulation to take place.

*I understand that the milk will not be produced if the child does not suck the breast frequently. The nurses say that the more you put the baby to the breast, the more the milk comes. (FG2c)*

In relation to sore nipple, while others have the believe that it is as a result of the child sucking too much, others are of the view that it is as a result of poor attachment of the child to the breast. A mother complained that when the child is not fastened to the breast properly, that is when the mother suffers cracks on the nipple.

*Aaaaah!!, I also think the sore nipple occurs because we do not attach the babies well to the breast as the nurses taught us... they said we should ensure that the baby's neck is placed at the crook of the arm, the buttocks placed in our palm, the stomach touching our stomach, then we pull the baby up and ensure more of the dark part [areola] is in the baby's mouth. (FG1e)*

*When the baby sucks too much, that is when you feel pains at the nipple, then as you continue breastfeeding, you later realize there is sore at the nipple. (FG1b)*

In the case of weight gain, majority of breastfeeding mothers believe that amount of food eaten determines milk production. Since they are practicing exclusive breastfeeding, they had to eat more food to be able to produce more milk. Overeating led to weight gain. However, a mother mentioned that she thinks the others were gaining weight because they were not breastfeeding on demand and that exclusive breastfeeding rather helps a mother to lose weight.

*I'm growing too fat because I eat too much, if I do not eat well, it affects the amount of milk that comes. This baby cries a lot when I'm not producing sufficient milk. I do not want the child to cry so I have to eat well to be able to produce the milk. (FG1b)*

Conversely, a mother mentioned that for her she thinks the others are gaining more weight because they are not practicing the exclusive breastfeeding well, thus they are not breastfeeding on demand. She thinks exclusive breastfeeding rather makes the mother lose weight.

*As for me, I think people do not practice the exclusive breastfeeding properly that is why they claim they gain weight...they do not breastfeed as often as they should. Because I rather lost some weight when I was doing the exclusive breastfeeding. (FG2f)*

In the case of babies refusing to suck the breast, breastfeeding mothers believe that, when a child refuses to suck the mother's breast, it means the mother is not doing something right or the child is not feeling well.

*'Oooh' well, in the beginning I had problem with the child not sucking, this made me so worried because I felt I was not doing something right or there was something wrong with the child.... (FG1f)*

### **Perceived cause of positive experiences**

All the mothers were of the view that they experienced all the aforementioned positive experiences because they practiced exclusive breastfeeding.

*I think all the good experiences are as a result of us practicing exclusive breastfeeding, it makes our babies healthy because when your baby is always sick, you cannot be happy or feel good. (FG1g)*

*I'm having a good relationship with my husband as a result of practicing exclusive breastfeeding... my husband was so interested in me practicing it so when he realized I*

*was practicing it, he was excited and I'm also happy because he is happy. And he appreciates it so much. (FG3d).*

#### **4.6.3 Managing the challenges that come with breastfeeding**

Just as breastfeeding mothers have different views on the causes of the challenges that comes with breastfeeding, they also have different ideas as to how to manage the various conditions. Main themes developed include seeking for medical assistance and taking personal initiative.

##### **Seeking for professional assistance**

Few of the mothers when faced with challenges, seek for medical assistance. They do not rely on their own knowledge or on other people but take the initiative to approach health professionals for solution to their problem. Some of the conditions that mothers seek for medical assistance include sore nipple.

*As for me, when I had the sore at the nipple, I complained about it to a nurse at the weighing center and she asked me to continue breastfeeding because the milk contain something in it that will help the sore heal faster. Even though it was painful, I continued doing it and it got healed. (FG4d)*

##### **Taking personal initiative**

Majority of the mothers perceived the challenges that come with breastfeeding as a minor issue. Hence, they handle these conditions by themselves without seeking for medical assistance. Sore nipple, insufficient milk supply among others, were being handled by breastfeeding mothers at home without seeking for medical assistance.

Breastfeeding mothers have varying ideas about what to do when they have a problem with milk production. While some think they should eat certain amount or type of food, others believe they need to apply shea butter on the breast. However, others also believe pulling of the nipples help stimulate the breast for milk production.

*I know that when you eat foods like mashed kenkey with lots of groundnut, it also helps to get enough milk. Taking Vitamilk is also good, it helps you to get more milk. (FG4e)*

*I also know that if the milk is not coming, you can be pulling the nipples, when you pull the nipples, the milk will come. You can also rub the breast with shea butter and it will help the milk to come. (FG1h)*

Whereas some mothers decide to seek for medical assistance when faced with sore nipple, others do not perceive it as a major health problem so take their own initiatives to handle it. They explained that the application of herbs is effective. A woman emphasized on the fact that the use of herbs is equally effective as she has witnessed a neighbor applying herbs on her sore nipple which healed the sore.

*One lady in our house had a sore at the nipple and she applied some herbs on the sore.*

*...It took time but it healed. (FG3c)*

In terms of short maternity leave, some working mothers were of the view that since their children cannot be taken to the work place, they will have to apply for extra months of leave in order to accomplish the task. A mother explained that she will wait till the child is six months old before she resumes work.

*Yes, I will, even though I work, I will wait till the child is six months old before I resume work. ... Since they will not allow me to take the child to work, I will take additional months of leave, even though they will not pay me. (FG4e)*

With reference to breastfeeding in public, most breastfeeding mothers were of the view that to prevent others from staring at them, they cover themselves with cloth when breastfeeding in public.

*I usually feel shy when I have to breastfeed in public because people have been staring, especially men, I just do not understand them. 'Mtchweeee'. Because of them I have to cover myself with a cloth. (FG1d)*

#### **4.6.4 Impact of breastfeeding experiences on the mother**

The aforementioned experiences (negative and positive experiences) encountered by breastfeeding mothers have impact on them. The main themes that emerged include negative impact of the experiences and positive impact of the experiences.

##### **Negative impact of the experiences on the mother**

As the mothers encounter negative experiences or challenges, these challenges affect them in a negative manner. It affects them both physically and psychologically. There were instances where breastfeeding was perceived to be so demanding that it made some mothers feel tired and weak from continuous breastfeeding. Others felt pain as they sat to breastfeed.

*Sometimes I feel dizzy and weak, especially when I'm breastfeeding while I have not eaten and I'm feeling hungry... You know what, sometimes you may be doing something and be hungry, then you hear the child crying, immediately, you have to stop everything and breastfeed. (FG4a)*

*I went through caesarean section, I feel so much pain when I sit to breastfeed but because the milk may pass through the child's nose if I should lie to breastfeed, I have no other option than to sit. (FG4h)*

In addition to the physical strain, breastfeeding mothers experience some psychological implications as a result of the negative experiences associated with breastfeeding. These include stress, worry, regrets, overburdened and unhappiness. A mother complained about being worried and unhappy over losing her shape. She continued by emphasizing that her husband has also been complaining about her weight gain.

*I am not happy at all with this figure loss. I feel exclusive breastfeeding is making me lose my figure, I think it is better I introduce other feeds. I have not done it because I know the benefit of exclusive breastfeeding, I did it for my other two children but because they were girls they were not sucking much and so I was not eating much. I know if I tell my husband I want to stop, he will support because he has been complaining about my weight gain. (FG2f)*

Some participants get so worried because they think breast milk alone is not enough for the child as according to them the children do not gain weight. A participant said she wishes to end the exclusive breastfeeding because the health workers reproach her for not feeding the child well. But if she should do that, they would again reproach her for not practicing exclusive breastfeeding.

*Aaah, hmmm! I get so worried because I know my baby is not gaining enough weight. This is because the milk alone is not enough. When I come for weighing, the nurses reproach me as if it's my fault that the baby is not gaining weight. I want to give the child*

*other feeds but when the nurses get to know I'm not practicing exclusive breastfeeding, they will talk. (FG1b)*

*I'm worried because I know the breast milk alone is not enough. I practiced it for my previous children but I think the breast milk was not enough for them so they were not growing big. The nurses kept complaining I was not breastfeeding them well and other people also thought I was not taking good care of them. I wish I had not done it... Even though I'm doing it, I'm not happy about it. (FG2a)*

Some mothers expressed the feeling of regret and discouragement because they never anticipated that they might go through such difficulty when practicing exclusive breastfeeding. A mother explained how she regretted choosing exclusive breastfeeding because her movement was restricted.

*The truth is I regretted choosing exclusive breastfeeding but I could not say it to anyone. This was because from the beginning, my mother was against exclusive breastfeeding. She suggested I give water to the child and I refused. When I later realized it's stressful and was restricting my movement, I had to keep quit and endure. (FG3g)*

*Okay, when I was breastfeeding my first born, I initially felt pain at my nipple so I stopped breastfeeding for some days. It was my mother who kept pressuring me to continue breastfeeding with that breast. It was very painful. (FG1e)*

Lastly, others complained of feeling overwhelmed and helpless about their situation and wished they could do something to remedy the situation but for the good of the child, they endured whatever they were going through.

*I also feel bad because I have two other children and my husband does not want us to have a house help. The work load is too much on me since I do everything by myself. As a result, I'm often tired and weak. I always have something (work) to do. (FG2b)*

*I became worried because I was eating too much. I gained more weight and my husband started complaining about it. I did not like it but I had no choice, I had to eat in order to get more milk. (FG3f)*

### **Positive impact of the experiences on mother**

Just as the challenges have negative impact on the mothers, the positive experiences also have impact on the mother. However, in this case, the impact is in a positive direction. Most breastfeeding mothers expressed their joy as they faced those various positive experiences. The positive experiences have psychological implications on the mothers which include feeling happy, proud, improved confidence, secured, feeling good as a mother and strengthening the relationship between married couples. A mother expressed her feelings by stating how happy she was that the child is healthy, she went on to explain how it makes her feel like she is a good mother since according to her, not all mothers are able to practice exclusive breastfeeding even though they are aware of the benefits.

*I feel happy because the child is healthy and I also feel I have been a good mother...*

*Oooh!!! It's not every mother who can practice exclusive breastfeeding oooh!!! You go through a lot (pain at the nipple, pain in the breast, feeling tired always). It's only a good mother who will endure all this and still practice exclusive breastfeeding because she knows it's good for the child. (FG4c)*

Additionally, some mothers felt proud for being able to accomplish the six-month period of exclusive breastfeeding and also because their children grow well. A mother explained that her children have been growing well thanks to exclusive breastfeeding and anytime she goes to the child welfare clinic, the health workers congratulate her for taking good care of her children.

*I feel so proud because my children grow well because of exclusive breastfeeding, and when I come for weighing, the nurses keep congratulating me for taking good care of the children. (FG1b)*

*I feel so proud as a mother since it's not every mother who is able to accomplish the six months, hmmm! It is not easy ooooo, the stress involved. (FG3e).*

Some mothers explained that practicing exclusive breastfeeding has increased their confidence level as they initially thought they could not practice exclusive breastfeeding for the recommended period.

*It has improved my confidence level because from the beginning, I had some doubts as to whether I can do the six months but by God's grace I have done it. Now I know that if you really want to do something, you can do it. (FG3g)*

Mothers also feel very secured when they see their children grow well and not fall sick. Mothers felt happy knowing their children are happy and healthy. A mother reported that she felt happy and secured because her child had never been sick.

*I feel good and secured because I know my child is secured from illnesses, the child has never been sick. I'm so happy I did it. Even though it wasn't easy, it has been helpful. (FG3g)*

Lastly, the relationship between married couples strengthens as a result of practicing exclusive breastfeeding. Mothers feel happy knowing that their husbands appreciate them for practicing exclusive breastfeeding and some husbands are also happy to see their wives practicing exclusive breastfeeding.

*I'm having a good relationship with my husband as a result of practicing exclusive breastfeeding... my husband was so interested in me practicing it so when he realized I was practicing it, he was excited and I'm also happy because he is happy. And he appreciates it so much. (FG3d).*

#### **4.6.7 Summary of findings**

From the themes, the respondents saw exclusive breastfeeding as challenging in the sense that exclusive breastfeeding comes with varying challenges. These challenges rendered some mothers not capable of accomplishing the six-month recommended period. Nevertheless, these mothers also encounter positive experiences. The mothers have diverse views in terms of the causes of the challenges, however, they all believe exclusive breastfeeding is the cause of all the positive experiences. In terms of their coping strategies, while some seek for professional assistance, others take personal initiatives in handling the challenges. Finally, in terms of the impact of these experiences, while the negative experiences affect their well-being negatively, the positive experiences improve their well-being.

## CHAPTER FIVE

### DISCUSSION, RECOMMENDATIONS AND CONCLUSION

#### 5.0 Introduction

The aim of this study was to explore the experiences of breastfeeding mothers and to examine the relationship between psychological factors related to exclusive breastfeeding and psychological health of breastfeeding mothers. In line with the above aim, quantitative and qualitative findings were obtained. In this chapter, findings from the data are discussed with reference to related studies. The practical implications of the findings are also discussed. Limitations as well as recommendations for further studies are also presented. A conclusion capturing the issues obtained in the study ends the chapter.

#### 5.1 Discussion of Quantitative Findings

##### 5.1.1 Breastfeeding self-efficacy and Psychological Well-being

The results revealed that breastfeeding mothers who had high self-efficacy had improved psychological well-being. This finding is consistent with the study of Lawal and Idemudia (2017) which found a positive association between breastfeeding self-efficacy and several aspects of psychological well-being. Specifically, Lawal and Idemudia (2017) found that mothers who had high breastfeeding self-efficacy had a sense of positive relation with others, sense of autonomy, environmental mastery, and self-acceptance. The results of the current study confirm also the findings revealed by Thorsteinsson, Loi and Rayner (2017). They reported that while mothers with high self-efficacy reported better functioning on both physical and mental health, those with low self-efficacy are less likely to use cognitive strategies to reduce negative effects. Thus, those mothers are easily discouraged from practicing exclusive breastfeeding when faced with challenges. As observed in Thorsteinsson, Loi and Rayner's (2017) study, the

qualitative dimension of this study showed how some mothers continued to breastfeed even in the face of challenges while others stopped breastfeeding when faced with the challenges associated with breastfeeding. This implies that those who continued to breastfeed when faced with challenges had high self-efficacy while those who were discouraged had low self-efficacy. This result is also supported by the self-efficacy model which explains that a person's efficacy-expectations (magnitude or strength) leads to the behavior of the person, thus the decisions the person will take, the effort the person will put in whatever the person is doing and how persistent the person will be in achieving his/her goal. The ability to achieve the goal also leads to an outcome, thus psychological well-being or distress. Hence, mothers who have high self-efficacy are able to choose exclusive breastfeeding as an infant feeding method, put in more effort to overcome whatever challenges they may face and are persistent in their action, thus continue to breastfeed, thereby achieving the six-month recommended period which leads to improved psychological well-being.

### **5.1.2 Health locus of control and well-being**

The results also revealed a significant positive relationship between health locus of control and psychological well-being. Specifically, internal health locus of control was significantly related to well-being. This implies that breastfeeding mothers who have internal locus of control had improved psychological well-being. This result supports the findings of Garcia, Ramirez and Jariego (2002) as they reported that some aspects of locus of control significantly contribute to one's psychological well-being regardless of the group being studied. According to them, internal locus of control positively correlated with psychological well-being, while external locus of control related negatively to psychological well-being. However, the qualitative findings of this study refuted the result of Garcia and associates as from the

qualitative angle, mothers who had external locus of control, specifically those with belief in significant other gained encouragement and support from these significant people, hence were able to cope well with the challenges and so attained well-being. Furthermore, the current results of the qualitative study confirm the report of Cross, March, Lapsley, Byrne and Brooks' (2005) study, which reported that those with higher internal locus of control experienced less disability and pain while those with higher external locus of control experienced more pain and worse functioning. Thus, patients who had high internal locos of control were able to function well physically as well as psychologically while patients who had high external locus of control functioned poorly both physically and psychologically.

Findings from the qualitative aspect of this study support the above statements as some mothers reported that although they were faced with challenges, they continued to breastfeed regardless of the pain involved. Meanwhile, others reported that they stopped breastfeeding when faced with the same challenges. Although both experienced pain, those with internal locus of control functioned better both physically and psychologically by not perceiving the pain as a hindrance to their goal, but rather continued to breastfeed. However, those with external locus of control functioned poorly both physically and psychologically by perceiving the pain as a hindrance to their goal therefore stopped breastfeeding. In addition, the theory of health locus of control supports the current result. In reference to locus of control theory (Rotter, 1966), it is likely that women with a high internal locus of control may participate in problem-focused coping style (continues breastfeeding despite sore nipples) when faced with breastfeeding difficulties. This act will increase their confidence, fortify their intent to exclusively breastfeed and in turn influence their psychological well-being.

### **5.1.3 Age on the relationship between internal locus of control and well-being**

In line with the third hypothesis (which was confirmed), the results revealed that maternal age moderates the relationship between internal health locus of control and psychological well-being. Thus, mothers whose age was twenty years and above had internal locus of control which led to improved psychological well-being. This confirms the results of Lawal and Idemudia's (2017) study. They reported that maternal age (mothers above teenage) was directly associated with psychological well-being, specifically, environmental mastery. Furthermore, internal health locus of control and maternal age had an interaction effect on sense of autonomy, positive relations with others and self-acceptance, which are all aspects of well-being. Again, the finding is consistent with McMahon et al. (2011), as they reported that older maternal age was associated with lower depression and anxiety symptoms and greater psychological hardiness (resilience). They further explained that primiparous mothers at older ages have a psychological advantage over their younger colleagues since they are more independent (less controlled by their partners), more resilient, and experienced fewer depressive symptoms as well as anxiety during pregnancy. Contrary to the results of this study, Boivin et al. (2009) reported that younger mothers expressed warmth and fewer depressive symptoms while older mothers on the other hand expressed less warmth towards a spouse and more depressive symptoms. Thus, older maternal age was associated with poor psychological well-being. According to them, age comes with biological and relationship changes, hence that explains why older maternal age is associated with poor psychological well-being.

#### **5.1.4 Faith in breast milk on the relationship between self-efficacy and well-being**

It was hypothesized that faith in breast milk moderates the relationship between breastfeeding self-efficacy and psychological well-being. Thus, the nature of a mother's faith in breast milk will either strengthen or weaken the relationship between self-efficacy and well-being. However, this hypothesis was not supported. The result revealed that irrespective of the nature of the mother's faith in breast milk (either poor or high faith in breast milk) once there is high self-efficacy, improved well-being was achieved. Some mothers had poor faith in breast milk, yet they continued to breastfeed, while others with same poor faith in breast milk discontinued. The findings from Hegney, Fallon and O'Brien's (2008) study may explain why the hypothesis was not supported as they reported that mothers who practice exclusive breastfeeding and those who discontinued practicing exclusive breastfeeding both have the perception of insufficiency of breast milk for the baby, just that the perception was higher among those who discontinued. It can be said that irrespective of the nature of faith in breast milk, some mothers continued to breastfeed due to other factors like high self-efficacy. Hence, some mothers continued practicing exclusive breastfeeding, while they believed the milk alone is not enough for the child. However, others have good faith in breast milk yet discontinued. O'Brien, Buikstra and Hegney (2008) further explained that the likelihood of continuing to fully breastfeed increased by 36% for every one-point increase in faith in breast milk score. This implies that the likelihood to continue to fully breastfeed is not 100% when there is an increase in faith in breast milk, therefore, mothers may have faith in breast milk but may not practice exclusive breastfeeding. Again, mothers were 30% less expected to add other feed for each additional one-point decrease in faith in breast milk score. Although the percentage may be low, it indicates that

some mothers continue to breastfeed even though they have low faith in breast milk, and this might be the case in this study.

The qualitative dimension of this study recorded that some mothers continue to practice exclusive breastfeeding though they had poor faith in breast milk. They explained that they practice because the nurses reproach them for not practicing. Meanwhile, in the same study, some talked about discontinuing because they had poor faith in breast milk. This supports the results of Tawiah-Agyemang et al. (2008) as they reported that one of the issues that made the mothers not to continue with exclusive breastfeeding was that they perceived breast milk as not sufficient for the baby, as such they cannot feed the babies on that alone. This made the mothers resort to giving infant formula. Again, Diji et al (2016) also reported same result as they revealed that the three leading factors that hinder the mother from practicing exclusive breastfeeding includes low faith in breast milk. The above reasons may have contributed to the hypothesis not being supported. The conflicting results (mothers having poor faith yet some continue while others discontinue and others having good faith yet discontinue) might have been the reason why the variable did not moderate the relationship between self-efficacy and well-being.

## **5.2 Discussion of Qualitative findings**

The qualitative dimension of the study explored the experiences encountered by breastfeeding mothers. It focused on the experiences the mothers face, their perception on the causes of the experiences, how they cope with the experiences and the impact those experiences have on their health. Under each research question, main themes and sub themes were developed. Discussion of the findings will be centered on the main and sub-themes.

### **5.2.1 Experiences encountered by breastfeeding mothers**

The first organizing theme was about the experiences breastfeeding mothers encounter. Two main themes were developed based on the findings from the study. These included negative and positive experiences. Specifically, the negative experiences make it difficult for most mothers, especially the first-time mothers, to accomplish the recommended period of exclusive breastfeeding. The negative experiences are to be addressed by health professionals if policies promoting early initiation and continuation of breastfeeding are to realize a decline in neonatal mortality recommended by Edmond, Zandoh, Quiley, Amenga-Etego and Kirkwood (2006). The Older and multiparous mothers are able to continue practicing exclusive breastfeeding than their younger first-time counterparts, although they all face the same experiences. The older multiparous mothers seemed more confident and committed to breastfeeding than the first-time mothers, due to the infant care experiences (Brand, Kothari and Stark, 2011). The most common challenge among breastfeeding mothers was the belief that the breast milk alone is insufficient for the child, hence the adoption of formula feeding. This could be as a result of their poor knowledge on the sufficiency of breast milk for the child. Even though it has been suggested that breast milk contains all the necessary nutrients required for child growth and cognitive development (Castro et al., 2017), most mothers do not believe this. Furthermore, some mothers are not able to differentiate a “hunger cry” from other cries of the child and therefore they assume that every time a child cries, it means that the child is hungry even after breastfeeding (Goosen, McLachlan and Schubl, 2014).

Outcome of this study is consistent with findings from Mogre et al.’s (2016) study, which reported that the most common form of negative experience among breastfeeding mothers was insufficient breast milk. Because these mothers have inadequate knowledge about the negative

experiences, they tend to discontinue exclusive breastfeeding when they are faced with such challenges. Hence, any policy to promote exclusive breastfeeding must address the negative breastfeeding experiences, especially, among first time mothers.

Irrespective of the several negative experiences, breastfeeding mothers also encountered positive experiences which served as a source of encouragement for them to accomplish the six-month period. The belief that children stay healthy and mothers save time and money as a result of practicing exclusive breastfeeding were the major reasons why most mothers want to practice exclusive breastfeeding. Women practicing exclusive breastfeeding do not buy infant feed and so may be able to save more money. Additionally, these mothers do not spend time at the hospital caring for their sick children as the children are always healthy. This is in consonance with the report from Smith, Thompson and Ellwood (2002). They reported that mothers who practice exclusive breastfeeding do not spend their income and time on health expenditure and infant feed. Since the positive experiences motivate the mothers to practice exclusive breastfeeding for the recommended period, primary health workers must do well to emphasize on them when educating the mothers.

### **5.2.2 Causes of the experiences**

Mothers encounter a lot of breastfeeding experiences hence they hold various perceptions with respect to the causes of the experiences. For Ghana to attain the 90% rate recommendation made by WHO, health professionals are to take a critical look at the poor knowledge and cultural beliefs among some mothers with respect to the causes of the negative experiences. The linkage project in Northern Ghana (2003) reported that there are guidelines, manuals and counseling cards to address women's perception of lack of milk. However, much should be done with respect to other perceptions such as the belief about 'asram' (malnutrition among children where

the child grows lean and has a big head), which the mothers believe is caused by a spiritual factor (the belief that the illness was intentionally put into the babies by witchcraft or spiritual means). These cultural beliefs exist as a result of the ineffective education given to the mothers by health workers. As a result of this belief, the mothers prefer feeding their children with infant formula when they are in public places. According to Hill et al. (2003), Ghanaians hold the belief that “asram” has a personalistic cause. Thus, when a breastfeeding mother or a pregnant woman is watched in public by an ‘evil eye’, it leads to the phenomenon. Additionally, Hill et al. (2008) reported that Ghanaians are of the belief that “asram” is a condition which has a spiritual cause. The condition usually happens during the exclusive breastfeeding period, when mothers are not able to cope with the breastfeeding demand and are unable to meet the nutritional needs of the child. Such a child may develop symptoms of malnutrition (“asram”). It has been reported that malnutrition among young children in West Africa starts between four to six months of age, thus during the exclusive breastfeeding period (Davis, Tagoe-Darko & Mukuria, 2003). Similarly, Amsalu and Tigabu (2008) reported that lack of exclusive breastfeeding was commonly seen in children with severe malnutrition. Although, the most basic cause of “asram” is malnutrition, these mothers do not accept that. This cultural belief has far-reaching effects on nutrition and health of children. Such belief and poor knowledge on the causes of these experiences is a critical issue which needs to be address by the health sector as it serves as a hindrance to achieving the 90% rate of exclusive breastfeeding. Much can be learnt from the experiences and the perception of breastfeeding mothers in order to promote exclusive breastfeeding (WHO, 2003).

Nonetheless, breastfeeding mothers believe that practicing exclusive breastfeeding results in positive experiences. This belief may be due to the education given to them by health workers,

who tend to emphasize more on the importance of exclusive breastfeeding. For instance, health workers encourage mothers to practice exclusive breastfeeding because it serves as a family planning method. During such periods, some mothers do not experience their monthly flow, since the body is actively engaged in milk production. Mezzacappa (2004), reported that during the period of exclusive breastfeeding, prolactin (hormone responsible for milk production) is highly produced while reproductive hormones are less produced. Mothers seemed happy when they encounter the positive experiences and most continued exclusive breastfeeding as a result of it, hence health professional should do well to emphasize on them.

### **5.2.3 Coping with the challenges associated with breastfeeding**

Breastfeeding mothers have diverse ways of coping with their experiences. Some seek for medical assistance while others take personal initiatives. Those who sought for professional assistance were either young, first-time mothers with little experience in breastfeeding, or were older and educated women who were committed to breastfeeding. This finding is consistent with result of Asemahagn's (2016) study, which reported that young and first-time mothers as well as older and educated mothers often seek professional help when faced with breastfeeding challenges. Mothers who seek professional assistance tend to gain more knowledge about the condition and therefore learn to manage it properly. This is in line with the findings of Hegney et al. (2008), who reported that mothers who continued exclusive breastfeeding relied mostly on health professionals.

However, most of the negative experiences faced by mothers are often managed at home by themselves. This is mostly the case because most of the mothers are older, multiparous mothers who have more experience in breastfeeding. Such mothers may relatively feel more confident in themselves in handling breastfeeding challenges than their younger counterparts

(Awery, Zimmermann, Underwood & Magrus, 2009). Also, some young first-time mothers are likely to manage breastfeeding challenges at home because they can rely on their elders for support and assistance. Those who take personal initiatives when faced with challenges often end up discontinuing exclusive breastfeeding due to inappropriate practices which worsen their condition. For instance, some mothers apply herbs to their nipple when faced with sore nipple. This unhygienic practice causes infection in the breast. Once there is a cut, there is free access to the breast tissue, hence bacterial infection may occur leading to mastitis (Amir, Forster, Lumley & McLachlan, 2007). The discontinuity of exclusive breastfeeding results in psychological distress mainly because the mothers feel inadequate and guilty, that they could not accomplish the six-month recommended period. This finding is consistent with findings from Hegney et al. (2008) who reported that mothers who were unable to manage breastfeeding challenges properly at home, suffer from psychological distress as a result of feeling guilty and inadequate. Intervention programs and strategies such as mother support groups, effective counselling, improved healthcare practices and an all-inclusive approach that involves both the health professionals and the community at large, could improve the adherence to exclusive breastfeeding despite the negative experiences (WHO, 2003).

#### **5.2.4 Impact of the experiences on the mother**

There are both negative and positive implications of the experiences faced by breastfeeding mothers. For negative implications, mothers experience physical strain as a result of continued breastfeeding and lack of support from relatives and health workers. Due to the physical strain and weakness, most mothers are not able to accomplish the six-month period. It appears that breastfeeding mothers need all the support they can get from relatives, spouses, and health workers, in order to accomplish the six-month exclusive breastfeeding goal. Similarly,

those who went through caesarean section also experience pain and physically weakness during breastfeeding. This was also reported by Hobbs, Mannion, McDonald, Brockway and Tough (2016). Apart from physical strain, breastfeeding mothers also go through stress, which is the most common form of psychological distress experienced by them. The stress may be as a result of the breastfeeding demand and lack of support. Hegney et al (2008) reported that extreme stress causes breastfeeding mothers to reach a breaking point; a point of extreme emotional and physical exhaustion which prompts a decision to either continue or cease breastfeeding.

The health locus of control theory supports this finding, as it explains that mothers who have external locus of control are unable to cope well when faced with breastfeeding challenges. The discontinuity of exclusive breastfeeding often leads to psychological distress. Effective counselling during postnatal and perinatal period and the need for community mobilization as well as support by spouse and other relatives will be helpful as the mothers need enough rest for them to accomplish the six-month period (Quinn, Guyon, Schubert, Hainsworth & Martin 2005). Although breastfeeding mothers face psychological distress due to the negative experiences, there are also some positive implications. There is the feeling of pride, security, fulfillment, improved confidence, and happiness. These feelings may be as a result of the fact that the mothers were able to accomplish the six-month period. Some mothers initiate exclusive breastfeeding but discontinue when faced with challenges. Hence, those who are able to continue feel proud and fulfilled that they have been able to endure those challenges and yet accomplished the six-month recommended period. Furthermore, some mothers who lacked initial confidence that they could practice exclusive breastfeeding often have improved confidence when they are able to accomplish breastfeeding for the six-month period. This supports the finding of Hegney et al. (2008) who reported that mothers who were able to continue exclusive breastfeeding felt

proud for being able to practice exclusive breastfeeding. Although some mothers have the initial confidence that they can accomplish the six-month period, being able to accomplish that goal further improves their well-being. Similarly, the quantitative part of the study indicates that mothers with high self-efficacy are able to accomplish the six-month period of exclusive breastfeeding, leading to an improved well-being.

Based on the findings and discussion, it can be said that the two methods do complement each other. Thus, the qualitative dimension of the study confirmed the results of the quantitative study. Nonetheless, there were some differences in the two. While the quantitative study emphasized on the fact that internal locus of control leads to well-being and external locus of control leads to distress, the qualitative study refuted this. It was noted that those with internal locus of control coped well with the challenges which led to improved well-being. However, those with external locus of control specifically belief in significant others (relatives and health workers) were motivated and had encouragement from those significant others when faced with challenges, therefore coped better, and continued breastfeeding, which also led to improved well-being. Additionally, while the quantitative study suggested that only mothers with initial high breastfeeding self-efficacy achieved improved well-being, the qualitative aspect revealed that though some mothers initially had low breastfeeding self-efficacy, through support and encouragement from others, they were able to accomplish the six-month period and had their confidence level improved.

### **5.3 Limitations /Suggestions for future studies**

Although there is a bilateral relationship between physical health and psychological health, the study failed to assess the physical health status of the mothers. Some participants might have scored low on the well-being scale as a result of their poor physical health and not

because they were not practicing exclusive breastfeeding. Therefore, future studies should assess the physical health of the mothers to ensure their physical health is not influencing their psychological health. Additionally, the use of purposive and convenience sampling to some extent deprived the study of some advantages that could be obtained by using randomization. Such methods are highly vulnerable to selection bias and sampling error therefore generalizing findings is impossible. Hence, future studies should use a probability sampling technique to prevent selection bias and sampling error for generalization to be possible. Furthermore, the current study failed to make inquiries as to whether some participants had ever taken part in previous studies or program designed to improve their self-efficacy or internal health locus of control levels as this might have influenced the outcome of the study. Therefore, future studies should assess this to ensure participant characteristics are evenly distributed. Lastly, the sample size used for the study is small and this might have resulted in the results obtained. Hence, generalization of the outcome to the rest of the population is not possible, bearing in mind it would not be representative of the total population of exclusive breastfeeding mothers in Ghana. If a larger sample size had been used, it's possible the outcome of the study might have changed. Therefore, future studies should try and use a larger sample size that could be more representative of breastfeeding mothers in Ghana.

### **5.5 Recommendations for Clinical Practice/Policy**

In practical terms the findings of the study suggest that breastfeeding mothers go through some experiences which require them to possess certain levels of psychological resources (breastfeeding self-efficacy and internal health locus of control) before they can accomplish the six-month recommended period of exclusive breastfeeding for improved well-being. As such, there is the need to ensure systems are put in place for effective postnatal support for

breastfeeding mothers. Additionally, clinicians are to consider screening to ascertain the level of those psychological factors among pregnant women and breastfeeding mothers since this has been long overdue. Furthermore, clinicians should design educational interventions with element of cognitive skills, problem solving and self-efficacy training to equip the women with the skills necessary to overcome breastfeeding difficulties. Over the years, clinicians have placed too much emphasis on the benefits of breastfeeding and yet, failed to address the issue of how breastfeeding experiences influence psychological health. There is therefore the need for amendment in the health sector of the nation by the incorporation of psychological assessment and intervention programmes as part of the care given to different populace apart from mentally ill individuals.

For Ghana to achieve WHO's recommendation of 90% rate exclusive breastfeeding, some breastfeeding policies need to be amended. To begin with, the labor law on maternity leave needs to be extended beyond 12 weeks, since short maternity leave is known to be a major hindrance to exclusive breastfeeding. Additionally, employers should have a policy which exempts breastfeeding employee from certain duties that require long separation from their babies. Also, a policy clearly stating the need to incorporate psychological health care into the antenatal, postnatal and child health services in the country should be considered. Lastly, the educational curriculum of the health training schools should be amended to ensure primary health care givers (midwives and community health nurses) are well versed in some areas of psychological health, to enable them administer comprehensive education on some psychological factors affecting the antenatal, postnatal and mothers attending the child welfare services.

Much focus has over the years been on the experiences and various challenges faced by breastfeeding mothers. The results of this study should serve as a wake-up call for health professionals as mothers still hold a primitive perception in terms of the causes and coping mechanism of the experiences. There is therefore the need for psycho-education of mothers on scientifically proven causal factors of issues relating to breastfeeding and maternal health.

## **5.6 Conclusion**

Some psychological factors related to exclusive breastfeeding such as breastfeeding self-efficacy and internal health locus of control were noted to have direct influence on well-being. Additionally, maternal breastfeeding experiences also influence psychological health. Despite the efforts by researchers to show how breastfeeding experiences and psychological factors influence psychological health, policy makers as well as health workers have not yet incorporated this vital information into the health care system. In view of the outcome of the study, policy makers as well as health workers have to consider revising the health care services available for breastfeeding mothers in Ghana, by considering psychological assessment and interventions as viable aspects of the health care services.

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## APPENDICES

### APPENDIX I

#### ETHICAL CLEARANCE



## UNIVERSITY OF GHANA

### ETHICS COMMITTEE FOR THE HUMANITIES (ECH)

*P. O. Box LG 74, Legon, Accra, Ghana*

My Ref. No.....

1st November, 2017

Ms. Marilyn Love Davis  
Department of Psychology  
University of Ghana  
Legon

Dear Ms. Davis,

**ECH 032/17-18: PSYCHOLOGICAL FACTORS INFLUENCING EXCLUSIVE BREASTFEEDING AND PSYCHOLOGICAL HEALTH BREASTFEEDING MOTHERS IN ADENTAN MUNICIPAL**

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: 31/05/18  
On Agenda for: Initial Submission  
Date of Submission: 18/09/17  
ECH Action: Approved  
Reporting: Quarterly



Please accept my congratulations.

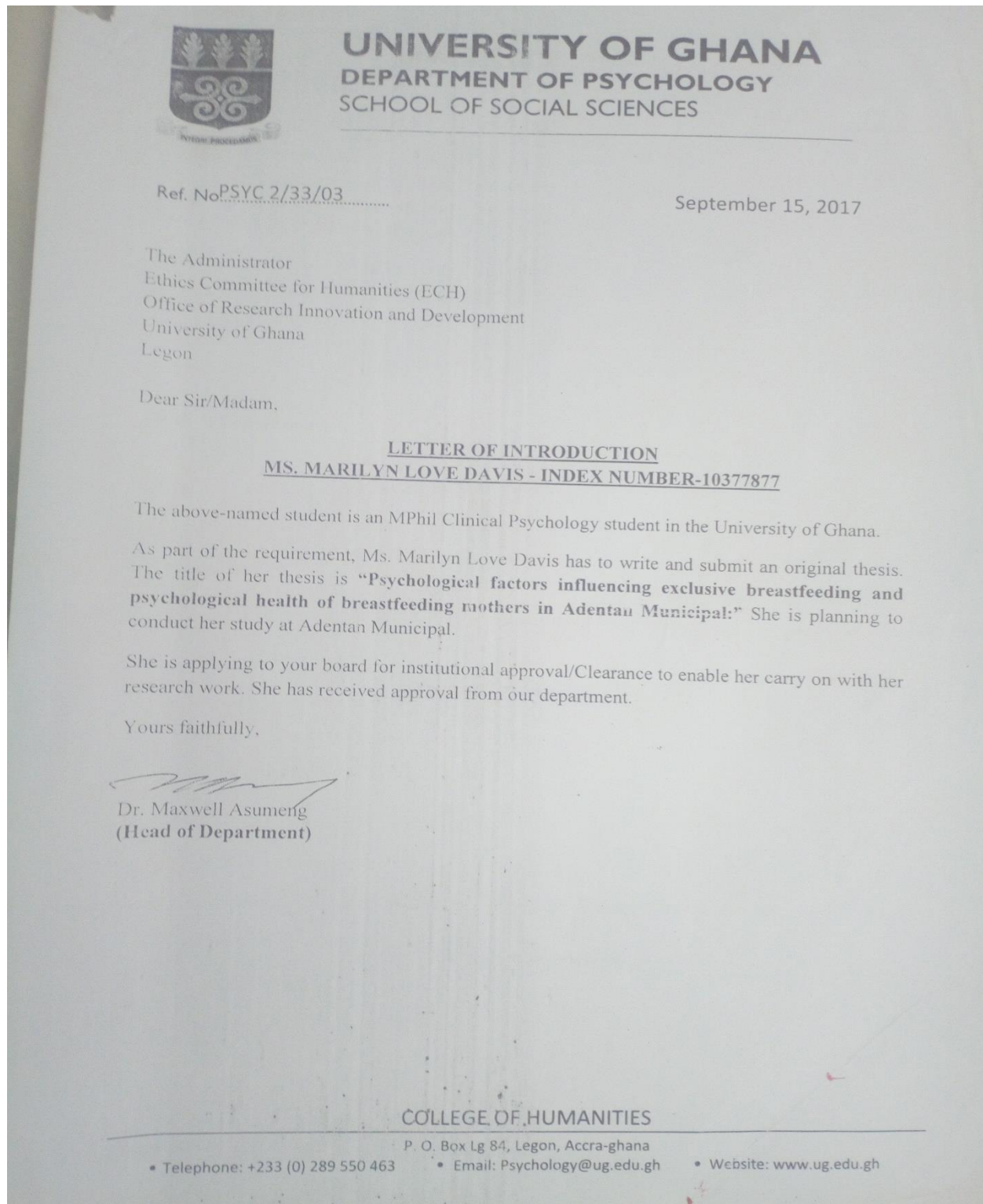
Yours Sincerely,

Rev. Prof. J. O. Y. Mante  
ECH Chair

CC: Dr. Maxwell Asumeng, Department of Psychology, University of Ghana.

**APPENDIX II**

**INTRODUCTORY LETTER**



**APPENDIX III**

**CONSENT FORM**

**UNIVERSITY OF GHANA – LEGON**

**DEPARTMENT OF PSYCHOLOGY**

**PSYCHOLOGICAL FACTORS INFLUENCING EXCLUSIVE BREASTFEEDING AND  
PSYCHOLOGICAL WELL-BEING OF BREASTFEEDING MOTHERS IN  
ADENTAN**

Marilyn Love Davis

Supervisors: Professor Charity Akotia

Dr. Joana Salifu Yendork

**1. Invitation to Participate and Description of the Project:** You are being invited to willingly participate in the study on the extent to which breastfeeding self-efficacy, faith in breast milk and health locus of control influence the psychological well-being of breastfeeding mothers. The findings of this study will enable us have a better understanding of mental health issues so that necessary interventions by practitioners and stakeholders are executed in the health centres. Participation in this study is highly voluntary. Please read or listen carefully to the information and feel free to ask questions if you do not understand something before agreeing to be part of this study.

**2. Description of Procedure:** If you participate in this study, you will be asked to:

- a. Participate in a brief selected information about your age, marital status, level of education, number of children, twin birth and employment status.
- b. This study consists of asking several questions about your breastfeeding self-efficacy, health locus of control and faith in breast milk as well as your psychological well-being.
- c. Your involvement in this research will last for about 20 minutes; thus, about 5 minutes for part one and 15 minutes for part two.

**3. Risks and Inconveniences:** be assured that this research does not contain any procedures that would cause pain or discomfort to you, however, you may experience some exhaustion. Hence, kindly let me know if you are tired so that we take some short break or continue at a later time.

**4. Benefits:** Participation would ensure that breastfeeding mothers understand the importance of exclusive breastfeeding and the need to have faith in breast milk since breast milk is holistic. The outcome of this study will also help breastfeeding mother to share their experiences among themselves which it will serve as learning opportunity for them.

**5. Confidentiality:** In order to ensure anonymity and confidentiality, you are not supposed to write your names, contact number or email address on the questionnaires that might reveal your identity.

**6. Voluntary Participation:** Your participation in this research is entirely voluntary; due to that, you may refuse to participate in this research even without explanation. You can withdraw from this study at any point in time without given any explanations or whatsoever. There would be no negative consequences in situations whereby you withdraw from this study.

**7. Other Considerations and Questions:** Kindly read through the consent form carefully before you sign and please feel free to ask any questions about anything that seems unclear to you.

**8. Authorization:** I have read or listened to the above information and I have decided that I will participate in the project described above. The researcher has explained the study to me and answered my questions. As a matter of fact, I know what will be asked of me and I also understand that the purpose of the study is to investigate breastfeeding self-efficacy, health locus of control and psychological health of breast feeding mothers. There will be no penalty or loss of rights in situations whereby I decide to withdraw from this study. As a result, I can decide to stop participating at any time even when I have started.

By signing, I agree to participate in this research and to have a copy of the consent form

Name: \_\_\_\_\_ ID#: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Email: \_\_\_\_\_

Participant's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

If you have further questions about this research project and about your rights as a research participant, please contact the Department of psychology – Legon or [marilyn303davis@gmail.com](mailto:marilyn303davis@gmail.com) (the researcher).

**APPENDIX IV**  
**QUESTIONNAIRE**  
**SECTION ONE**

Below are questionnaires for all those mothers who are seeking to take part in this study. It consist of five different questionnaires. I hope these questionnaires help me acquire information that will provide insight to policy makers and mental health professionals in the country. Each item below is a brief statement about the various dimensions of psychological factors as well as psychological health with which you may agree or disagree. You are also required to give a brief personal information about yourself.

**DEMOGRAPHICS**

1. Age.....

2. Marital Status

Single

Married

Divorced

3. Level of Education

No School

Below High School

High School

Diploma

Degree

Masters

Others.....

4. Number of children.....

5. Twin birth  Single birth

Employment Status

Employed

Unemployed

6. Type of Work

Self-Employed

Government Work

Private Work

7. Position in the workplace

Top Managers

Middle Manager

Core Operators

Other.....

**SECTION TWO**

Please indicate your degree of agreement (using a score ranging from 1-6) to the following sentences.

1 = Strongly agree                      2 = Slightly agree                      3 = Agree                      4 = Disagree

5 = Slightly Disagree                      6 = Strongly disagree

I am not afraid to voice my opinions, even when they are in oppositions to the opinions of most people	1	2	3	4	5	6
In general, I feel I am in charge of the situation in which I live in.	1	2	3	4	5	6
I am not interested in activities that will expand my horizons	1	2	3	4	5	6
Most people see me as loving and affectionate	1	2	3	4	5	6
I live life one day at a time and don't really think about the future	1	2	3	4	5	6
When I look at the story of my life, I am pleased with how things have turned out.	1	2	3	4	5	6
My decisions are not usually influenced by what everyone else is doing.	1	2	3	4	5	6
The demands of everyday life often get me down	1	2	3	4	5	6
I think it is important to have new experiences that challenge how you think about yourself and the world	1	2	3	4	5	6
Maintaining close relationship has been difficult and frustrating for me.	1	2	3	4	5	6
I have a sense of direction and purpose in life	1	2	3	4	5	6
In general, I feel confident and positive about myself	1	2	3	4	5	6
I tend to worry about what other people think of me	1	2	3	4	5	6
I do not fit very well with the people and the community around me.	1	2	3	4	5	6
When I think about it, I haven't really improved much as a person over the years.	1	2	3	4	5	6

I often feel lonely because I have few close friends with whom to share my concerns.	1	2	3	4	5	6
My daily activities often seem trivial and unimportant to me	1	2	3	4	5	6
I feel like many of the people I know have gotten more out of life than I have	1	2	3	4	5	6
I tend to be influence by people with strong opinions	1	2	3	4	5	6
I am quite good at managing the many responsibilities of my daily life.	1	2	3	4	5	6
I have the sense that I have developed a lot as a person over time.	1	2	3	4	5	6
I enjoy personal and mutual conversations with family members and friends.	1	2	3	4	5	6
I don't have a good sense of what it is I am trying to accomplish in life.	1	2	3	4	5	6
I like most aspect of my personality.	1	2	3	4	5	6
I have confidence in my opinions even if they are contrary to the general consensus.	1	2	3	4	5	6
I often feel overwhelmed by my responsibilities.	1	2	3	4	5	6
I do not enjoy been in new situations that require me to change my old familiar ways of doing things.	1	2	3	4	5	6
People would describe me as a giving person, willing to share my time with others.	1	2	3	4	5	6
I enjoy making plans for the future and working to make them a reality.	1	2	3	4	5	6
In many ways, I feel disappointed about my achievements in life	1	2	3	4	5	6
It's difficult for me to voice my opinions on controversial matters	1	2	3	4	5	6
I have difficulty arranging my life in a way that is satisfying to me.	1	2	3	4	5	6
For me, life has been a continuous process of learning, changing and growth.	1	2	3	4	5	6
I have not experienced many warm and trusting relationships with others.	1	2	3	4	5	6
Some people wander aimlessly through life, but I am not one of them.	1	2	3	4	5	6

My attitude about myself is probably not as positive as most people feel about themselves.	1	2	3	4	5	6
I judge myself by what I think is important, not by the values of what others think is important.	1	2	3	4	5	6
I have been able to build a home and a lifestyle for myself that is much to my liking.	1	2	3	4	5	6
I gave up trying to make big improvements or changes in my life a long time ago.	1	2	3	4	5	6
I know that I can trust my friends, and they know they can trust me.	1	2	3	4	5	6
I sometimes feel as if I've done all there is to do in life.	1	2	3	4	5	6
When I compare myself to friends and acquaintances, it makes me feel good about who I am.	1	2	3	4	5	6

### SECTION THREE

Please indicate your degree of agreement (using a score ranging from 1-6) to the following sentences using the following indicators.

1 = Not all confident

2 = rarely confident

3 = Sometimes confident

4 = Often confident

5 = Always confident

I can always determine that my baby is getting enough milk.	1	2	3	4	5
I can always successfully cope with breastfeeding like I have with other challenging tasks.	1	2	3	4	5
I can always breastfeed my baby without using formula as a supplement.	1	2	3	4	5
I can always ensure that my baby is properly fastened on for the whole feeding.	1	2	3	4	5
I can always manage the breastfeeding situation to my satisfaction.	1	2	3	4	5
I can always manage to breastfeed even if my baby is crying.	1	2	3	4	5
I can always keep wanting to breastfeed	1	2	3	4	5
I can always comfortably breastfeed with my family members present	1	2	3	4	5
I can always be satisfied with my breastfeeding experience	1	2	3	4	5

I can always deal with the fact that breastfeeding can be time consuming	1	2	3	4	5
I can always finish feeding my baby on one breast before switching to the other breast.	1	2	3	4	5
I can always continue to breastfeed my baby for every feeding	1	2	3	4	5
I can always manage to keep up with my baby's breastfeeding.	1	2	3	4	5
I can always tell when my baby is finished breastfeeding.	1	2	3	4	5

#### SECTION FOUR

Read the following statements and indicate your degree of agreement using the following scale.

**1 = strongly disagree    2 = disagree    3 = slightly disagree    4 = neutral**

**5 = slightly agree    6 = agree    7 = strongly agree**

My baby was satisfied with the amount of breast milk received.	1	2	3	4	5	6	7
My baby would be hungry if I did not use formula along with breastfeeding.	1	2	3	4	5	6	7
I believe that following breastfeeding with the bottle is how to find out if baby got enough.	1	2	3	4	5	6	7
I would describe my baby as being overfed after breastfeeding.	1	2	3	4	5	6	7
I feel I have to give formula after breastfeeding to satisfy my baby	1	2	3	4	5	6	7
In general, I believe my baby was satisfied with breastfeeding.	1	2	3	4	5	6	7
In general, I was satisfied with breastfeeding.	1	2	3	4	5	6	7
I became more relaxed as I sat and breastfed.	1	2	3	4	5	6	7
My baby appeared to enjoy breastfeeding.	1	2	3	4	5	6	7
In general, I feel successful at breastfeeding my baby.	1	2	3	4	5	6	7

**SECTION FIVE**

Instructions: Each item below is a belief statement about your medical condition with which you may agree or disagree. Beside each statement is a scale which ranges from strongly disagree (1) to strongly agree (6). For each item we would like you to circle the number that represents the extent to which you agree or disagree with that statement. The more you agree with a statement, the higher will be the number you circle. The more you disagree with a statement, the lower will be the number you circle. Please make sure that you answer **EVERY ITEM** and that you circle **ONLY ONE** number per item. This is a measure of your personal beliefs; obviously, there are no right or wrong answers.

**1 = strongly disagree****2 = moderately disagree****3 = slightly disagree****4 = slightly agree****5 = moderately agree****6 = strongly agree**

If I get sick, it is my own behavior which determines how soon I get well again.	1	2	3	4	5	6
I am in control of my health.	1	2	3	4	5	6
When I get sick, I am to blame.	1	2	3	4	5	6
The main thing which affects my health is what I myself do.	1	2	3	4	5	6
If I take care of myself, I can avoid illness.	1	2	3	4	5	6
If I take the right action I can stay healthy.	1	2	3	4	5	6
If I become sick, I have the power to make myself well again.	1	2	3	4	5	6
I am directly responsible for my health.	1	2	3	4	5	6
Whatever goes wrong with my health is my own fault.	1	2	3	4	5	6
My physical well-being depends on how well I take care of myself.	1	2	3	4	5	6
When I feel ill, I know it's because I have not been taken care of myself properly.	1	2	3	4	5	6
I can pretty much stay healthy by taking good care of myself.	1	2	3	4	5	6

**APPENDIX V**

**FOCUS GROUP DISCUSSION GUIDE**

**QUESTIONS**

1. What are some of the experiences you go through as a breastfeeding mother?
  - 1.1. What challenges do you face as breastfeeding mothers?
  - 1.2. How do you feel when you experience these challenges?
    - 1.2.1 What makes you unhappy about breastfeeding?
    - 1.2.2. How do you feel when you have to breastfeed in public?
    - 1.2.3. How do you feel when babies are not breastfeeding?
    - 1.2.4. How do you feel when you have to resume work and yet have to breastfeed?
  - 1.3. What do you think are the causes of these problems?
  - 1.4. How do you manage these problems/negative experiences?
  - 1.5. How do you cope with these challenges?
2. What positive experiences do breastfeeding mothers face?
  - 2.1. What positive experiences do you encounter as breastfeeding mothers?
  - 2.2. How do you feel when you encounter these positive experiences?
  - 2.3. What do you think are the causes of these positive experiences?
3. What specific emotions are experienced by breastfeeding mother who are able to practice exclusive breastfeeding for the recommended period?

**For those who have not reach 6 months in breastfeeding**

3.1. Do you think you will be able to practice exclusive breastfeeding for 6 months?

3.1.1. If yes, what do you think will help you to be able to exclusive breastfeed for 6 months?

If no, why not ?**For those who have passed the 6 months period**

3.2. Were you able to exclusively breastfeeding for 6 months?

3.2.1. How do you feel about being able to exclusively breastfeed for 6 months?

3.2.2. What helped you to exclusively breastfeed for 6 months?

## APPENDIX VI

## RELIABILITY OF STUDY VARIABLES

## BREAST FEEDING SELF-EFFICACY

Case Processing Summary

		N	%
Cases	Valid	130	100.0
	Excluded <sup>a</sup>	0	.0
	Total	130	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.878	14

## FAITH IN BREAST MILK

Case Processing Summary

		N	%
Cases	Valid	130	100.0
	Excluded <sup>a</sup>	0	.0
	Total	130	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.715	10

**INTERNAL HEALTH LOCUS OF CONTROL****Case Processing Summary**

		N	%
Cases	Valid	130	100.0
	Excluded <sup>a</sup>	0	.0
	Total	130	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	N of Items
.765	12

**PSYCHOLOGICAL WELLBEING****Case Processing Summary**

		N	%
Cases	Valid	130	100.0
	Excluded <sup>a</sup>	0	.0
	Total	130	100.0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

Cronbach's Alpha	N of Items
.788	44







## APPENDIX VII

## REGRESSION OUTPUTS

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.707 <sup>a</sup>	.501	.463	16.61230	.501	13.363	9	120	.000
2	.810 <sup>b</sup>	.656	.617	14.02746	.155	13.075	4	116	.000
3	.826 <sup>c</sup>	.683	.641	13.58053	.027	4.880	2	114	.009

a. Predictors: (Constant), Middle\_Manager, Degree, Diploma, Below\_High\_School, Unemployed, Self\_employed, High\_School, Government, Masters

b. Predictors: (Constant), Middle\_Manager, Degree, Diploma, Below\_High\_School, Unemployed, Self\_employed, High\_School, Government, Masters, Hill & Humenick Lactating Scale, Age Distribution, Internal\_Health\_Locus, Breastfeeding self-efficacy

c. Predictors: (Constant), Middle\_Manager, Degree, Diploma, Below\_High\_School, Unemployed, Self\_employed, High\_School, Government, Masters, Hill & Humenick Lactating Scale, Age Distribution, Internal\_Health\_Locus, Breastfeeding self-efficacy, HH\_BSE, Age\_ILC

ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33189.898	9	3687.766	13.363	.000 <sup>b</sup>
	Residual	33116.225	120	275.969		
	Total	66306.123	129			
2	Regression	43480.856	13	3344.681	16.998	.000 <sup>c</sup>
	Residual	22825.267	116	196.770		
	Total	66306.123	129			
3	Regression	45281.000	15	3018.733	16.368	.000 <sup>d</sup>
	Residual	21025.123	114	184.431		
	Total	66306.123	129			

a. Dependent Variable: TOTAL\_WELLBEING

b. Predictors: (Constant), Middle\_Manager, Degree, Diploma, Below\_High\_School, Unemployed, Self\_employed, High\_School, Government, Masters

c. Predictors: (Constant), Middle\_Manager, Degree, Diploma, Below\_High\_School, Unemployed, Self\_employed, High\_School, Government, Masters, Hill & Humenick Lactating Scale, Age Distribution, Internal\_Health\_Locus, Breastfeeding self-efficacy

d. Predictors: (Constant), Middle\_Manager, Degree, Diploma, Below\_High\_School, Unemployed, Self\_employed, High\_School, Government, Masters, Hill & Humenick Lactating Scale, Age Distribution, Internal\_Health\_Locus, Breastfeeding self-efficacy, HH\_BSE, Age\_ILC

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	175.423	7.075		24.794	.000
	Below_High_School	-27.806	9.528	-.296	-2.918	.004
	High_School	.650	5.920	.014	.110	.913
	Diploma	27.682	8.866	.277	3.122	.002
	Degree	-36.118	14.637	-.197	-2.468	.015
	Masters	25.240	7.741	.447	3.260	.001
	Unemployed	-13.469	4.163	-.262	-3.235	.002
	Self_employed	-5.911	4.244	-.131	-1.393	.166
	Government	-5.305	7.111	-.085	-.746	.457
	Middle_Manager	3.767	5.946	.063	.633	.528
	(Constant)	73.540	16.794		4.379	.000
2	Below_High_School	-16.567	8.474	-.176	-1.955	.053
	High_School	4.733	5.092	.103	.930	.355
	Diploma	22.603	7.694	.226	2.938	.004
	Degree	-23.185	14.363	-.126	-1.614	.109
	Masters	36.645	6.869	.649	5.335	.000
	Unemployed	-7.558	3.716	-.147	-2.034	.044
	Self_employed	-3.441	3.874	-.076	-.888	.376
	Government	-7.004	6.076	-.112	-1.153	.251
	Middle_Manager	-3.260	5.233	-.054	-.623	.535
	Internal_Health_Locus	.440	.164	.182	2.681	.008
	Breastfeeding self-efficacy	.733	.169	.317	4.347	.000
3	Hill & Humenick Lactating Scale	.138	.223	.039	.618	.538
	Age Distribution	.877	.316	.177	2.778	.006
	(Constant)	55.418	17.442		3.177	.002
	Below_High_School	-15.608	8.211	-.166	-1.901	.060
	High_School	7.071	4.992	.153	1.416	.159
	Diploma	22.486	7.453	.225	3.017	.003

Degree	-38.557	15.098	-.210	-2.554	.012
Masters	36.630	6.671	.649	5.491	.000
Unemployed	-5.772	3.663	-.112	-1.576	.118
Self-employed	-2.425	3.767	-.054	-.644	.521
Government	-4.235	5.977	-.068	-.709	.480
Middle_Manager	-4.364	5.080	-.072	-.859	.392
Internal_Health_Locus	.593	.167	.246	3.556	.001
Breastfeeding self-efficacy	.696	.164	.301	4.252	.000
Hill & Humenick Lactating Scale	.134	.220	.038	.612	.542
Age Distribution	1.259	.329	.254	3.825	.000
HH_BSE	-.292	1.338	-.012	-.218	.828
Age_ILC	3.414	1.095	.193	3.118	.002

a. Dependent Variable: TOTAL\_WELLBEING