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EXPERIENCES OF PATIENTS LIVING WITH LOW BACK PAIN IN THE ACCRA METROPOLIS

BY

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DECLARATION

I, Adeline Sarah Hesse-Barkah, declare that this thesis is my work. I also declare that apart from references that were taken from other writers and research, which has been appropriately acknowledged, this thesis is my original work created out of my study. This write up has never been submitted for the award of any degree to any institution either as part or whole.

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26 - 10 - 2020

Date

This thesis has been presented for examination with our endorsement as Supervisors.

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DEDICATION

This thesis is dedicated to my husband and children for their unflinching support and understanding during the period of my studies.

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LIST OF ABBREVIATION

CLBP	Chronic low back pain
GCNM	Ghana College of Nurses and Midwives
GHS	Ghana health service
HCP	Health care professionals
IASP	International Association for the Study of Pain
LBP	Low back pain
MOH	Ministry of health
NHIS	National Health Insurance Scheme
NMC	Nurses and Midwifery Council

ABSTRACT

Low back pain (LBP) is a phenomenon of global concern and affects the health and quality of life of individuals plagued with it. Despite its devasting effects, limited literature exists on low back pain in the Ghanaian context. This study aimed to explore the experiences of patients living with low back pain in the Accra Metropolis. The Biopsychosocial model of pain by Engel (1977) was applied as the main conceptual framework for the research, and the study employed a qualitative exploratory, descriptive design, and purposively selected 13 participants from the outpatient department of the Greater Accra Regional Hospital. One-to-one interview was conducted with a semi-structured interview guide and audiotaped. The interviews were transcribed verbatim and analysed concurrently using thematic content analysis. Seven (7) primary themes emerged. Findings showed that participants LBP originated from physical trauma and spiritual factors. Again, it was revealed from the study that participants had experienced their pain for several years. Furthermore, the quality of pain varied among participants, and they used various pain descriptors to describe their pain. The pain intensity also varied, and the pain was expressed verbally and non-verbally. Additionally, participant's pain was aggravated by physical activities, and they physically had difficulties in maintaining their daily routines. The adverse psychological and social effects of LBP, such as depression and isolation, were identified. Participants used Non-pharmacological and pharmacological method such as prayer and medications to cope with the pain. It was concluded that a multidimensional approach for pain management and adequate pain assessment is needed to manage LBP.

CHAPTER ONE

INTRODUCTION

This chapter presents the background of the study, problem statement, purpose, objectives, and research questions. The chapter also covers the significance of the study and the operational definitions.

1.1 Background of the study

Low back pain is a disorder that has obtained global attention as it affects many people. Low back pain (LBP) occurs around the dorsal region between or below the costal margin and above the inferior gluteal folds. Mostly, it is associated with pain that sometimes radiates to the lower extremities (Almeida & Kraychete 2017) and may result from an injury, disease, or stress on various structures of the body (Rizk, Nader, Karam, & Ayoub, 2012). The lumbar spine comprises five rigid bones attached with joints capsules, ligaments, tendons, and muscles. The robust nature of the spine protects the spinal cord and spinal nerve root. Moreover, the spine's extreme flexibility allows for movement in many directions or areas (Allegri et al., 2016). Most of the pains or symptoms experienced by people with LBP arise from the spine, the disc in-between the vertebrae, ligaments surrounding the spine as well as disc, spinal cord, nerve root, muscle and structures of the pelvis and abdomen (Nasution, Lubis, Amelia, & Hocin, 2018).

In as much as low back pain represents an alarming phenomenon, the exact aetiology of some cases of LBP is usually obscure. However, it is primarily understood to be multifactorial. LBP is either known as specific or non-specific low back pain. Non-specific LBP is defined as pain with unidentified origin or pathology, accounting for 90% of all presenting cases (Chou et al., 2018). On the other hand, specific LBP is defined as one that is related to a specific causal agent with a physiological mechanism (Almeida & Kraychete 2017; Gupta & Sharma, 2018). They further mentioned that disc prolapse or

herniated nucleus pulpous, infection, inflammation, tumour, osteoporosis, fracture, trauma, and vasculopathy are among LBP's causal agents and represent 15% of all back pain reported.

Low back pain may be classified as acute, sub-acute, and chronic, depending on its symptoms. The pain is described as acute when it remains incessant for less than four weeks, sub-acute when it continues for more than twelve weeks, and chronic when it is present with the sufferer for more than three months (Malik & Nelson, 2018). Again, the sensation of pain can differ significantly; for instance, the pain may be aching, burning, stabbing, tingling, sharp, dull, and well defined or elusive. The intensity may also range from mild to severe back pain (Rizk et al., 2012). Furthermore, individual/biological, psychosocial, and occupational factors are among the numerous factors contributing to LBP (Williams et al., 2015). Among the factors, occupational factors are said to be a significant contributing factor for low back pain. They account for 37% of all LBP described universally (Gupta & Sharma, 2018).

Low back pain has been a significant setback over the decades and remains one of the severe and topmost occurring musculoskeletal disorders confronting both the young and old. It represents the single most leading cause of disability across the world (Hartvigsen et al., 2018). Additionally, the global burden of disease study reports that in 2010, 2015, and 2016, LBP became the 4th leading cause of disability-adjusted life years (DALYs) as compared with other diseases among the world's population. It remains the sixth-highest disease burden (Hurwitz, Randhawa, Yu, Côté, & Haldeman, 2018). This evidence suggests that LBP plagues over half a billion individuals universally.

A study by Amundsen et al. (2018) showed that LBP's lifetime prevalence is between 60%-84% and carries a disability rate of 11%-12% in the world's population, with the

highest occurring in those within the working-age group. Evidence also suggests that LBP incidence in older people is comparable to the situation among the younger population (Sundell, Bergström, & Larsén, 2019). A United States study (Alanzi et al., 2017) posited that about 60%-80% of the masses suffered from LBP at certain times in their lives. It represents the most common causes of limited activity among the populace. They further found out that it was the leading cause of work-related disability and occurred in people less than 45years old. A similar study in the United Kingdom concluded that LBP afflicted the working-age group with the highest disability and the number of individuals suffering from LBP increased from 36.4%-44% in the past decade.

In Africa, studies (Awosan, Yikawe, Oche, & Oboirien, 2017) on LBP's epidemiology revealed a lifetime prevalence rate of 28%-74%. Tannor (2017) argued that this was one of the most typical reasons why 30%-40% of patients in Sub-Saharan Africa seek assistance from a rheumatologist. Low back pain is considered a phenomenon that transpires only among persons in high-income countries. However, several research studies in recent years have demonstrated that LBP incidence is almost the same as that in lower and middle-income countries (Igwesi-Chidobe, Kitchen, Sorinola, & Godfrey, 2017). They attributed this to the focus of health services on other areas combined with inadequate resources and other provisions to deal with the burden of LBP.

For instance, Bello, Quartey, and Lartey (2015), in a systemic review of LBP incidence in Nigeria, discovered a prevalence rate of 32.5%-73.5%, and all were related to the occupations of the individuals. Moreover, although such data is not readily available for reference in Ghana, a study undertaken among commercial and professional taxi drivers disclosed a prevalence rate of 34.3% and 58.8%, respectively (Wanamo, Abaya, & Aschalew, 2017). Low back pain negatively impacts the lives of persons afflicted by it (Chou et al., 2018) and prominent amid the reasons why patients seek treatment is pain,

which may be precipitated by physical activities such as bending, lifting, and prolonged sitting, among others (Arya, 2014; Kruger, Billson, Wood, & du Toit, 2015).

The International Association for the Study of Pain (IASP) defined pain as "an unpleasant sensory or emotional experience associated with actual or potential tissue damage or described in terms of such damage" (IASP, 1979, p. 249). Low back pain represents a cause of pain and disability and inflicts significant consequences on the quality of life of the sufferers (Harris, Gurden, Martindale, & Jeffries, 2017). Likewise, LBP negatively influences the individual's physical, social, and psychological aspects and thereby adds to an increase in cost for industries, government, and society in general (Bento et al., 2019). For instance, in the United Kingdom, LBP costs about 14 billion pounds yearly and was responsible for 7million visits to the physician annually (Rimpilainen, 2016).

Furthermore, LBP consumes ten billion pounds (£10) of health services offered in the United Kingdom, making it the third most expensive speciality following mental health and cardiac conditions (Potier, Tims, Kilbride, & Rantell, 2015). Low back pain may result in severe financial loss, loss of labour force, and several other physical and psychological difficulties due to its chronic nature (Tosunoz & Oztunc, 2017). The unsuccessful and extended period of treatment, direct and indirect cost culminating into critical social problems that consequently lead to disability and enormous economic burden across the world (Kameda & Tanimae, 2019). Moreover, the pain and disability that accompanies LBP affect the individual's sense of purpose and meaning in life, making them also rely on spirituality to adapt to their pain and injury (Siddall, McIndoe, Austin, & Wrigley, 2017). Therefore, the management of low back pain has focused on a multidisciplinary approach that includes all aspects of the person rather than just physical treatment in reducing pain and disability (Kamper et al., 2015).

1.2 Problem Statement

Low back pain carries a considerable healthcare cost. Despite increase spending on healthcare services, patient's outcomes have not improved as global disability related to low back pain continues to rise (Ferreira et al., 2018; Traeger, Buchbinder, Harris, & Maher, 2017). This healthcare cost adds to patients' financial insecurities and concerns, which often exacerbate the pain experience (Coole, Drummond, Watson, & Radford, 2010; De Souza & Oliver Frank, 2011; Walker, Sofaer, & Holloway, 2006). Additionally, the incidence and impact of low back pain continue to rise despite biomedical treatment and patients continue to experience pain, disability, and dissatisfaction, suggesting the need for a different management approach. (O'Sullivan, 2012; Snelgrove & Liossi, 2013; Walker et al., 2006).

More so, LBP places a substantial financial burden on patients, families, communities, and countries as a whole (Mitra, 2017). The expenditure on LBP represents a vast cost in some communities compared with cancer, coronary heart diseases, and AIDS put together (Baird Andrew & Sheffield, 2016). Furthermore, the quality of life of individuals and their ability to be productive during work activity is compromised as a result of LBP (Fan & Straube, 2016). Again, the disability that follows LBP makes individuals absent themselves from work, and further causes them to retire from work in their productive years (Sá, Dias, Souza, Lessa, & Baptista, 2015).

Estimates show that LBP afflicts 11.9% of people worldwide at a given time and affects both the young and old between 20-50 years with an incidence of 19.6% (Doualla et al., 2019). In Ghana, a women's health study showed that chronic LBP was persistent in 1328 women screened, accounting for 19.4%. Another survey of 100 male farmers in a rural community in the Brong Ahafo region acknowledged that low back pain was prevalent (76%) among the farmers (Oppong-Yeboah & May, 2014). Again, in Ghana, literature

search manually and electronically revealed very minimal data on how LBP impact the physical, psychological and social well-being of the individual which necessitated this study.

1.3 Objectives of the Study

The following objectives guided the study to:

1. Explore the pain characteristics of low back pain
2. Determine the pain aggravating factors of low back pain
3. Explore the physical pain experiences of patients with low back pain
4. Asses the psychological pain experiences of low back pain among patients
5. Examine the social pain experiences of low back pain among patients
6. Identify the pain coping methods of patients living with low back pain

1.4 Research Questions

The following research questions guided the study:

1. What are the pain characteristics of low back pain?
2. What is the pain exacerbating factors of low back pain?
3. What are the physical pain experiences of patients with low back pain?
4. What are the psychological pain experiences of patients with low back pain?
5. What are the social pain experiences of patients with low back pain?
6. What are the coping methods employed by patients with low back pain?

1.5 Purpose of the Study

The sought to explore and described the experiences of patients living with LBP at the Greater Accra Regional Hospital in Ghana and to gain a better understanding of how these experiences affect the management and the quality of patients with LBP.

1.6 Significance of the Study

Low back pain is mostly acknowledged as a significant health problem worldwide and thus obtaining an understanding of the experiences of living with pain among patients suffering from LBP, will be beneficial in many ways.

The study will add to the literature gab and the scholarly research database on low back pain experiences, assessment and multidimensional management. The study will again serve as a foundation for further research to fill the gaps identified, which will lead to modifying and developing guidelines specific to the management of low back pain in Ghana. Also, the study findings will serve as a valuable source of information for education on LBP and its preventive measures among the population.

Furthermore, recommendations from the study will inform Health institutions within the country, Non-governmental organisation (NGO's), and individual organisations to formulate and implement policies that will provide a work setting suitable to protect the spine and reduce the occurrence of low back pain in the population. The study will as well assist in alerting the hospital authorities in intensifying their education on proper body mechanics for patients with LBP and their staff.

1.7 Operational Definitions

Low back pain: Low back pain is a disorder that occurs around the dorsal region that lies between or below the costal margin and above the inferior gluteal folds and is mostly associated with or without pain radiating to the lower extremities.

Psychological experience: It is explained as any exposure that results in psychological or emotional instability for an individual or group.

Social experience: It refers to personal activities performed or expected to be performed by an individual such as home activities, family life, education, work, and social gathering.

Chronic low back pain: It is a pain that is chronic and usually lasts for more than six weeks

Coping: these are strategies that people often use in the presence of a stressful situation or trauma to assist in managing painful or difficult emotions.

Health care professionals: This is made up of a healthcare force group with different professions and occupations that provide some type of health services.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This section emphasises and subsequently pays detailed attention to several already published research work concerning chronic pain experience among patients living with low back pain and the objectives of the study. It also presents an overview of the selected conceptual framework and the justification for utilising the Biopsychosocial model as applied to low back pain. Several databases such as "PUMED," "SCOPUS," "Science Direct," "MEDLINE," "CINHAL," and "Cochrane Library" from the University of Ghana online catalogue was used to search for relevant literature. Google Scholar was also used as one of the search engines to assist in retrieving relevant articles. Keywords used included: "low back pain", "chronic low back", "conceptual framework," "physical pain experience", "psychological pain experience", "social pain experience" and "coping methods".

2.1 Theoretical Model Utilised In This Study

2.1.1 City of Hope Quality of Life Model by Ferrell and colleagues (1989)

In literature, several conceptual models exist on the assessment and management of low back and other chronic pain conditions. One such model is the City of Hope Quality of Life model applied to caregiver communication burden. Although this model encompasses the physical, social, psychological, and spiritual dimensions, its domains, however, relate more specifically to difficulties associated with caregiver communication burden which defeats the purpose of this study that aims to explore the experiences of patients living with low back pain. Hence this model could not be utilised in the current study.

2.1.2 Biopsychosocial – Spiritual Model by Siddall et al., (2015)

Another model considered was Biopsychosocial-Spiritual Model. The biopsychosocial-spiritual model views chronic pain experienced in the context of physical, psychological, social and spiritual dimensions. However, many researchers have not used it to explore the experience of low back pain among patients since the introduction of the spiritual component thus the model was considered unsuitable for the study.

2.1.3 Biopsychosocial Model of Pain

The Biopsychosocial model was found appropriate for this study since the study explores the experiences of patients living with low back pain. The Biopsychosocial model was mainly developed by Engel (1977) to treat chronic pain conditions which include low back pain is part. The BPS model's approach jointly describes pain and disability as a multidimensional dynamic communication among the physiological, psychological, and social factors that mutually impact each other ensuing in chronic pain and intricate syndrome (Gatchel, McGeary, McGeary, & Lippe, 2014; Jensen & Turk, 2014).

This model emerged as an alternative to the traditional biomedical model, which dominated medical training and practice and looked at a more holistic way of treating or managing individuals with chronic pain conditions. Engel (1977) argues that the biomedical model does not allow room within its framework for the social, psychological, and behavioural dimensions of disease. Also, the idea of the biopsychosocial model incorporates the "whole person." It views both the mind and body as interrelated entity, identifying the biological, psychological, and social constituent of pain and illness. The biopsychosocial model emphasises how one lives with and responds to either symptoms or disease (Gatchel, Peng, Peters, Fuchs, & Turk, 2007; Turk & Okifuji, 2002). Engel suggests that the model serves as a blueprint for research, a structure for teaching, and a strategy for action in healthcare (Engel, 1977).

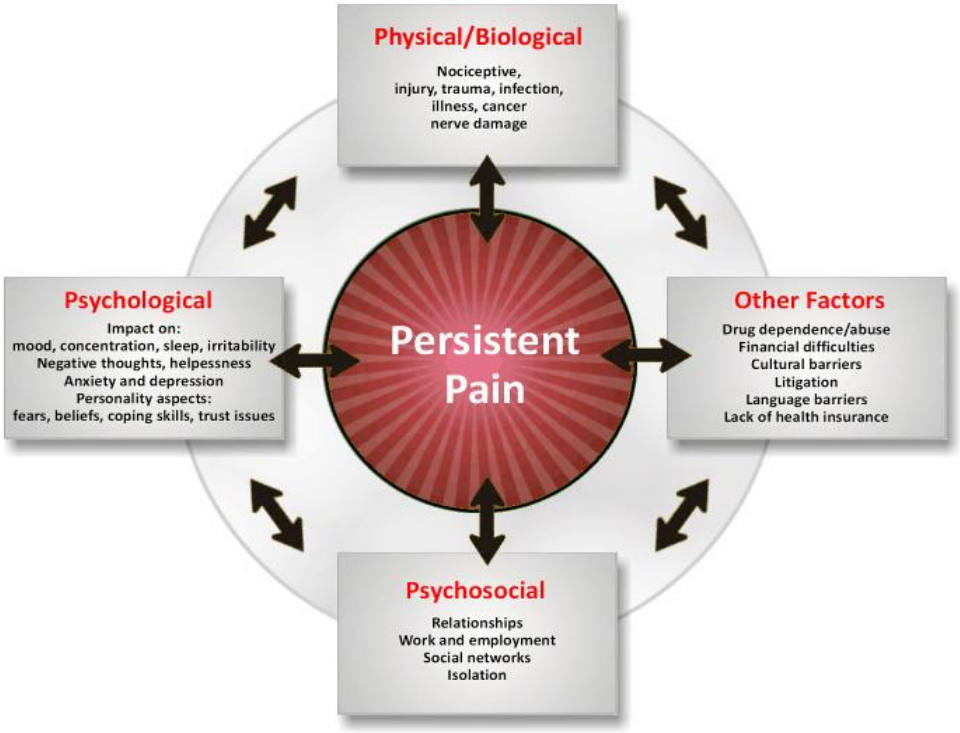

Figure 2. 1: Biopsychosocial of Model Pain by Engel 1977

The model's biological domain tends to look at how biological factors such as genetics, infections, physical trauma, injury, illness, cancer, and nerve damage influence health and illness (Engel, 1977). This dimension of the model looks more at the individual's biological systems and how it contributes to illness. The psychological component of the biopsychosocial model deals with potential factors that may impact or contribute to developing a health problem. These include mood, lack of concentration, irritability, sleep, negative thoughts, helplessness, anxiety, depression, fear, beliefs, and coping. Again, the BPS model's psychological aspect implies that the mental state of a person is capable of contributing to the occurrence of an illness. Therefore, in assessing an individual's health, health workers must pay particular attention to these psychological factors that can affect the patient's illness experience.

The biopsychosocial model's social aspect describes how different social factors such as relationship, work, employment, social network, and isolation impact pain experience. This part of the model also pays attention to how the individual's environment and the broader community influence the illness experience. These social factors are some of the vital determinants in LBP, and its impact on the pain experience hence has received greater consideration in LBP management (Henschke et al., 2016).

2.2 Justification for Utilising the Biopsychosocial Model of Pain

Even though the BPS model is widely recognised and accepted as one that can lead to humanistic and patient-oriented care, several criticisms and arguments surround its rise (Smith, Fortin, Dwamena, & Frankel, 2013). Critics of the BPS model says that the model does not have a clear definition, and it is challenging to verify. Critics also mention that the model's concepts are antiquated and without a clear operational definition (Van Oudenhove & Cuypers, 2014; White, 2005). McLaren (1998) put forward that the BPS model cannot be referred to as a 'model' because it does not fit into the concept of 'model'. Thus cannot be understood as a formal working representation of an idea or theory that can be empirically tested and holds some predictive or explanatory power.

Ghaemi (2010) asserted that the model is too broad, making it difficult for its efficient inclusions in medical practice. Other critics supported this stance by affirming that the generic scope of the biopsychosocial model offers little guidance to health professionals and brings up the problem of how to use the model without any accompanying criteria to locate selectively and as well specify important patient information (Freudenreich, Kontos, & Querques, 2010; Schwartz & Wiggins, 1985). Some other critics also noted that the biopsychosocial model might be too restricting. It fails to capture the importance of quality of life, such as spirituality and religion, which has culminated in the development of the biopsychosocial spiritual model of chronic pain and applied to patients with sickle

cell disease (Taylor, Stotts, Humphreys, Treadwell, & Miaskowski, 2013). Kontos (2011) further criticised the biopsychosocial model as being an unjustified attack on biomedicine. Hence not being a universally useful model. Some have also suggested that its use may harm patient (Geraghty & Esmail, 2016).

In the face of these criticisms, however, the biopsychosocial of pain has immensely contributed to shaping our understanding of individual variations in pain experience and has guided the development of successful and effective psychosocial and behavioural interventions to reduce the suffering and ramification associated with persistent pain (Gatchel et al., 2014; Jensen & Turk, 2014; Williams, 2013). For example, Jaini and Lee (2015) carried out a systematic review of peer-reviewed literature on the BPS model and medical education since the 1970s utilising numerous databases. The review aimed to discover the recent trend of research on the usage of the biopsychosocial model in medical education and studied curricula that employed the utilisation of the BPS model in the United States. Articles found were those that deliberated on the BPS model. Those that integrated the model in their curricula and additional methods besides the BPS model were extracted to educate medical students about additional external health factors.

The researchers saw an increasing trend in research on the BPS model in education since the 1970s, and literature in the area was most visible since 2000. Additionally, the study also integrated the psychosocial, behavioural, and social science components. However, the review indicated that only 5 medical schools employed the use of the BPS model in their curricula. The study concluded that, when employed in training medical students, the biopsychosocial model may end up producing healthcare providers who are competent enough to meet the challenges of increasing chronic illnesses that come as a result of these factors (Jaini & Lee, 2015).

Miller Smedema, Thompson, Sharp, and Friefeld (2016) carried out a study on the biopsychosocial model to evaluate how biological, psychological, and social variables enhance life satisfaction. The researchers sampled 247 patients with spinal cord injury who completed an online survey made of instruments measuring various biological, psychological, and social variables and perceived life satisfaction. They used structural equation modelling to evaluate the hypothesised positive BPS model of life satisfaction and re-specified the model.

Analysing the re-specified model, they found out that it adequately fitted with the data. The BPS model showed a 58% variance in life satisfaction. Though the model is deficient in the spiritual component, Sulmasy (2002) emphasised that Religion and Spirituality play an essential role in health and illness, which informed the addition of the Spiritual component to the BPS model. In this regard, the researcher found the model more useful because it contains the most appropriate constructs that will help amplify the experiences of patients living with low back pain.

2.3 Pain Characteristics

This theme explains the characteristic of pain as experienced by individuals living with low back pain. Some clinical features that characterised the pain experience include; the origin, location, duration, intensity, and quality, which are assessed based on subjectivity. Also, low back pain has many causes and risks factors associated with it, making the assessment and diagnosis process quite a complex one. As such, understanding of these factors and how to embark on a comprehensive assessment to be able to identify the source of pain is essential for providing patients with lower back pain the most appropriate management and referral that will be beneficial to the patient (Amirdelfan, McRoberts, & Deer, 2014; Swieboda, Filip, Prystupa, & Drozd, 2013). A small number of lower back cases result from physical causes or sources such as trauma to the back due to motor

vehicle accidents or falls and contact sport among patients (Cohen, Chen, & Neufeld, 2013; Ehrlich, 2003; Steffens et al., 2015).

Again, one of the most common origin/causes of LBP is a strain or pull on the lumbar spine, tendons, ligaments, and other connective tissues. The injury may occur due to improper use, overuse, or trauma (Sailaja, 2015; Steffens et al., 2015). Similarly, Heavy lifting, moderate-vigorous physical activity, performing a task in an awkward posture, and various other activities result in increased tension. This tension may as well lead to muscle fibre or tendon disruption, and overuse or repetitive motion of specific muscles may cause pain and spasms (Steffens et al., 2015; Tavee & Levin, 2017).

According to Hemming, Sheeran, Van Deursen, and Sparkes (2018), sporting activities are also involved in LBP's causation. The occurrence rate is reported to range between 1% to 30% depending on the specific sport engaged in (Graw & Wiesel, 2008). Other findings also indicated that the experience of low back pain could reduce athletic performance (Noormohammadpour et al., 2016). Moreover, many athletes who develop low back pain are likely to run into significant disability when they finally retire from sports (Hoskins, 2012; Maselli et al., 2015). Some studies have indicated that too little or too much activity can affect the health of the spine. However, much knowledge does not exist on the relationship between sports and the health of the spine (Heneweer, Staes, Aufdemkampe, van Rijn, & Vanhees, 2011; Sato et al., 2011). Further studies are needed to investigate the involvement of sporting activities in the causation of low back pain to prevent its prevalence among the general population.

Furthermore, a study on occupational low back pain and the sitting position among 38 employees of a university, discovered that most participants worked several hours without a break (Barros, Ângelo, & Uchôa, 2011). Similarly, an epidemiological study with 650

bank employees with musculoskeletal conditions showed that 53.2% worked without a break. Except for a lunch break, almost 70% of the workers had pain at least once a year (Brandao, Horta, & Tomasi, 2005). Likewise, a cross-sectional survey among 100 professionals between the ages of 30-60 years who have occupations predominately requiring sitting or standing using a self-administered questionnaire, indicated that fifty of the participants had a sitting posture occupation and another 50 also had a standing posture occupation. The results showed that 76% of the individual with sitting occupation and 70% of individuals with standing occupation had low back pain. 63.15% of those with sitting occupation and 60% of those with standing occupation felt that improper ergonomics might be one of the cause of their low back pain (Pillai & Haral, 2018).

A related study was carried out to investigate low back pain and its relationship with sitting behaviour among 70 sedentary office workers from a professional call-centre company in Germany. The results showed that 75% of the workers had some level of either chronic or acute back pain and those with chronic LBP had more static sitting behaviour than those without pains and a greater association was found between sitting behaviour and chronic LBP than for acute pain (Bontrup et al., 2019). Sitting for a prolonged period is also one of the factors causing musculoskeletal pain mainly low back pain in university students (Issa, Seleem, Bakheit, Baky, & Alotaibi, 2016; Nordin, Singh, & Kanglun, 2014).

For instance, a cross-sectional descriptive study investigated the burden of low back pain among 90 undergraduate physiotherapist students in Zimbabwe. The report states that more than half (56.7%) of the students experienced at least one episode of non-specific low back pain (Chiwaridzo, Chamarime, & Dambi, 2018). Similarly, a quantitative study carried out among university students revealed that prolong sitting more than 3 hours a day led to low back pain in 76% of the students (Anggiat, Hon, & Baait, 2018). However,

more studies are required to provide a clear understanding of the association between LBP and prolong sitting and standing.

The location of pain could be a deep ache that is poorly localised and reported in some patients to be mainly at the centre of the lower back (Tavee & Levin, 2017). In other patients, the pain will typically be localised to the midline of the spine or localised at the paraspinal region with or without radiation to the groin or thigh (DePalma, Ketchum, Trussell, Saullo, & Slipman, 2011). A 2014 National Health Survey report in America, showed that the most predominant site of pain reported by patients was the lower back which exceeded joint condition, headache/migraines, neck, and facial or jaw pain (Nahin, 2015).

Low back pain in terms of distribution is classified as axial pain which means pain that remains localised to the low back or maybe radicular, that is pain radiating to the lower extremities. In patients with neurogenic claudication, pain frequently radiating into the buttocks, thigh and legs in the distribution of one or more dermatomes (Kobayashi, 2014). The distribution is particularly important for clinical practice because the distribution of pain often shows an effect of frequently occurring diseases processes involving the spine (DePalma et al., 2011).

Furthermore, according to Świeboda, Filip, Prystupa, and Drozd (2013), finding the location of pain permits the determination of the possible cause of pain and informs future treatment (Swift, 2015). Another measurable characteristic of pain is the duration which permits the differentiation between acute and chronic pain. After suffering acute back pain, relapses are likely to occur, and pain subsequently becomes a chronic pain (Świeboda et al., 2013). Establishing the duration of either acute or chronic pain helps provide a framework by which additional evaluation and treatment may be determined

(Tavee & Levin, 2017). For example, acute LBP is defined as either less than 4- 6 weeks or from 6 weeks to 12 weeks (Casazza, 2012; Patrick, Emanski, & Knaub, 2014). Persistent or inconsistent pain lasting longer than three months is termed as chronic low back pain (Last & Hulbert, 2010; Patrick et al., 2014; Steingrímsdóttir, Landmark, Macfarlane, & Nielsen, 2017; Vialle, 2016).

Furthermore, pain intensity describes the amount of pain a patient is in pain (Von Korff, Jensen, & Karoly, 2002). The assessment of pain intensity is vital in determining or evaluating the effectiveness of treatment and also identifying the underlying cause of a condition (Breivik et al., 2008; Swift, 2015). Pain is an individual experience that no other person can perceive or feel on another person's behalf even if a set of individuals receives the same stimuli, rating the pain reported by the patients are seen to be greatly at variance (Chou & Shekelle, 2010; WHO, 2003).

Also, according to J Gregory and Richardson (2014), the intensity of pain is revealed to be the most common and frequently used one-dimensional self-report assessment in clinical practice. As such, in evaluating the intensity/severity, visual analogue scales are utilised in comparing pain with the severest pain which the patient had ever suffered or tolerated (Świeboda et al., 2013). In managing patients with chronic low back pain, pain intensity is often measured on the 11-point Pain Intensity Numerical Rating Scale (PI-NRS). The scale ranges from no pain indicating 0 to worst possible pain indicating 10 (Chauny, Paquet, Lavigne, Marquis, & Daoust, 2016; Parker et al., 2012).

According to Nasution et al. (2018), pain intensity in patients with chronic low back is associated with their quality of life. The quality of life relies on their physical function, limitations they have due to physical problems, limitations due to emotional problems, vitality, social functioning, the feeling of pain and general health. There is the recognition

that pain may be relatively easy to be professed by most patients and the varied methods of measuring the pain intensity have proven to be positively correlated (Von Korff et al., 2002).

The painful episodes in LBP are often ongoing or ever-present in varying severity/intensity and occur suddenly without any warning (MacNeela, Doyle, O'Gorman, Ruane, & McGuire, 2015). For example, De Souz and Frank (2000), identified that patients with chronic low back pain communicated the intensity or severity of their pain by using descriptors such as very, very bad, very severe, terrible and awful. The study further noted that patients describe their pain as worsening, and some also utilised time dimensions such as constant pain, continuous, an everyday thing, always there and never wholly gets better to explain their pain. Similar studies also established that the intensity of pain among individuals with low back pain is described as severe (Egwu & Olakunle, 2012; Nunn, Hayden, & Magee, 2017).

Pain intensity/severity has also been noted to be severe or increased at night in the patient suffering from pain (Aziato, Ohene, Norman, & Antwi, 2016; Swift, 2015). The intensity of pain among patients with chronic pain, including those with low back pain leads to a rise in their blood pressure. Epidemiological findings have revealed that hypertension is prevalent among chronic pain population (Olsen et al., 2013). The intensity of chronic pain is a statistically significant predictor of hypertensive status. Thus there is the possibility that chronic pain may be associated with increased risk of hypertension regardless of demographic factors such as age, race, sex and family history (Bruehl, Chung, Jirjis, & Biridepalli, 2005; Saccò et al., 2013). Also, lower back pain may co-exist with migraine or tension headaches (Swift, 2015; Yoon et al., 2013). A previous systemic review revealed that there is an association between headaches and chronic low back pain among patients (Vivekanantham et al., 2019).

Pain is described as mainly a personal experience and as such, very difficult to tell or explain to others. It depends substantially on communication (Strong et al., 2009). Numerous researches have shown that patients use certain words when describing or talking about their chronic pain and these constitute pain quality descriptors that are frequently used to describe the pain experience (Dudgeon et al., 2005; Jensen, Johnson, Gertz, Galer, & Gammaitoni, 2013). Pain quality is, therefore, an attribute that is very valuable when evaluating the origin of pain (Świeboda et al., 2013). Low back pain is considered mainly as a mixture of both nociceptive and neuropathic pain (Baron et al., 2016; Bouhassira, Lantéri-Minet, Attal, Laurent, & Touboul, 2008).

Nociceptive pain is defined as pain arising from an identifiable lesion causing damage and accompanied by stimulation of nociceptors in somatic or visceral structures (Steeds, 2016). This type of pain is described as sharp, pricking, shock-like, dull, aching or burning depending on the responsible stimulus (Prescott & Ratté, 2017). Neuropathic pain, on the other hand, is an abnormal sensation initiated or caused by a primary lesion or dysfunction of the nervous system and can occur as a result of dysfunction in the motor, sensory or autonomic nervous system. This kind of pain may be continuous and often described as burning, tingling, shooting, stabbing or numb sensation (Steeds, 2016).

A cross-sectional study that described the characteristics of low back pain and neuropathic and non-neuropathic pain component suggested that participants used quality descriptors such as throbbing, burning, jumping and aching to describe their LBP (Tavares, Franzoi, & Araújo, 2010). Additionally, De Souz and Frank (2000), mentioned that participants with chronic low back pain often used pain descriptors such as aching, sharp, and shooting. Furthermore, other similar studies (Lin, Kupper, Gammaitoni, Galer, & Jensen, 2011; Victor et al., 2008), identified that the most frequent words used by

patients to describe their pain quality included; burning, sharp, dull, aching numb, and radiating.

Aziato and Adejumo (2015b), also concluded in their study of post-operative pain experience that, patients also used descriptors such as burning and pulling. Additionally, a qualitative phenomenology (Stensland & Sanders, 2018) to understand the older adults lived experience with CLBP reported that participants described the pain in their body using descriptions such as being stuck with needles in their back and stabbed with a sword among others. Participants also noted that the pain was never-ending, always present, radiated into the buttock, legs, sometimes feet, and does not allow one to do something. Also, O'Brien and Breivik (2012), also reported similar pain descriptors such as aching, stabbing, burning, piercing, numbing, among others to describe the quality of their pain.

2.4 Pain Expression

Pain expression according to (Prkachin, 2009) can be defined as observable behaviours, in any modality that goes together with and is specific to pain and appears to be adapted to function in an interpersonal context. According to principle, the definition covers other behaviours such as verbalisations. Pain is fundamentally a subjective experience that exists only within the individual that is feeling it, and only the one who suffers it can communicate or tell outside observers such as health professional or close relations (Aziato & Adejumo, 2015b; Visser & Davies, 2009). This subjective nature of the pain experience has been reiterated severally by researchers. The researchers gave meaning to the definition provided by the International Association for the Study of Pain (IASP) as "an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage" (Aziato & Adejumo, 2015a; Neil & Macrae, 2009; Treede, 2018).

This definition by the IASP is mostly quoted or referred to in the majority of pain studies (Aydede, 2019; Berry et al., 2001; Kumar & Elavarasi, 2016; Rajagopal, 2006). The subjective nature of pain identified by the IASP definition demonstrated that it is crucial for the one suffering the pain to accurately communicate his or her pain experience (Briggs, 2010). Communicating the pain allows outsiders to make interpretations about the pain (Martel, Thibault, & Sullivan, 2011), thus helping to recognise the pain that requires immediate attention or care (Swann, 2010).

The pain phenomenon has both sensory and affective characteristics. Pain assessment brings to light the subjectivity of the pain experienced from the viewpoint of the one suffering it (Araujo & Romero, 2015; Vallath, Salins, & Kumar, 2013). This subjectivity of pain goes a long way to emphasise that individual who suffers pain must properly communicate their pain through expression which will result in adequate and appropriate management of pain (Briggs, 2010; Julie Gregory, 2019; Rowbotham, Holler, Lloyd, & Wearden, 2014). Pain is expressed through numerous ways such as verbal (Speech), nonverbal (bodily movement), or even a mixture of the two can occur (Rowbotham, Holler, et al., 2014).

Verbal pain report forms the foundation for pain assessment, notwithstanding there is also the nonverbal medium of pain communication which are mostly behavioural and observed in people who cannot verbally communicate their pain (Treede, 2018). According to Julie Gregory (2019), when individuals are unable to talk about the pain experienced, observing their behaviour becomes an important basis of pain assessment. Hence observing patients behaviour has become part of the observational pain assessment tool to ensure consistent assessment of pain. Patients self-report of the presence of pain is regarded as one of the most reliable and precise methods of assessing pain presence and intensity in clinical practice and research (Herr, 2011; Horgas, 2017).

As indicated by (Booker & Haedtke, 2016; Feldt, 2000), acute pain can be verbalised through crying, shouting, and screaming for help, moaning, reporting the presence of pain, and complaining among others. Also, behaviours utilised to express pain non-verbally included the use of gestures, facial expressions, frowning, clinching on teeth, restlessness, rubbing or massaging pain site, and movement restriction (Booker & Haedtke, 2016; Rowbotham, Wardy, Lloyd, Wearden, & Holler, 2014; Stanley & Chinwe, 2016).

Furthermore, a Ghanaian Ethnographic study of post-operative pain experience concluded that patients communicated or expressed their pain by shouting, crying, grimacing and groaning (Aziato & Adejumo, 2015b). Perceiving and expressing pain also vary according to the patient's social position, and the situation in life (Loduca et al., 2014; Modić Stanke & Ivanec, 2010). Since pain possesses psychological, social, spiritual and physical dimension, it is significantly influenced by cultural factors that make people of different cultures respond in different ways when in pain (Narayan, 2010; Ogala-Echejoh & Schofield, 2010).

2.5 Pain Aggravating Factors

Factors aggravating or relieving low back pain are vital indicators during history taking, and therefore, history taking should involve aggravating and relieving factors (Patel & Kinsella, 2017). Identifying or determining the aggravating and relieving positions during history taking helps the direction of investigations to focused on mechanical disorders (Borenstein & Calin, 2012). This aspect of the pain assessment also assists in finding the causes and providing target and effective treatment (Swift, 2015). An observational, cross-sectional study evaluated differences in spinal kinematics of subgroups of non-specific chronic low back pain patients during functional activities. The study concluded that postures such as excessive curvature of the thoracolumbar spine aggravated low back pain in some subgroups of patients with low back pain (Hemming et al., 2018).

In some patient with low back, the main exacerbating or aggravating factors may be associated with movement and posture behaviours that indicate the source is mechanical (Konstantinou, Hider, Vogel, Beardmore, & Somerville, 2012; O'Sullivan, 2005). According to Ehrlich (2003), certain activities including jogging, running, heavy lifting, and prolonged sitting, especially in cars, trucks as well as poorly designed chairs are capable of aggravating low back pain. Patients with neuropathic low back pain may as well report that pain is often aggravated by forward bending, coughing, sneezing, or prolonged sitting, which usually improves when in the recumbent position. Also, patients with neurogenic claudication usually report aggravating radicular pain when standing and walking. The pain is relieved when sitting (Suri, Rainville, Kalichman, & Katz, 2010).

A recent qualitative descriptive study by Setchell, Costa, Ferreira, and Hodges (2019) which sought to determine from participants perspective what decreases their low back pain, found out that they avoided aggravating activities such as housework, sex, prolonged sitting, and walking. Sleeping posture has also been identified as a factor that aggravates spinal symptom. Sleep is regarded as very vital for the physical and mental recovery of humans, notwithstanding some individual with spinal symptoms wake up with aggravation or exacerbation of their spinal symptoms (Desouzart, Filgueiras, Melo, & Matos, 2014; Gordon, Grimmer, & Trott, 2007). Furthermore, a study by Lowery et al. (2013) indicated that patients report aggravating factors such as climbing stairs, walking, lifting, overextending, standing, sleeping and stress, among others.

The findings from a study that classified patients with low back pain and looked at aggravating and relieving factors noted that physical stress also exacerbated pain intensity (Fujiwara, Nohara, Kobayashi, & Saiki, 2010). Likewise, a study in Iranian women with low back pain indicated that the women believed that working hard in the house without support from close relations produced stress in them and subsequently worsened their

lower back pain (Tavafian, Gregory, & Montazeri, 2008). Sporting activities are also reported to aggravate pain, and once experienced, the individual remains vulnerable to future pain (Hestbaek, Leboeuf-Yde, Kyvik, & Manniche, 2006).

A report from a study on musculoskeletal pain among older people in India using a mixed-method found that doing strenuous and more physical activity, long walks and indulgence in sexual activities exacerbates chronic pain (Kirubakaran & Dongre, 2019). The results further showed that the pain is relieved by taking medication. LBP may be capable of negatively influencing sexual activity in the sense that it can physically provoke uneasiness and aggravate pain in the process of intercourse (Akbaş et al., 2010; Maigne & Chatellier, 2001). Moreover, pain exacerbation in a patient with low back pain during sexual intercourse has been frequently reported. For instance, a study that described spinal movement and posture characteristics in both males and females during sexual intercourse found out that coital movement and positions exacerbates or worsens low back pain (Sidorkewicz & McGill, 2014, 2015).

Similarly, Maigne and Chatellier (2001), found out that in both males and females, the position that aggravated the most pain is the prone position. For females, the deficiency in their sexual life was associated with aggravating pain during sexual intercourse. A study conducted on sex-life and the impact of an operative intervention on sex-life related pain in degenerative spine condition indicated that a section of the patients reported having a certain level of pain accompanying their sexual life (Horst et al., 2016).

Ambler, Williams, Hill, Gunary, and Cratchley (2001), conducted a study to describe the specific physical and psychological challenges associated with sexual activity in a patient with chronic pain. The study found out that among the several sexual difficulties, aggravating pain during sexual intercourse was also of concern. Setchell et al. (2019),

examined the perspectives of 130 patients regarding what decreases their low back pain. The results showed that the majority of the participants experienced pain daily along with frequent variability and 66% of them used heat/cold, 64.1% used medications, 60% used rest, 55.7% used activity/exercise, 38.1% used stretching exercises and 34.3% reduced aggravating factors.

2.6 Physical Pain Experience

Pain is manifested as a sign of physical or emotional damage to tissue and motivates strongly how a person behaves (Finan, Goodin, & Smith, 2013). Furthermore, the hallmark of low back pain, which sends patients to the emergency department of hospitals or physician's office is pain (Arya, 2014). Pain interferes with individuals ability to perform daily activities and disturbs every aspect of their lives, leading to an array of frustrations borne from the fact that pain is not visible, accompanied by a limitation in diagnosis and treatment (Dow, Roche, & Ziebland, 2012). It is evident that whether the pain experience is acute, chronic or sporadic as observed in patients with LBP, it can lead to functional disability, affects the quality of life and daily activities of living (Panda, Vyas, Dsouza, & Boyanagari, 2019).

The intensity of pain and how long its last places restrictions on the patient's physical performance. The pain intensity diminishes physical activity which in turn causes disability and subsequently affects other areas of life (Dueñas, Ojeda, Salazar, Mico, & Failde, 2016). The study further argued that persons with chronic pain suffer limitations in their ability to carry out intense physical exercise, walk, perform house chores and take part in social activities. Stamm, Pieber, Crevenna, and Dorner (2016) carried out a population-based cross-sectional study to explore the limitations in activities of daily living in 3097 older persons in Australia with musculoskeletal conditions, including LBP. The results showed that 43.9% of the participants had problems doing heavy housework,

39.3% had problems with bending or kneeling, 23.1% had problems climbing stairs up and down without walking aids, and 22.8 % had problems walking 500 m without walking aids.

Similarly, a study among 375 shipyard workers identified difficulties experienced as a result of musculoskeletal or orthopaedic conditions. The study revealed that participants had difficulty with activities of daily living such as maintaining a sitting position for extended periods (23.1%), lifting heavy loads (17.3%), working in a standing posture for extended periods (12.0%), going up or downstairs (10.1%), standing, (5.9%), walking 1km or longer (5.1), and turning over whiles sleeping (2.4%). The results further showed that pain in the back occasionally hampered work in 40.4% of the participants and continuously in 6.1% of the subjects (Watanabe, Takahashi, Takeba, & Miura, 2018).

A similar Thai cohort study of 42,785 participants revealed that 30% of the cohort participants reported LBP in which 6% of the cohort had difficulties in bending, 3.1% had difficulties in walking a 100m, 2.2 had problems climbing stairs, and other 2.9 had difficulties when dressing (Yiengprugsawan et al., 2017). A study among 32 Aboriginal men and women with CLBP in Australia indicated that participants had problems with household chores, getting out of bed, lifting and especially the women had problems bending, the men, if they did any domestic work, had problems with raking, sweeping, and keeping the yard clean. Again, some of the men could not work because of their back pain leading to financial loss, and they had challenges with participation in sports and travelling by car was also a problem for participants due to the hours of sitting (Lin et al., 2012).

A comprehensive prospective study analysed and evaluated the personal and psychological cost of chronic low back among 30 subjects. The study revealed that one participant stated difficulty getting out of bed, had feelings of guilt due to the inability to

contribute to household activities or family business and was unable to pursue hobbies such as gardening. Almost 50% (10 out 21) of the participants who had children stated that their inability to sit, run, stand or jump long enough made them unable to play with children or grandchildren to entertain them due to the back pain. They also reported the inability to pick them up or care for them properly due to their back pain (Mathew, Singh, Garis, & Diwan, 2013). Evidence from (Stensland & Sanders, 2018) has proven that the fear of exacerbating pain in patients with low back pain made them more choosy about places they would want to go. Patients will usually go in advance to ensure that the physical features of the place would not spark or exacerbate their pain or increase the intensity. For example, they will check handicap accessibility and some staircases, among others.

Imbalances in the spine necessitate a high amount of energy to maintain balance which causes people to become fatigued and have subsequent pain (Rajnics, Templier, Skalli, Lavaste, & Illés, 2002; Seidel et al., 2011). Sturgeon, Darnall, Kao, and Mackey (2015) in their study concluded that fatigue is a multifaceted construct that has a relationship with both physical and psychological factors which has significant implication for physical functioning in chronic non-cancer pain. Fatigue is one of the issues that confront patients with low back pain. Pain tends to make individuals feel quickly tired or exhausted, thereby reducing the ability of the individual to function physically and socially (Ameringer, Elswick Jr, & Smith, 2014).

Evidence available also suggests that individuals with chronic pain, including those with LBP, have a higher risk of developing fatigue (Fishbain et al., 2004; Perry, Dean, & Devan, 2016). Snekkevik, Eriksen, Tangen, Chalder, and Reme (2014), investigated the relationship between fatigue and pain among 569 chronic low back pain patients concluded that 70% of the vast majority of sick-listed CLBP patient-reported substantial

fatigue. The experience of fatigability in low back pain may also cause long-term disability which subsequently leads to functional limitation. Additionally, a cross-sectional survey of 215 chronic low back patients concluded that fatigue was predominant among 95% of the participants (Salvetti, Pimenta, Braga, & McGillion, 2013).

Likewise, the sexual life of a patient suffering from chronic low back pain is negatively affected. These disturbances in sexual life affect the sexual act and quality of life of the patient, as stated by Bahouq Hanane, Fadoua, Hanan, Ihsane, and Najia (2013). The study further reported that among 100 Moroccan chronic low back patients studied, 81% of them complained of sexual difficulties. Sex life was virtually regular but very painful, severely restricted and almost absent due to pain in 30, 18, and 11% of the patient, respectively. Libido decreased, and painful intercourse position was also reported in 14.8% and 97.5% respectively. In concluding the study suggested that sexuality should be included in managing CLBP.

In describing the specific physical and psychological problems associated with sexual activity among 327 patients with chronic pain, Ambler et al. (2001) reported that 73% of the respondents had pain-related difficulty with sexual activity. Most of the respondents had problems related to arousal, position, pain exacerbation, performance worries and relationship problems. All were associated with less frequent sexual activity except position difficulties, and there were few differences among men and women. The study established that the range of problems and patients expressed preferences for help suggest that a multidisciplinary intervention is needed.

Berg, Fritzell, and Tropp (2009) discovered in a randomised controlled trial among 152 Swedish CLBP patients selected for surgery that, before the surgery, 34% of the patients reported that their sex life resulted in extra LBP and 30% reported severe restriction in

their sex life due to their low back pain. Ferrari and colleagues in a more recent study that investigated the disability due to low back pain among 697 Italian outpatients. They found out that among those who responded, 63% declared that their back pain caused them no sexual problems, 37% reported having some difficulty or disorder. Only 7% answered that their pain strongly limited their sex life. Female patients were more affected than males (Ferrari et al., 2019).

Makris et al. (2017), in a qualitative study, assessed the physical, psychological, and social influence of back pain in older adults. The study found out that the physical impact of low back pain did not only reduce their daily activities and house chores but also caused patients to lose their will and desire to undertake those task or activity. Participants had the belief that back pain takes one's strength and leaves people not only unable but disinterested in those activities. The pain can disrupt even the minutest and most ordinary activities of daily living such that the activities now has to be done with the utmost care (Osborn & Smith, 2006; Stensland & Sanders, 2018).

2.7 Psychological Pain Experience

Psychological symptoms have often been reported as a consequence of chronic pain as well as a risk factor for the occurrence of later development of several chronic pain conditions including musculoskeletal pain and other functional pain disorders (Clauw, 2015; Fillingim et al., 2013; Huijnen, Rusu, Scholich, Meloto, & Diatchenko, 2015; Linton et al., 2011). Chronic low back pain of non-specific origin has proven to have a substantial psychological impact on sufferers (Kakpovi et al., 2017). The two most common forms of psychological disorders observed in patients with chronic back pain are anxiety and depression along with negative emotions and thoughts (Burke, Mathias, & Denson, 2015; Howe, Robinson, & Sullivan, 2015; Sagheer, Khan, & Sharif, 2013).

These psychological factors predict long-term disability for many pain conditions in addition to pain severity, emotional distress and patients response to treatment (Turk & Okifuji, 2002). Evidence has shown that patients with chronic pain more often than not experience depression, anxiety and sleep disorders which lead to ramification in the capacities of the patients (Driscoll & Kerns, 2016; McGuire, Nicholas, Asghari, Wood, & Main, 2014; Salvetti, Pimenta, Braga, & Corrêa, 2012). For instance, the rate of depression and anxiety disorders ranged between 20% and 50% in chronic low back patients (Dersh, Gatchel, Mayer, Polatin, & Temple, 2006; Katz, Rosenbloom, & Fashler, 2015).

According to a cross-sectional study (Kakpovi et al., 2017) in Lome which determined the rate of depression and anxiety among patient with chronic low back pain showed that 48 out of 123 chronic low back pain patients presented with anxiety. A similar prospective cross-sectional study which determined the prevalence of anxiety and depression among CLBP patients in Karachi, Pakistan found out that of the 140 patients 77(55%) and 68 (48.57%) showed an abnormal level of anxiety and depression respectively (Sagheer et al., 2013).

Also, in a systemic review of cognitive and behavioural risk factors for knee pain, it was evidenced that cognitive factors such as depression had a direct effect on pain (Phyomaung et al., 2014). Furthermore, research has shown that individuals with chronic low back pain exhibit symptoms of depression that prompts them to seek disability benefits and impact their ability to maintain normal daily activities of living (Gebauer, Scherrer, Salas, Burge, & Schneider, 2015). Studies carried out to improve understanding of chronic pain experience among Chilean older persons with spinal deformity revealed that chronic pain also affects one's emotional state. Women in the study lamented over how their inability to manage household chores and other care-related task causes them to

experience frustration, stress, and depression (Rodriguez, Abarca, Herskovic, & Campos, 2019). while others also exhibit emotional responses such as anger and frustration towards themselves due to their chronic pain (Snelgrove & Liossi, 2009).

Anxiety, anger, fear and depression as some psychological disorders are capable of worsening the pain experience, even though when expressed positively and assessed, these emotions help in pain management (Dunham, Ingleton, Ryan, & Gott, 2013; Peters, 2015). These negative emotions, irritability, and feelings of anger that mostly affect patient with chronic pain negatively impact their interpersonal relationships. Furthermore, it leads to levels of stress in families (Henwood & Ellis, 2004). Chronic pain also makes individuals harbour feelings of helplessness and vulnerability (Gran, Festvåg, & Landmark, 2010).

A study that, assessed the physical, psychological and social impact of restricting back pain on older adults indicated that individuals with back pain experience emotional distress such as feeling sad, irritable, fears about worsening health, loss of hope in regards to recovery or pain relief (Makris et al., 2017). Hong, Kim, Shin, and Huh (2014), found out that fears and suffering are emotional responses that also accompany the pain experience. Moreover, the intensity of pain leads to more negative emotions, less positive emotions and fearful thinking about pain; thus pain captures ones attention and produces fearful thinking about pain (Crombez, Viane, Eccleston, Devulder, & Goubert, 2013; Legrain et al., 2012).

Negative thoughts about the cause or consequences of pain lead to poor outcomes (Hall et al., 2011; Main, Foster, & Buchbinder, 2010; Ramond et al., 2011). Stensland and Sanders (2018), again indicated that individuals with CLBP were psychologically bound to their pain in that they repeatedly paid attention, thought and worried about the pain. Dunham et al. (2013), revealed that individuals with pain experience a range of emotions and

concerns about the pain experience, which included anxiety, fear and helplessness. The pain experienced is also accompanied by the fear that analgesia will produce an unpleasant side effect.

Findings from Stensland and Sanders (2018), also brought to bear that fear exhibited by some patients are due to certain words or language used by HCP when explaining the patient's condition. This fear led to a sense of vulnerability around the spine and the need to adopt caution. A qualitative study conducted on self-efficacy and paradoxical dependence in chronic back pain also revealed that individuals with chronic back pain were unable to concentrate during task performance (Cummings, van Schalkwyk, Grunschel, Snyder, & Davidson, 2017).

Sleep is vital in keeping the emotional, mental and physical health of individuals (Hillman, Murphy, Antic, & Pezzullo, 2006). Sleeplessness increase among patients with chronic pain. Clinically, it ranges between 53% and 90% (Bahouq, Allali, Rkain, Hmamouchi, & Hajjaj-Hassouni, 2013; Daly-Eichenhardt, Scott, Howard-Jones, Nicolaou, & McCracken, 2016; Tang Nicole, Wright, & Salkovskis, 2007; Tang, Goodchild, Sanborn, Howard, & Salkovskis, 2012). Individuals with chronic low back pain are said to be 18 times more likely to experience clinically defined sleeplessness than those without chronic back pain (Tang Nicole et al., 2007).

For instance, Sezgin et al. (2015) investigated sleep quality in patients with chronic low back pain and its relationship with pain, functional status, and health-related quality of life in 200 patients suffering from a chronic low back. The results showed that the sleep quality of patients CLBP was worse when compared to healthy individuals and also inadequate sleep quality had a negative consequence on the physical domain of quality of life. In a similar study, Sribastav et al. (2017) reported that patients with non-specific low

back pain have a higher prevalence of sleep disorder, anxiety and depression than health person without low back pain. Furthermore, a study conducted to estimate the incidence of insomnia in patients with chronic back pain among 120 patients and to correlate with severity of back pain and disability, reported that of the 120, 25 had no insomnia, 39 had sub-threshold insomnia and 56 had clinically significant insomnia (Purushothaman et al., 2013).

Most patients suffering from chronic musculoskeletal pain including low back pain often have sleep disturbance despite taking analgesics (Artner et al., 2013; Park, Yoon, Yoon, Moon, & Kim, 2016). The nature of pain described as being ever-present, salient and characterised by unpredictable fluctuations in intensity during the time of sleep and waking (Bunzli, Watkins, Smith, Schütze, & O'Sullivan, 2013). The inability to sleep and interrupted sleep has also been described as a consequence of pain (De Souza Lorraine H & Frank, 2007; Raak & Wahren, 2006).

Pain beliefs are important psychological elements confronting persons with chronic pain and affect their satisfaction with pain management (Baird Andrew & Haslam, 2013; Berk & Bahadir, 2007; Cogan et al., 2014; Sloan, Gupta, Zhang, & Walsh, 2008). Pain beliefs are a "subset" of a patient's belief system, which represents a personal understanding of the pain experience" (p. 351). As such a patient's conceptualisation of the cause, timeline, and consequences of the pain provides them with a basis for coping with their pain, difficulties and an understanding of their disease (Williams David & Thorn, 1989). The belief that pain is mysterious has also predicted the mental health dimension of pain quality (Stroud, Thorn, Jensen, & Boothby, 2000).

Furthermore, patients who hold a stronger belief that pain is part of life, mysterious and must be endured are more likely to catastrophise and less likely to use specific cognitive

coping strategies such as reinterpretation of pain sensation (Dysvik, Lindstrøm, Eikeland, & Natvig, 2004). Jia and Jackson (2016) indicated that beliefs regarding pain had significant relations with severity, impairment, and distress in patients with arthritis. Pain beliefs and behaviours are essential in the sense that they help in coping and controlling the pain (Koçoğlu & Özdemir, 2011). Also, opinions about the causes and the consequences of the pain can as well affect how it is controlled (Babadağ, Alparslan, & Güleç, 2015; Sloan et al., 2008). In this regard, beliefs about the cause of back pain and the expected outcome may contribute to pain-related emotional distress (Campbell et al., 2013).

Singh, Newton, O'Sullivan, Soundy, and Heneghan (2018) explored chronic pain beliefs and experience of English –speaking Punjabi and white British people living with CLBP and how beliefs may influence the CLBP experience. The study reported that all the participant believed that their CLBP were mainly of biomedical origin, which was physical and either structural or anatomical. Most participants also recalled that health care professionals diagnosed the cause of their pain. Again, participants held a positive future outcome of their pain which mainly depended on earlier experience and individual personality. The Punjabi participants had a positive future outcome of their pain on the bases of their religion or belief in God.

A primary care cohort study regarding back pain beliefs in patients with low back pain reported among its several finding that some participants believed that the troubles with their back pains would simply end up in a wheelchair. In contrast, a few believed that troubles with back pain would remain for the rest of one's life. The results of the study also showed that other participants had a more positive belief about their back pain (Grøn Søren, Jensen, Jensen, & Kongsted, 2019).

Tarimo and Diener (2017), in a quantitative cross-sectional study on knowledge, attitudes and beliefs on contributing factors among low back pain patients attending outpatient physiotherapy treatment in Malawi. The study reported that among the total number of patients, 147 (72%) believed that their LBP would ultimately prevent them from working and would linger with them for the rest of their lives. However, 33% of the patients showed positive attitudes and beliefs concerning their pain, and 137 (66.8%) demonstrated negative attitudes and beliefs about their pain (Tarimo & Diener, 2017). Another, qualitative study conducted to explore the beliefs and management strategies of unconventional practitioners consulted by people living with CLBP in rural Nigeria revealed that low back pain was thought of by some participants a spiritual due to its persistency and unclear diagnosis. They attributed this to a spiritual event such as casting a spiritual spell on another person (Igwesi-Chidobe, Sorinola, Kitchen, & Godfrey, 2018).

According to Sherman and Simonton, (2012), having a sense of personal meaning is well thought of as an essential reserve for adjusting to illness. A longitudinal study that investigated the relationship between meaning in life in chronic pain over time with pain experience and psychological well-being concluded that having meaning in one's life is an essential aspect of the processes involved in adjusting to chronic pain. The study further concluded that meaning in life is a complex idea that cannot be efficiently screened and managed in a short visit to a physician; however, it appears to be a critical component to the well-being of patients with chronic pain (Dezutter, Luyckx, & Wachholtz, 2015).

However, many studies have not explored the search for meaning despite its importance in adjusting when faced with a medical stressor (Scrignaro et al., 2015). Frankl (1992), suggested that meaning in life after suffering, brings about great stability and fulfilment with life and it is unique to each person in the sense that each individual decides what makes his or her life meaningful. Also, a study conducted to examine the influence of

medical injury severity, perceived loss of physical functioning and global meaning-making on psychological well- being among 79 veterans living with spinal cord injury reported that meaning in life was positively associated with psychological well-being in the patients (deRoon-Cassini, de St Aubin, Valvano, Hastings, & Horn, 2009)

2.8 Social Pain Experience

Chronic pain also causes severe deterioration of an individual's social and familial environment. As a result of this, a multidisciplinary approach to pain management, including the family and social context, is required (Dueñas et al., 2016). This multidisciplinary approach is made possible through the use of the biopsychosocial model which is regarded as essential in pain and provides an outline for understanding how different illnesses relates through the assessment of sensorial, cognitive, and interpersonal elements (Scott et al., 2007). Experiencing chronic pain generates significant economic and social burden (Dueñas et al., 2015; P. Langley et al., 2010). This chronic pain affects not only the patient's sensory and emotional domain but also affect the patients family and social circle (Closs, Staples, Reid, Bennett, & Briggs, 2009; Ojeda et al., 2014).

Chronic pain is capable of interfering with a person's ability to interact with others socially (Porter, Keefe, Wellington, & de Williams, 2008), thus limiting or hampering leisure activities and social connections. Typically biopsychosocial domains are considered important factors that are capable of increasing the risk for poor prognosis. However, the social component in the biopsychosocial model has not received much attention (Hawthorne, de Morton, & Kent, 2013). Individuals with chronic musculoskeletal pain including low back pain may reduce their social contact with friends, family including other social networks (Nyvang, Hedström, & Gleissman, 2016; Smith et al., 2014).

Sometimes patients may decrease their social network by keeping away from friends/family due to failure in understanding their pain or they reduce the quality of contacts with family/friends because they want to hide what they are going through from other people (Poscia et al., 2018). For instance, pain reports have indicated that half of the individuals with pain conditions reported that their pain hindered them from attending social and family gatherings (Moulin, Clark, Speechley, & Morley-Forster, 2002). Subsequently avoiding social and family gathering results in greater social isolation and loneliness. Persons with low back pain of any duration are perceived to isolate socially, and even though this is an important prognostic factor, it has not been thoroughly investigated (Hawthorne et al., 2013).

Oliveira et al. (2015), confirmed that individuals with low back pain are frequently socially isolated than people in the general population, and those with high levels perception of social isolation have a more significant disability. The above clarifies the fact that the interactions among patients with chronic pain and their significant others can either facilitate or impair adjustment to chronic pain (Burns et al., 2016; Burns et al., 2013; Leonard, Cano, & Johansen, 2006). Froud et al. (2014), in their systemic review on the impact of low back pain on people's lives, noted that participants relationship with their significant others were impaired. This happens because they desired to avoid close relations and family activities when in pain, for some the inability to engage in various activities negatively impaired their relationship especially in terms of interacting with their children, and their marital relationship in terms of sexual activities.

Singh et al. (2018a), in their study, also found out that some individuals with chronic low back lost their ability to socialise, perform certain religious rituals due to back pain. The inability to engage in these daily activity leads to social isolation and for some women, the back pain interfered with their relationship with family members especially spouses who

sometimes got frustrated with them because they were unable to do a particular household task. Experiencing pain affect different areas of a patient's life and negatively interferes with their daily activities, physical and mental health, family and social relationships, and their interactions in the work environment (Langley, Pérez Hernández, Margarit Ferri, Ruiz Hidalgo, & Lubián López, 2011).

A longitudinal study conducted to determine whether social isolation in persons with persistent pain determines pain interference and physical function over time reported that the feeling of social isolation predicted a higher rating- of pain-related interference (Karayannis, Baumann, Sturgeon, Melloh, & Mackey, 2019). Evidence from a qualitative study conducted to evaluate the perception of women diagnosed with endometriosis and chronic pelvic pain with regards to their social ties after the onset of disease symptoms revealed that several of the participants socially isolated from family and friends (Mellado et al., 2016).

Available evidence has shown that low back pain is also occupationally related and thus affects the economically active persons in the population. It causes work incapacity, sufferings, and cost due to lost productivity, days off work and premature exit from paid work (De Goumoëns, Schizas, & So, 2006; Gustavsson et al., 2012; Weiner, Sakamoto, Perera, & Breuer, 2006). Similarly, chronic pain affects satisfactory performance at work, causes absenteeism and lower productivity, and affects one's ability to accomplish certain obligations. These effects on the working environment make it difficult for the patient to maintain a normal lifestyle (Closs et al., 2009).

An ethnographic study including 34 villagers with musculoskeletal pain in Botswana reported that some participants lost their independence due to their inability to work and relied on others for income and sustenance because of their pain, others also worked

despite their pains but did so with much difficulty (Hondras, Hartvigsen, Myburgh, & Johannessen, 2016). Dutmer et al. (2019), in their study on the personal and social impact of low back pain in patients, reported that some of the patients were permanently out of work due to LBP, others took sick-leave and majority were working but with less efficiency.

The Report of a qualitative study on the impact of low back pain on daily occupation in Iran also stated that one of the biggest problems of the participants were with their work or job. The study stated that some participant's back pain interfered with their work in the sense that they could not lift simple objects. Some whose jobs were to visit patients in their homes could no longer do so because long-distance driving aggravated their pain. Moreover, most of the participant complained of always concentrating or thinking about their pain. Thus affecting their work and other activities. (Dehkordi, Khankeh, Hassani Mehraban, & Hosseini, 2016)

2.9 Coping Methods

Low back pain is considered as being part of a person's everyday life due to its high incidence. In some instances the inadequate and unavailability of healthcare resources makes individuals adopt specific coping strategies in the form of physical, emotional and spiritual measures to deal with the pain (Büssing, Ostermann, Neugebauer, & Heusser, 2010). Furthermore, when people are confronted with a particularly harmful situation in their lives, they try to draw on already available coping skills that they might have used to overcome those situations. However, in the case of chronic pain, those coping abilities may be unhelpful (Eccleston, Morley, & Williams, 2013).

Lazarus and Folkman (1984), defined coping in a broader sense as a psychological process that involves the use of behavioural and cognitive strategies to control external

and internal stresses that are perceived by a person as being beyond his/her resources. Coping with pain is an essential factor in the ability of a person to perceive and respond to pain. As such, it plays a vital role in the process of healing (Peres & Lucchetti, 2010; Turner, Jensen, & Romano, 2000). The different ways in which individuals utilise coping strategies is dependent on differences in pain intensity, adjustment to chronic pain, psychological and physical function. Persons with chronic pain, including those with low back pain, use a range of cognitive and behavioural strategies to cope with their pain. (Stoffel, Reis, Schwarz, & Schröder, 2013).

Coping may be categorised into general active strategies for relieving, controlling or functioning with pain, and general passive strategies include withdrawal, avoidance, and negative self-statements about the pain. Also, pain- coping activities and cognition can be adaptive or maladaptive depending on their immediate on long- term consequences regarding pain, physical functioning, and psychological functioning (Kraaimaat & Evers, 2003). Patients with chronic pain, including those with low back pain use pharmacological and non-pharmacological means to cope with their pain.

Pharmacological strategies include drugs such as non-steroidal anti-inflammatory drugs (NSAIDs), opioids, paracetamol and antidepressant, anticonvulsants, muscle relaxants, topical treatment among others are used to cope with the pain (Axon, Patel, Martin, & Slack, 2019; Chou Roger et al., 2007; Morlion, 2011; Savigny et al., 2009). For example, a qualitative study explored the lived experience and chronic low back beliefs of English – speaking Punjabi and white British people. The study, among its several findings, also noted that participants used medications as a coping strategy (Singh et al., 2018a).

Additionally, several studies (Büssing et al., 2010; Jensen, Turner, & Romano, 2001) investigated coping strategies among a group of chronic pain patients and reported that

patients also used opioid medication. Again, a qualitative study on the quality of life and coping strategies among immigrant women living with pain in Denmark showed that the women, among other strategies, also coped with their pain by taking pain killers (Michaëlis, Kristiansen, & Norredam, 2015).

According to Aziato and Adejumo (2014), effective management of pain in patients is dependent on health professionals' attitude. Therefore, the caring relationship is an essential element in healthcare, both in nursing and medical management. Qualities such as kindness, being sensitive and showing respect among others during the interaction in a professional context are not only essential for the fact that they show emotional attractiveness but also positively affects the patient's health and well-being, safety and patients satisfaction with the quality of care (Adair, 2010; Charlton, Dearing, Berry, & Johnson, 2008; Griffin et al., 2004; Jangland, Carlsson, Lundgren, & Gunningberg, 2012; Jangland, Larsson, Carlsson, & Gunningberg, 2011).

Thus According to Zarei, Joulaei, Darabi, and Fararouei (2015), the inappropriate attitudes of health professionals who are in close contact with the patient inflict additional pressure on the patient. All categories of health workers are noted to fall short of this negative attitude one way or the other (Abiodun, 2010). Positive and negative attitudes of health professionals influence the patient's response to pain. When attitudes displayed by a health professional are positive, patients are motivated to report and express their pain. In contrast, negative attitudes prevent pain reporting (Aziato & Adejumo, 2015). Therefore, good interactions between individuals with chronic pain and their health care providers may result in improvement of patients care, enhanced assessment and effective intervention (Turk & Melzack, 2001). Some researchers have debated that obtaining a suitable treatment success is primarily dependent on the health care provider having a collaborative and close working relationship with the patient (Norcross & Lambert, 2011).

A qualitative study examined the relationship between chronic low back pain, sense of self-efficacy, perceived role in an interpersonal relationship, both in the community and within the healthcare system. The study reported that participants mentioned that they had a previous negative relationship with health care providers where health care providers did not endorse the intensity of their back pain (Cummings, 2018). Participants in the above study also cited instances where they had a positive encounter with health workers who sincerely listened to them, endorsed their pain and were concerned about other areas of their lives that were affected by the pain. They were appreciative of how helpful the health workers were. In a similar study, participants spoke of how their Doctors treated them well by always paying attention, listening to them and offering them all the information needed such that they understood their pain condition and could explain it in details (Rodriguez et al., 2019).

Low back pain immensely affects the economic situation of people who are afflicted by it. Thus, they are unable to accrue wealth when compared with people without LBP (Schofield et al., 2015). Evidence shows that LBP has a high indirect societal cost (Hutubessy, van Tulder, Vondeling, & Bouter, 1999; Tan, Bouwmans, Rutten, & Hakkaart-van Roijen, 2012). However, direct healthcare costs such as specialist medical consultations and hospital costs are also high (Hutubessy et al., 1999; Itz, Ramaekers, Van Kleef, & Dirksen, 2017; Maniadakis & Gray, 2000).

For instance, a study that assessed the impact of chronic discogenic low back pain also found out that, many of the study population spent more on physical therapies, psychotherapy and pain medication (Geurts, Willems, Kallewaard, van Kleef, & Dirksen, 2018). Similarly, according to descriptive cross-sectional studies among patients with low back pain seeking healthcare at both secondary and tertiary hospital in Nigeria Kano, the direct healthcare cost related to the management of low back pain included medical

diagnostics which had the highest cost (37.94%), followed by the cost of supportive devices (19.3%), physiotherapy cost (18.3%) and physician visits (14,1%) (Bello Bashir, 2017).

Also, non –pharmacological therapies are used in the patient with low back pain especially patients suffering from chronic low back pain to cope or manage their pain (Qaseem, Wilt, McLean, & Forciea, 2017). According to Axon et al. (2019), some of the non-pharmacological methods include; physiotherapy/exercise, massage, acupuncture, restriction or modification in activities, using an assistive device, altering body position, rest, sleep, prayer and meditation. For example, a qualitative study explored the lived experience and chronic low back beliefs of English –speaking Punjabi and white British people. The study among its several findings also noted that some participants sought online information, stretching exercises, and others use massage, acupuncture, majority avoided activities and heeded to advise to protect their back (Singh et al., 2018a).

Michaëlis et al. (2015), in their study on the quality of life and coping strategies among immigrant women living with pain in Denmark, noted that the women coped with their pain by reducing daily activities, getting help from others, keeping occupied and diverting attention. Furthermore, a result from a qualitative study among immigrant Chinese women in Italy discloses that the women employed coping strategies such as reducing daily activities and working less or reducing working hours (Re et al., 2017).

Another quantitative study regarding coping strategies among older and young patients having low back pain with prolonged physiotherapy wait found out that the patients employed specific coping strategies. These coping strategies included; praying and hoping and increased behavioural activity, ignoring, and attention distraction. (Cabak et al., 2015). Similar studies in patients with herniated lumbar disc coexisting with spondylotic changes

after surgical treatment revealed that patients with chronic low back pain use coping strategies such as resting, praying and hoping (Misterska, Jankowski, & Głowacki, 2013).

A Korean study in patients with chronic low back pain indicated that guarding, resting, asking for assistance and seeking social support were some of the coping effort utilised by patients (Ko, Park, & Lim, 2010). Jensen, Turner, and Romano (1991) investigated coping strategies among a group of chronic patients and noted that patients employed stretching exercise, rest, being busy with something interesting, muscle-strengthening exercise, and ignoring the pain as a means of coping with their pain.

Büssing et al. (2010), carried out a cross-sectional study on adaptive coping strategies in patients with chronic pain conditions and their interpretation of disease. The study reported that patients coped with their pain by trusting in medical help, a search for information, trust in divine help and a positive attitude, among others. Religious/Spiritual support is a resilient element that has also been proven as a better way of adjusting to chronic pain by endorsing adaptive coping skills (Edwards, Dworkin, Sullivan, Turk, & Wasan, 2016). Pain management is a fundamental aspect of patient care as accepted by the Joint Commission and the World Health Organization (Glowacki, 2015). Unfortunately, persistent pain can remain despite treatment, and evidence-based research has shown that patients with low back pain also use spirituality as a suitable coping mechanism (Baldacchino et al., 2013; Lysne & Wachholtz, 2011; Tabei, Zarei, & Joulaei, 2016).

Religiosity and spirituality employed as a coping strategy give a person a feeling of support outside the physical domain as it enables one to relate with a higher transcendence capable of solving all problems that they might be going through (Morgan et al., 2014; Philip Siddall, Lovell, & MacLeod, 2015). Spiritual/Religious coping is dependent on the empowerment and security obtained from God, the magnificence with whom people can

achieve hope, strength and build a trustful relationship (Baldacchino et al., 2013). Some studies have established that persons who employ certain spiritual practices such as reading, Bible, listening to religious or spiritual songs, receiving guidance from the clergy, can tolerate both acute and chronic pain better (Reiner, Tibi, & Lipsitz, 2013; Taylor et al., 2013).

Furthermore, patients who resort to prayers and church attendance as a way of communicating their burden of pain and putting their hope and faith in a superior transcendence called God are confirmed to have adjusted positively to pain (Dezutter, Wachholtz, & Corveleyn, 2011). In a cross-sectional study looking at the burden of low back among fishers in River State Nigeria, Dienye, Birabi, Diete-Spiff, and Dienye (2016) discovered several coping strategies among which religion/spirituality was the highest coping strategy. Additionally, Rodriguez et al. (2019), in their qualitative study of older people with chronic pain, also noted that most participants resorted to prayers aside from taking their medication.

Moreover, social support can eradicate or weaken the adverse effects of a perceived stressor on health and quality of life. Social support, therefore, refers to the perception that one is cared for, has help available from other people and belong to a supportive social network (Ditzen & Heinrichs, 2014; Sturgeon & Zautra, 2016). Social support improves health and well-being and facilitates coping and strategies for adaption when required (Leahy-Warren, 2014), therefore the loss of social support can lead to isolation, strain in a relationship thus impacting the well- being of an individual (Merluzzi et al., 2019).

For example, according to Bailly, Foltz, Rozenberg, Fautrel, and Gossec (2015), patients with chronic low back pain receive support from family and friends. The family and friends offered them help by listening to them, understanding their struggles with pain

management, and some were also encouraged to engage in more activities. The study further found out that some patients with low back pain could not live up to their social roles at the workplace and therefore received support by relying upon other colleagues to do their work.

Another qualitative metasynthesis exploring the experience of living with chronic low back pain found out that participants family and friends provided them with emotional and physical support which according to participant helped them in reducing their low mood or depression (Snelgrove & Liossi, 2013). Studies conducted on the daily life of older individuals with chronic pain in Chile also found out that many of the participants spoke of how friends visited them at home, and how their children took care of them and called often. They again narrated how household members and children supported them in doing their house chores (Rodriguez et al., 2019). In a similar study, Re et al. (2017) found out that participants in their study received immense support from their family members, mostly their children supported them in their work and daily activities. Participants saw this as very useful in helping them deal with the burden associated with chronic pain.

2.10 Summary of literature

The literature review conducted was on the experiences of patients living with low back pain. The review concentrated on pain characteristics, pain expression, pain exacerbating factors, and physical pain experience, psychological pain experience, social pain experience and coping methods. Furthermore, the review showed that low back pain is influenced by multiple factors or multidimensional factors which affects the functionality and quality of life of patients. Most of the studies reviewed were from high-income countries, with only a few studies in Africa. In Ghana, although some studies have delved into low back pain, there is still a paucity of data on the experience of patients living with low back pain. As such, the use of a qualitative method to examine this phenomenon in the

Ghanaian context to enhance adequate understanding and effective management is warranted.

CHAPTER THREE

METHODOLOGY

This chapter describes the research processes employed in undertaking the study. Its purpose is to explain the research methods and designs applied in the study. Since the study was aimed at exploring the experiences of patients living with low back pain, the chapter involved a description of the research design, settings of the study, the sample size, sampling procedure, data collection technique, data management and analysis. The chapter concluded with methodological rigour and ethical consideration of the study.

3.1 Research Design

According to Polit and Beck (2013), a research design represents the overall strategy as to how the researcher plans to provide answers for the research questions identified. Again, Grove, Burns, and Gray (2012) also described research design as a general blueprint for implementing a study selected to obtain answers for a particular research question. Moreover, researchers employed this method to enable them to gain an understanding of the rationale for people's behaviour (Rosenthal, 2016). Again, a qualitative research design makes sense of peoples experiences (Crowe, Inder, & Porter, 2015) and its vital interest is on the individual who has gone through the problem under investigation (Polit & Hungler, 1998).

An approach with qualitative methods may furnish researchers with the techniques to discover or explain a vital aspect of the pain experience of patients in ways that are not accessible to other methods or approaches (Osborn & Rodham, 2010). Hence the study utilised a qualitative research design using an exploratory and descriptive approach since minimal information exists on the experiences of people living with low back pain. The exploratory and descriptive approach gave the researcher the leverage to engage in an in-depth exploration of the phenomenon under study (Jeanfreau & Jack Jr, 2010). These

experiences to be explored concentrated on pain characteristics, physical pain experiences, psychosocial pain experience, psychological pain experience, pain aggravating factors, and coping methods.

3.2 Research setting

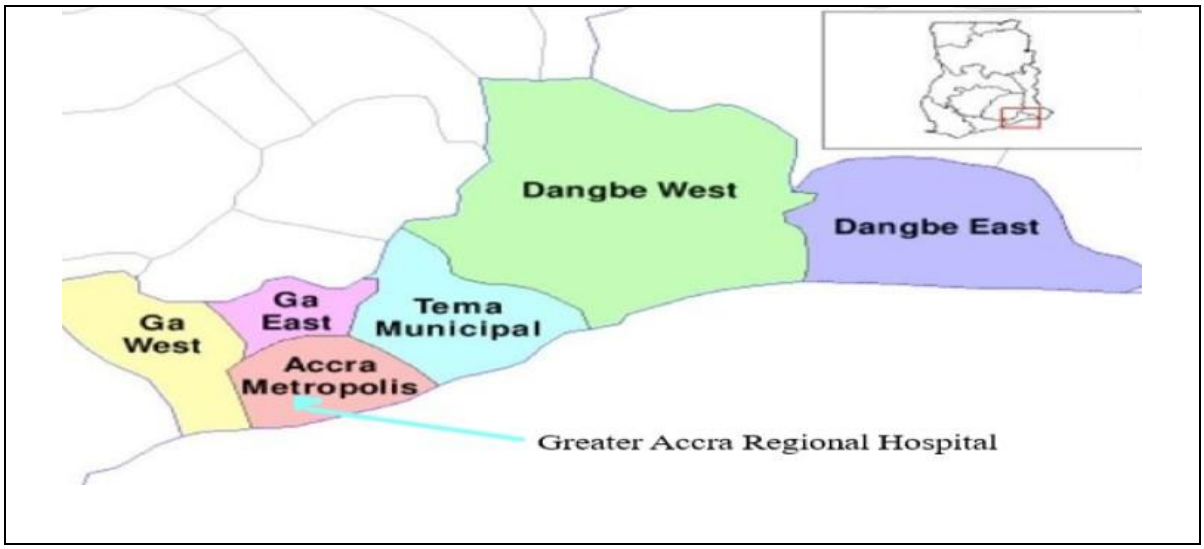

Figure 3. 1: Map of Greater Accra Region, showing the location of the Greater Accra Regional Hospital and its surrounding environs.

The study was undertaken in the Accra metropolis using the outpatient's department of the Greater Accra Regional Hospital (Ridge) as an outlet for recruiting the study participants. The Accra Metropolitan is among one of the 260 Metropolitan, Municipal and District Assemblies in Ghana, and forms part of the 29 Metropolitan, Municipal and District Assemblies in the Greater Accra Region. It has Accra as its capital and located in the Southern part of Ghana. It covers an area of 173 square kilometres and shares a common boundary with La-Dade Kotopon Municipal from the East and Ga West, Ga Central and Ga South Municipal Assembly from the West. The Metropolis further shares a common boundary with the Gulf of Guinea.

The population of the Metropolis stands at 1,665, 086 with 800,935 males and 864,151 females according to the 2010 population and housing census (Ghana Statistical Service, 2012). The metropolis has 11 sub-metropolitan areas namely: Ablekuma Central; Ablekuma North; Ablekuma South; Ashiedu Keteke; Ayawaso Central; Ayawaso East; Ayawaso West-Wuogon; La, Okaikoi North; Okaikoi South; and Osu Klottey. The indigenes of the metropolis are the Gas who have fishing and trading as their primary occupation. However, most of the population in Accra migrated from various places with diverse ethnic characteristics and cultures, making the city cosmopolitan. Aside from the Ga language, other languages such as Twi, Ewe, Hausa and Adangbe are spoken by the people in the Metropolis. University of Ghana (Ghana's premier University), as well as other state and private-owned educational facilities, are located in the Accra Metropolis. Regarding health, there are several health facilities in the metropolis, including government, quasi-government, mission and private facilities which offer healthcare services. The Greater Accra Regional Hospital (GARH) formerly known as the Ridge Regional Hospital is situated at North Ridge (along the castle road) in the Osu-Klottey Sub-Metro of the Accra Metropolitan Area in the Greater Accra Region. It occupies a total land area of about 15.65 acres.

As the Regional Hospital for the GAR, its catchment area is the whole of the Greater Accra Region, with an estimated population of over 4,671,363 (2015 projection based on 2010 census by the Ghana Statistical Service, GSS 2010). The immediate catchment area, however, includes the following suburbs: Ridge, Nima, Maamobi, Kanda, Accra New Town, Kotobabi, Osu, La, Adabraka, Achimota, Airport Residential Area and Central Accra. Located at the heart of Accra city, the GARH started as a Hospital for European expatriates around 1928. It became a District Hospital after Ghana's independence in 1957 and later designated as the Ridge Regional Hospital in 1997.

It is now undergoing redevelopment and transformation into an ultra-modern 620-bed capacity hospital with the full complement of specialist services that reflect the current social aspirations of the rapidly growing capital city of Ghana at the time of the study. Currently, phase 1 of the new hospital has an ultra-modern 420-bed capacity, a specialised diagnostic and treatment block with 24-hour surgical services, delivery services, accident and emergency and pharmacy services. The facility serves as a referral centre and receives a referral from all part of the region and beyond.

The facility offers an array of out-patient services including general out-patient department service, radiology, physiotherapy, 'cervicare', emergency recovery/casualty services to its clients, including those with low back pain. Again, the hospital offers other specialist services such as internal medicine, urology, clinical psychology, obstetrics and gynaecology. Some other specialist services such as surgery, neurosurgery, and mammography are also accessible at the facility. It is thus helping to accommodate the needs of virtually all of its clients. Patients with low back pain at varying stages of diagnosis also access the facility where they are either managed surgically or conservatively. It also has a logistic building, a 42-unit accommodation facility for staff, a School of Anaesthesia, a new Mortuary and a new internal road network. The new health facility is fully furnished, properly networked and runs on a paperless system.

3.3 Population

The target population of a study is the group of people whose characteristics are of interest to the researcher (Martínez-Mesa, González-Chica, Duquia, Bonamigo, & Bastos, 2016). The target population for this study consisted of patients living with low back pain in the Accra metropolis and accessing healthcare services at the Greater Accra Regional Hospital (Ridge).

3.4 Inclusion Criteria

The following were the inclusion criteria: (a) Patients who have been diagnosed as having low back pain and are aged 18 years and above; (b) Patients who have experienced low back pain for more than a month and beyond; (c) Patients with low back pain who can understand and speak English, Ga or Twi; (d) Patients with low back pain who are willing and ready to participate and can as well give consent.

3.5 Exclusion Criteria

The following where be the exclusion criteria: (a) Patients with low back pain with any form of mental illness; (b) Patients with low back pain who are on admission or seriously ill.

3.6 Sample size and Sampling method

The researcher sampled 13 participants who took part in the study. The selection of this sample size was based on the researcher obtaining adequate data on the objectives of the study and it is referred to as saturation. In qualitative research, saturation is attained when no new theme or subtheme are emerging, and the researcher does not obtain any new thought or ideas after repetitively interviewing study participants (Houghton, Casey, Shaw, & Murphy, 2013; Trotter II, 2012). The researcher engaged in a face-to-face interview with participants who agreed to take part in the study, and repetitively interviewed participants of the study until no new information was emerging. Thus, saturation was achieved after interviewing the thirteenth participants (13th).

The researcher also employed a purposive sampling technique to select the sample of the study, and this assisted the researcher to include participants who had specific knowledge and were able to give detailed information on the experiences of living with low back pain (Marshall & Rossman, 2014). This method was suitable for the study since the researcher

wanted to select participants who could best provide the needed data for the phenomenon under study (Eo, Kim, & Lee, 2014; Parahoo, 2014). Moreover, it is suitable sometimes for the researcher to choose their sample based on the knowledge of the population, its element and the nature of the research aims (Babbie & Rubin, 2008). In recruiting the participants the researcher visited and established rapport with the in-charges of all the units and made them aware of the research and struck an acquaintance with the prospective participants who voluntarily agreed to be part of the study. Their contact numbers were taken and convenient date and time were agreed upon for the interview.

3.7 Data Collection Tool

Collection of data occurred through the use of semi-structured interviews to allow the researcher to administer the interview in a well-ordered and more comprehensive way (Al-Busaidi, 2008; Hyland, 2016). A semi-structured interview guide was formulated based on the objectives of the study, the literature, as well as the constructs of the guiding model: Biopsychosocial model of pain by Engel (1977). The guide comprised two sections (A and B). Section A consisted of the demographic characteristics of participants which includes age, gender, occupation, religious background, level of education, and marital status, Section B consist of the main interview questions with several probe questions which has the aim of addressing the objectives of the study. (Appendix E)

3.8 Data Collection Procedure

Data gathering took place after obtaining ethical clearance from the Ethics Review Committee of the Ghana Health Service. An Official letter from the School of Nursing and Midwifery University of Ghana together with a copy of the ethical clearance letter was sent to the Management of the Greater Accra Regional Hospital. The researcher used the outpatient department of the hospital as an outlet for recruiting participant after permission was obtained from the hospital authorities to undertake the study, and a letter (Appendix

C) of approval was issued by the research department of the hospital to give the researcher access to the recruitment outlet. The researcher acquainted herself with the orthopaedic, neurosurgical, and physiotherapy departments of the hospital where patients with low back pain are usually treated.

The researcher established rapport with the various heads and nurse in charges of the departments aforementioned, and their support was solicited in recruiting the participants. According to Jacob and Furgerson (2012) building, a good rapport with participants could aid in eliciting better responses. Potential participants who met the inclusion criteria were interacted with to ensure rapport building. The researcher then allowed participants who gave their consent to partake in the study. Participants were subsequently given the participant information sheet that summarized the research and any other relevant information to read for more insight into the study after offering verbal explanations.

Participants who read and understood were then allowed to sign the consent information forms (Appendix D) voluntarily and were enrolled in the study. The researcher commenced data collection by making appointments with some participants who accepted to participate in the study. Some of the interviews took place in an enabling environment within the hospital setting at a convenient time while others took place in the various offices of other participants who also accepted to participate in the study at their break time. Participants were encouraged to answer the question as they desired without any compulsion and were also made aware that they are free to drop out from the study anytime they so wish.

Also, participants were informed about their right not to respond to questions they deem sensitive enough to uncover unpleasant memories during the interview process. Before the interview, participants filled a form containing the biographic data, and the interview was

conducted mainly in English since all the participants were able to express themselves in it fully. The interview entailed a face to face interaction between the researcher and the participants and lasted between 30 to 60 minutes. The interview was audio-recorded with permission from the participants as part of the consenting process. The researcher notified the participants that the rationale for audiotaping was to allow adequate capturing of every detail of their responses to ensure precise and rich data for analysis.

Good probing occurred when needed during the interview to make sure that sufficient and detail responses were obtained. Short notes or field notes were written during the interview process. Non-verbal cues and certain mannerisms from participants were noted or observed to enrich the meaning of the participant's pain experience. The researcher used more flexible open-ended questions and employed intentional silence during the interview to allow participants the liberty to express their thoughts. The researcher ensured confidentiality and anonymity by utilizing identification codes for each of the participants. Further education was given to the participants that the raw data collected were only for academic purpose and that only the principal researcher and supervisors will have access to the data collected.

3.9 Pretesting/Piloting of research instrument

Harding (2018) mentioned that the necessity for a qualitative interview to be piloted is not pretty evident because as the interview progresses, the quality of the interview guide improves. However, he stated that it is helpful to pilot the interview questions to modify the interview guide before undertaking the actual study. Also according to Kvale (2007), conducting a pilot study before the main study allows the researcher to identify whether the interview guide has some errors or limitations that will make way for further adjustments to the interview guide before the actual study.

The family medicine department of the Greater Accra Regional hospital was used to pilot the study with three (3) participants who met the inclusion criteria. This unit was selected because some patients who are treated in the unit also have the same experiences as those in the main study. The pilot study was performed to ensure that the questions in the interview guide were straightforward and also determined whether the questions will meet their intended purpose for the study (Hilton, 2017). The interview was conducted using the interview guide after participants gave their consent. Data generated were transcribed, and necessary modifications were made in the interview guide that was used in the main study. The pilot test also helped in sharpening the interviewing skills of the researcher.

3.10 Data Management

According to Sutton and Austin (2015), data management primarily refers to the storage and retrieval of research data in a way that simplifies data analysis. As such, the researcher used both manual and computer-based software (NVivo version 12) to help in organising and analysis of the data. In ensuring confidentiality, participant's identities were not attached to the transcript during the process. Each participant was assigned a code "P 1", P 2" where P represents Participants and the number denoting the number of participants that were interviewed to allow for easy identification by the researcher. A file was created for each participant's response enclosing the interviews that were transcribed and audiotapes, transcripts, field notes, and consent forms were safeguard in a drawer under lock.

They were made accessible to only the researcher and supervisors. Data collected were kept in a password protected hard drive, and pen drive as well as stored on a personal computer accessible to only the researcher. Also, tapes and transcripts were kept separate from the demographic information sheets of participants under the custody of the

researcher and was accessible to only the researcher and the supervisors. The data will be kept for five years following the study until it is discarded.

3.11 Data Analysis

Qualitative data analysis is the act of making sense of data by submerging oneself into it through an iterative process (Hanson, Balmer, & Giardino, 2011). In qualitative research, the analysis of data must occur alongside data collection (Green et al., 2007) to let the researcher improve upon the depth and quality of the interview as initial analysis provides a better approach in the subsequent interviews (Vaismoradi, 2013). In this regard, data were analysed at the same time with data collection utilizing both thematic and content analysis which addressed the research objectives as well as the literature review. According to Miles and Huberman (1994), The processes of data analysis involves Data reduction, Data display, Drawing conclusion and Verification. This study commenced with the data reduction phase of the analysis, which included summarizing, coding and grouping or arranging the transcribed data.

At the end of the interview, the researcher did a verbatim transcription of the audio-taped recording of the interview and preliminary coding were later exported into NVivo to create codes; the principal codes created were given labels that represented the stipulated objectives. Also, the researcher severally read the transcript to ensure its accuracy. Listening to the audio-taped recording was done to be familiar with the data as well as the response pattern. While familiarizing with the data, the researcher took cognizance of recurrent ideas, words, and thoughts that seemed to span across the entire data set. These ideas, words and thoughts were coded and rearranged to developed theme and sub-themes. Here, the researcher also took notice of how the identified themes were related to the research questions and re-read the identified themes to guarantees that the codes captured under the various themes relate to those themes.

New categories and themes that developed were added to the list compiled until all the transcribed data were entirely exhausted. Similar themes were put into categories, and coding and data analysis were discussed with research supervisors to come out with suitable data analysis. Quotes from participants at this stage were used to support the themes generated. The participants were given code names at this stage for easy identification. Furthermore, responses from participants were confirmed by follow-up questions. In the end, the findings were then interpreted and conclusions made from the categories and themes to reflect the experiences of participants on their experience of living with low back pain. This stage of the data analysis forms the data conclusion and verification phase of the content analysis.

3.12 Methodological Rigour (Trustworthiness)

Rigour discusses the degree to which the researchers strives for excellence and how they adhere to detail and accuracy. Parahoo (2014) highlights that although rigour can be challenging to determine in qualitative research, researchers want their findings to reflect truthfully the phenomenon they are studying and to contribute to knowledge that is beneficial to others. The researcher utilized the framework by Lincoln and Guba (1985) to ensure the trustworthiness of this study. The framework covers the following four standards for developing the trustworthiness of a qualitative study, credibility, dependability, conformability and transferability (Lincoln & Guba, 1985).

Credibility: credibility is attained when qualitative approaches or procedures used to produce confidence in how authentic the study is and subsequent interpretation of the data (Polit & Beck, 2013). The researcher, through the use of semi-structured interviewing techniques, tape recordings of the interviews and transcriptions of verbatim quotes, ensured increased accuracy of the descriptions of participants‟ perspectives (Speziale, Streubert, & Carpenter, 2011). Also, in enhancing credibility, the interview questions were

reframed and sometimes repeated during the interviewing process to ensure that participants understood and answered questions appropriately (Krefting, 1989).

The researcher also ensured that only participant who met the inclusion criteria were selected to participate in the study. Again, field notes were maintained to keep track of all nonverbal communication from participants and adequate time (30-60 minutes) was spent with participants to ensure further probing and detailed information were elicited from participants. Finally, the phenomenon of credibility was enhanced by giving the findings of the study to colleagues and supervisors to review and comments on. Comments raised improved confidence in the study findings.

Dependability: dependability can be described as a research audit that has to do with the ability of the data to remain stable over time. Dependability enables other people who read the research can follow the same procedures used during the study to obtain the same results or arrive at the same conclusion. Additionally, another crucial aspect of dependability is its ability to make available a thorough description of the research methodology (Prion & Adamson, 2014). The researcher used an audit trail to enhance the dependability of the study by making sure that all field notes were taken during the interview, the transcripts and audio recording represented the exact views of participants which increases the dependability of the research. The researcher ensured dependability through a thorough description of every step that was involved in the research process during the entire study. Every single interview conducted was transcribed and analysed following similar processes to come out with the themes and sub-themes.

Confirmability: refers to the data representing the information participants provided (Polit & Beck, 2009). In ensuring that confirmability, the researcher collected a piece of in-depth information on the experiences of participants regarding their back pains. Also,

responses that were not so clear were clarified with participants to ensure that the data gathered represented what was said by participants. Data were collected until saturation was achieved with no new ideas. Data analysis centred on the information given by participants without prejudices from the researcher.

Transferability: This specifies the extent to which the findings of a qualitative study can be useful to similar groups or situations (Parahoo, 2014). In achieving transferability, comprehensive background information about participants, the study setting, as well as the methodology used, were explained to allow readers to examine how transferrable the findings of the study are. The researcher, at all times, strictly paid attention to details, adhered to procedures and ensured consistency and accuracy throughout the research process. The above-explained strategies assisted the researcher to ensure the trustworthiness of the study.

Additionally, to avoid researcher partiality, the researcher used reflexivity. Reflexivity is the process of reflecting on one's self as the researcher to provide more effective and impartial analysis. It involves consciously accepting the assumptions and preconceptions one brings into the research which subsequently shapes the outcome (Wilkie, 2015). The researcher, therefore, ensured that the result of the study represents a true reflection of the pain experience among the patients with low back pain. Again, the researcher also used member checking to cross-check information gathered with other participants.

3.13 Ethical consideration

The researcher acquired ethical clearance with the number (GHS-ERC 026/10/19) (Appendix B) from the Ethics Review Committee of Ghana Health Service (ERC) with a proposal, supporting letters from supervisors and an introductory letter from the School of Nursing and Midwifery before the commencement of the study. Copies of approved

letters from the (ERC), introductory letter, and support letters from the School of Nursing and Midwifery was presented to the management of Greater Accra Regional Hospital. An authorization letter was then obtained to make way for the data collection process. The researcher also sought permission from the heads of department and nurse Managers at the outpatient department of the Orthopaedic, Neurosurgery and Physiotherapy department with embossed letters from the Research department (approval letter from ERC introductory letter from the School of Nursing and Midwifery and support letters).

Before the commencements of data collection, the researcher visited the study site to familiarize herself with the nurses by doing self-introduction, a brief explanation of the study and the intention to begin data collection. During the data collection process, the researcher mostly approaches participants by introducing herself and informing participants about the research as well as the desire to include them in the study. Personal explanations were given before the commencement of the interview. Then, those who agree to join the study were provided with an information sheet containing details of all general information regarding the study. Oral consent was sought from participants and afterwards provided with written informed consent before commencing the interview.

The participants were again notified that data collected during the interview were only for academic use and that their experiences of living with low back pain will be solicited through an interview that will last between 30-60 minutes. Participants were educated on their right to withdraw from the study even after informed consent without any risk. They were also be encouraged to feel free in refusing to answer any question they deem sensitive. The right to confidentiality was emphasized as participants identities were anonymised by giving participants identification code as such (P1, P2, P3…) in the analysis where P represented Participants and the numerals denoted the number of participants that took part interviewed (Arifin, 2018). Participants were made aware that

all interview material including transcripts, audiotapes and consent forms would be in the custody of the researcher and made accessible only to the researcher and supervisors for five years. Furthermore, participant's demographic characteristics were separated from these documents and interview proceedings as well as all data related to the study were kept in a password-protected computer, researcher's hard drive and pen drive to ensure safekeeping.

3.14 Summary of Methodology

The utilized a qualitative explorative, descriptive research method to undertake the study. A purposive sampling technique was employed to select participants within the target population. Those who met the inclusion criteria were subsequently enrolled in the study and interviewed after having gone through thorough ethical consideration, methodological rigour as well as consent. Data was finally gathered and analysed.

CHAPTER FOUR

FINDINGS

This chapter reports on the findings of the study, which is dependent on the data obtained by exploring the experiences of patients living with low back pain at the Greater Accra Regional Hospital. The chapter also describes the demographic characteristics of the participants, presents a thematic and content analysis of the findings, and also, a summary of the chapter. The findings were organized based on the constructs existent within the Biopsychosocial Model (Engel, 1977), and the objectives of the research. The themes and sub-themes generated from the findings were supported with verbatim quotes of participants' statements or expressions. Again, to ensure participants' anonymity, identification codes were used to represent each participant.

4.1 Demographic characteristics of participants

The study population comprised thirteen (13) participants recruited from the orthopaedic, physiotherapy and neurosurgical clinic of the study site. Five (5) were men, and Eight (8) were women between the ages of 30 and 62 years. Three (3) of the participants were in their early- thirties, 6 were in their forties, 3 were in their fifties, and one was in her early-sixties. Five of the participants had tertiary education, four (4) had their Master's Degree, one (1) had a PHD, two ended their education at the primary level, and the remaining one (1) had elementary form 4 education. Almost all the participants (12) were Christians except for one (1) who was a Muslim. Out of the thirteen (13) participants, eleven (11) of them were married while two (2) were unmarried.

The occupations of the participants were: Driver (1), Lecturer (1), Accountant (3), Teacher (1), Nurse (1), Business administrator (1), Trader (1), Entrepreneur (1), and Reflexologist (1). Nine of the participants were actively working at the time of the interview. Two (2) participants, one (1) trader and one (1) executive secretary, were entirely out of work due

to their pain. One (1) other participant was still working, although it was inconsistent due to her pain. Five (5) of the participants belonged to the Ewe ethnic group. The remaining seven (7) were from different tribes; Akwapim (1), Akan (1), Krobo (2), Talan (1), Mamprusi, Guan and Fanti (1). All the participants could either speak English or Twi as well as their native language. All the participants were Ghanaians and resided in the Accra Metropolis. All the participants were experiencing low back pain with a duration ranging from 4 months, 7-8 years and 10 years and above. A detailed representation of the biographic profile of participants can be found in Appendix F.

4.2 Organization of themes and sub-theme

Following the data analysis, seven (7) significant themes and twenty-seven (27) sub-themes emerged. Of the seven (7), three (3) of the major themes were consistent with the constructs of the Biopsychosocial Model of pain by Engel (1977). The remaining four (4) significant themes were derived from the analysis of the findings. Additionally, all the major themes had various sub-themes under them, with most of them reflecting the participant's low back pain experience. The themes and sub-themes are presented in table 4.1 below:

Table 4.1 Pain experience among patients living with low back pain: Synthesis of themes and sub-themes

Themes	Subthemes
Pain Characteristics	• Pain origin • Intensity of pain • Location and duration of pain • Quality of low back pain
Pain expression	• Verbal pain expression • Non-verbal pain expression
Pain aggravating Factors	• Body Posture • Sexual activity • Physical stress
Physical pain experiences	• Activity intolerance • Fatigue • Sexual difficulties
Psychological pain experiences	• Anxiety • Belief • Depression • Fear • Helplessness • Inability to concentrate • Mood changes • Negative thoughts • Sleeplessness • Pain meaning
social pain experiences	• Interpersonal relationships • Isolation • Social connections • Work and employment.
Coping methods	• Pharmacological (medication) • Non-pharmacological (prayer, hope in God, ignoring pain, position, support, assistive device, seeking information, cost of treatment, health professional attitude

Source: Fieldwork 2020

4.3 Characteristics of Low Back Pain as Experienced by Participants

In a bid to explore the first objective of the study which is the characteristics of low back pain, one central theme emerged as Characteristics of pain which in turn sought to answer the research question; "What are the characteristics of low back pain? Four (4) sub-themes were identified after the data analysis: Pain origin, location and duration of pain, pain intensity, and Quality of pain.

4.3.1 Pain characteristics

This theme looks at the nature of low back pain in terms of its origin, location and duration, intensity, and quality of pain. The origin of pain describes the cause of the participant's lower back pain. Participants from the study indicated what happened or how they started having their low back pain. The location describes the part of the body where the pain was felt. The pain was mainly at the lower back but radiated to other parts of the body, especially the legs. The duration looks at how long participants have been with low back pain. The study noted that the majority of the participants had experienced their pain for several years, excluding only one participant who had experienced his pain for less than a year.

The participants again mentioned that an episode of low back pain usually lasts between one week to one month and at times two to three days when experienced. In some instances, the pain was always present with varying severity, inconsistent, as well as unpredictable. The quality of pain talks about the sensation felt along the path of pain. The participants used descriptive phrases and associated them with specific events such as being cut with a sod'. Some descriptive phrases used included radiating, burning, sharp, stabbing, piercing, pinching, dull and pulling. The intensity of low back pain among the participants refers to the severity or the magnitude of the pain. Participants used words or descriptors such as 'severe', 'very, very severe', 'very severe', 'very painful', 'unbearable'

and ‘moderate’ to label the severity of the pain. Some participants self-rated their pain between 7 - 8 as most severe and increased pain on a scale of 0 to 10

4.3.2 Pain origin

This theme describes the cause of the participant’s lower back pain. The participants indicated what happened or how they started having low back pain. They all reported different reasons that brought about the pain they were experiencing, and they included a fall, previous sporting activities, road traffic accident, work activities and prolonged sitting during academic work. Others could not tell what was causing their pain and hence, connected it to spiritual factors.

In particular, some participants got their back problems from various trauma such as a fall during fetching of water and falls due to previous sporting activities.

> *“…I will say that this my lower back pain started somewhere when I was in high school, where we lived in Accra, we had issues with water so in one of the events of carrying water, I fell and the bucket of water hit my back…” (P-1)*

> *“You just wake up one time, and you realize that you are experiencing some pain, and you keep asking yourself what did I do, but I use to be a very active sportsperson, I was doing the long jump, triple jump, high jump, hockey, basketball, and volley so it may be a combination of those active sports work in the past and something else I do not know” (P-11)*

> *“Yeah I am very athletic, and I use to fall a lot when I was little, yes I do a lot of climbing and lots of hiking, yeah but the Doctors are saying that is not what is causing the pain but if that is not what is causing it, at least it is a contributing factor to it. They are saying it is a nerve problem” (P-6)*

Another participant had his pain due to a road traffic accident and had this to say:

> *“Yeah, I had an accident, and it is through the accident that I got the back pain. I was travelling from Damongo to Tamale, and on the way, my tyre got burst, and the car summersault for three times and landed” (P-3)*

One participant attributed the root cause of the back pain to her work and stated that:

> *“Well, I will say that right now it is an effect from my work that I have been doing for quite some time now. Although I have had a history of the back problem from infancy, I bend and stand a lot during work…” (P-4)*

One participant also ascribed his back pain to prolonged sitting during his work as an accountant and during postgraduate academic work.

> *"I was doing my masters and a professional course combined, and so I sit down for long hours to learn, even to the extent that getting up to eat at work was a problem for me because as for accountants, we sit for long. So that was when I started having this low back pain" (P-5)*

However, some participants articulated that they had no idea about the cause of their pain:

> *"This my back pain, I do not know how it came about. I just started feeling the backache, so I did not get any accident, I do not remember having an accident, so I do not know. I just started feeling the pain" (P-7)*

> *"Hmm, exactly how I got it [pain], I cannot explain. I cannot say that I fell or something happened, it just started happening" (P-8)*

> *"…I really cannot tell how it happened. I just woke up one morning and realized that I was feeling an uncomfortable condition around my waist and lower back and I was hoping that it will go, but it has remained with me till now…" (P-9)*

Two of the participants attributed the cause of their pain to spiritual factors:

> *"…apart from seeing the doctor, I went to churches because I did not understand why I should have this sudden pain. I just got a new job so I thought somebody might have put something on my chair so I was doing prayer upon prayer, fasting upon fasting. It was not easy…" (P-9)*

> *"…Hmm I do not even know what to say, at times I am forced to think that there is something spiritual behind it because I do not know why it just came so I ask myself "wherefrom this so at times I think it spiritual because I do not understand it…" (P-12)*

4.3.3 Location and Duration of low back pain

The location of the pain described by the participant's talks about where they experienced the pain. At the same time, the duration looks at how long participants had experienced their pain and how long an episode of pain lasted when experienced by participants.

Almost all the participants experienced pain in the lower back:

> *"You know, right from my lower back…the pain is there" (P-9)*

> *"I just woke up one day, and I was feeling pains at my back…* [Using fingers at the back to show where the pain is] *at the lower part, yeah, that place" (P-12)*

> *"…I feel the pain in between the straight spine especially the left-back* [Gets up from the chair and turns back to show the site of pain] *and centres mostly at the lower back more yeah that is where I feel it…" (P-7)*

Participants also explained how long they had been with back pain. The duration of the pain was stated as four months, seven-eight years and ten years and above:

> *"You know the accident happened on 27th of November, so it is four months now but am still feeling the pain" (P-3)*

> *"It will be more than a decade because my first daughter is ten years and I had this pain when I was working, so it is even more than ten years" (P-8)*

> *"I have had this low back pain for like six to seven years, and it went away completely, but two years later, I saw symptoms again, yes." (P-9)*

Participants also described how long an episode of pain lasted, which was almost similar. They indicated that their pain usually lasted between one week to one month and at times two (2) to three (3) days when they experience it:

> *"Well it depends, the pain could stay up to a week and sometimes it takes two to three days to go away. So you can imagine what I go through to be with this pain sometimes for a whole week, it is not easy" (P-1)*

> *"Earlier on when the pain comes, it last for one month and other times it lasts for one week at most" (P-9)*

> *"It depends, sometimes the pain could take a whole month." (P-11)*

Aside from describing the duration of the pain, nearly all the participants expressed that their pain was inconsistent and in some cases, unpredictable:

> *"Oh the pain goes down a bit and then you are free and then a moment later this pain resurfaces again…the pain just comes…you cannot predetermine that oh the pain is coming so let me do something…" (P-11)*

> *"Oh my pain, it comes suddenly, and it is on and off. Today it is there, tomorrow it goes down and comes up again yes that is it" (P-5)*

> *"It [pain]comes down small then it goes up again so it is on and off…you are just there then it comes" (P-9)*

4.3.4 Quality of pain

The quality of pain, as experienced by participants, describes the sensation felt along the path of pain. The pain was experienced in varied ways among the participants, and they described the pain using descriptive phrases such as radiating, burning, aching, sharp, stabbing, pinching, piercing, dull, pulling, and numb:

> *"…I slept in the morning, and when I was waking up from bed, I felt this sharp pain and burning sensation at my lower back" (P-10)*

> *"… I begin to feel that pinching pain at my lower back and other times I feel this pulling pain and numbness in my leg…" (P-6)*

> *"…I do not know if I should say it is sharp…it is a mixture of the sharp, stabbing and piercing kind of…so I do not know, but that is the pain" (P-4)*

Among the participants, two mentioned that the painful sensation felt was dull and aching:

> *"I can say that my pain is dull because my pain is not that serious" (P-5)*

> *"Yeah my pain is aching kind of, I do not know if you get me, but it aches you" (P-9)*

The majority of the participants narrated that their pain was not localised but radiated to certain parts of their bodies such as the legs and neck:

> *"… it [pain] generates through my right leg especially in the hip, at times, bilateral but most often it is the right hip that I get the pain seriously" (P-2)*

> *"…It [pain] transcends to my neck then down to my lower back and then it transcends also to my right leg especially the right thigh" (P-6)*

> *"You know, hmm as I said, it starts from my lower back, and it starts spreading…it starts spreading to my legs especially the left one…" (P-4)*

On the contrary, other participants did not experience radiating pain:

> *"My pain is at only one place, just below my waist, that is my lower back, and it does not move around yeah." (P-5)*

> *"It [pain] does not radiate yes, it is at my lower back…it does not radiate, mine is localised." (P-11)*

4.3.5 Intensity of low back pain

The intensity of low back pain among the participants describes the severity or the magnitude of the pain. The participants described the severity of their pain in many different ways as severe, very severe, and unbearable. Other participants rated the severity of their pain on a scale of 7 to 8. Participants mentioned that the pain mostly intensifies during the night when they are asleep and described how the intensity of the pain leads to headaches and an increase in their blood pressure.

> *"I started having severe backache, which was not easy at all. At times the pain was so severe that it could come up to my neck" ((P-1)*

> *"…I find it difficult to find the word to express the extent of my pain but umm, unfortunately, my pain is very severe" (P-11)*

> *"Eeei it [pain] is unbearable…I am not just able to bear it at all…" (P-13)*

Furthermore, other participants described the severity of their pain by rating it on a scale of 7 to 8, respectively:

> *"I will rate it [Pain] at 7, and sometimes I will give it 8 because it is very severe…it becomes uncomfortable…like "mad," very, very painful, very bad" (P-6)*

> *"You know, in the beginning, it [pain] was10 yeah, I am rating it [pain] because it was very, very severe but as I said earlier on, it is now 7" (P-3)*

One participant mentioned that his pain intensifies in the night especially when people are asleep;

> *"…When people are asleep in the night that is where the pain intensifies, and you are not able to sleep, and not able to sit nor get up" (P-9)*

Two of the participants gave an account of how the intensity or severity of their pain resulted in physiological effects such as fainting, headaches and an increase in blood pressure:

"…Sometimes when I am feeling the pain, my blood pressure goes up yes…" (P-13)

"…Then I start having headaches to the extent that sometimes I even collapse because the pain makes me feel heaviness at the back of my head" (P-4)

4.4 Pain expression

The second objective of the study explored Pain expression in patients with low back pain, and after the data analysis, the study revealed a major theme which was referred to as Pain expression along with two sub-themes; verbal and non-verbal pain expression. This sub-theme revealed how participants behaved when they were in pain. The verbal expression of pain included crying, screaming, and complaining. In contrast, for the non-verbal pain expressions, participants reported refusing to communicate, a facial expression such as frowning, stretching and tapping the site of pain. The men in this study were observed to accommodate their pain as compared to women.

4.4.1 Verbal pain expression

Some participants with low back pain verbalized their pain by crying, screaming and complaining.

Two of the participants talked about how they cried when in pain:

"…Sometimes it is not like I am forcing myself to cry, but l will be talking to you, and the tears will be coming [Bowed head and cleans face] *my body is not able to take the pain any longer so tears will be flowing" (P-4)*

"Yeah at times when the pain becomes very severe I cry, I cry, I cry a lot" (P-12)

Other participants screamed and complained when in pain:

"When I am in so much pain, I scream. I will pick a pillow and you know…like I put my head down [Puts head down and squeeze fingers] *and squeeze the pillow then my mummy will be like are you okay…" (P-6)*

"Oh no for me I do not cry, but I will be complaining it is paining me, it is paining me…" (P-7)

4.4.2 Non-verbal pain expression

Some of the critical non-verbal ways in which participants expressed pain included refusing to communicate, a facial expression such as frowning, stretching, and tapping the site of pain.

A few of the participants, mainly the men, refused to talk about their pain by keeping it to themselves:

> *"I am the type that I do not want to be complaining, complaining and complaining that I have this pain, so I keep my pain and pretend that I am okay" (P-2)*
>
> *"Oh complain to who, I do not complain because the pain is within me, so I have to handle myself to accommodate it [pain], and the better way to do this is taking my regular medication" (P-3)*
>
> *"... so I do not talk... you see me quiet" (P-9)*

However, the male participants who recounted that they did not like complaining about their pain gave their reasons as not wanting to be a burden to the family as a man, showing that one is a man and that complaining to the family does not bring solutions.

> *"If you are a man and you keep complaining to your wife, dear my back is paining me, tomorrow my back...you are in pain, you are pain, you get your wife too worried okay and I do not want to create the situation that as a family everybody will be worried because of me" (P-2)*
>
> *"...My wife, there is nothing she can do so the only thing is to accommodate the pain and be careful about how not to get an effect more than the one you are having" (P-3)*
>
> *"... I have always wanted to be a man, and my wife will tell me that, you when you are suffering you do not want people to know. So unless it is up to the point that I can no longer bear the pain" (P-9)*

One of the male participants among those who refused to talk about their pain reported that because he does not show his pain, he ended up describing himself to friends as "a walking pain."

"The last time I was even telling friends that "I am a walking pain" because the pain is there, but I do not show it on my face, so people do not know that I am going through such pain" (P- 2)

A few of the participants also mentioned non-verbal ways such as tapping the site of pain, facial expression, frowning and stretching:

"Eeei mostly you will see it on my face because it is difficult for me to hide it [pain] and then I will be tapping the place [taps thigh] …" (P-13)

"…When the pain is so severe, I frown such that even sometimes when my daughter is calling me, I turn my face because I do not want her to see the level of pain from the expression on my face, so I turn away from her as if I am asleep and I will hear her saying mummy are you asleep…" (P-10)

"…Yes but when it [pain] is severe before you can see me stretching and sometimes bending forward and all that" (P-7)

4.5 Pain aggravating Factors

The third objective of the study aimed to explore the pain aggravating factors among participants experiencing low back pain. The findings resulted in obtaining three significant sub-themes which assisted in achieving the above objective. These themes give details on how participants recounted certain factors that increased the intensity of their low back pain. From the participant's perspective, these aggravating factors are activities they engage in while they go about their daily responsibilities. These activities they reported caused a strain or tension on their backs and aggravated their low back pain. Participants expressed how they got physically stressed during their home and work activities, how their body posture such as bending, walking, standing, sleeping, aggravated their pain and finally, they talked about how sexual activities also aggravated the pain experience. Further, participants mentioned that lying flat on their back, resting, exercising, using assistive devices and taking medication helped in relieving their pain. The three sub-themes obtained were Physical stress, Body posture, and Sexual activity.

4.5.1 Physical stress

This theme describes the strain, pressure, and tension exerted on participant's low back due to the demands placed on them through the nature of their daily activities. Physical stress was one of the aggravating factors reported by participants.

> *"You know we live in a society where they open the tap today, the next week before they will open again, and mostly the barrels and containers are empty, and the water comes at dawn, so I get up and fill the containers, and I live in the house with my mum and aunty, and I do not expect them to do that so by the time I carry the bucket and pour, the pain is just terrible, it is terrible, and I end up feeling stressed with the strain at your back" (P-6)*

> *"Mostly my work takes about an hour on one person, so if I work on two or three people continuously or overwork myself, I feel so stressed up, and the pressure on my back increases the pain" (P-4)*

> *"You know I am somebody who likes to do things myself, so everything I do in the house, particularly when I stand a lot during cooking and I carry many things in the house, almost everything so by the time I am done, I become so stressed up, and I feel the pains at my back" (P-8)*

4.5.2 Body posture

Body posture refers to the positions assumed by participants that increase their pains, and they include standing, walking, prolonged sitting, and bending.

A participant indicated that she could not weed and wash clothes because too much bending increases her pain:

> *"I could weed and wash clothes you know, but I do not do it these days because of the excessive bending that increases my back pain" (P-1)*

Other participants mentioned that prolonged sitting, standing, or bending increases their low back pain:

> *"When I sit for long or when I bend, the pain triggers off" (P-2)*

> *"When I am standing cooking, standing for a long time cooking and sometimes when I am sitting working and other times too when I bend, I feel the pain more" (P-4)*

Additionally, some participants also identified that walking aggravates their low back pain:

> *"You know when I have to walk, I walk slowly, slowly because as I keep walking I feel the pain and if I do any brisk walking I get muscle pull" (P-2)*

> *"I used to be a swift walker and can walk for distance. If I am walking with you, you have to run and come to meet me, but since the injury came, I rather fall back. If we are in a group and we are walking, I realised the group would start, and I will be left behind because as soon as I walk fast or for long, I feel the pain seriously" (P-10)*

> *"…and also when I walk, I cannot help myself because the pain becomes so severe" (P-12)*

A few of the participants again testified that the wrong sleeping position aggravates their low back pain:

> *"When I do not sleep well, or in a good position I feel the pains" (P-3)*

> *"Sometimes I do not sleep properly, and when I am getting up from the bed, and I do not get up well, I feel the pain" (P-9)*

> *"There are times that when I do not sleep in a proper position, I wake up and I feel the pains" (P-2)*

Aside from the above mentioned aggravating activities, participants also spoke about a few other activities such as exercising, playing volleyball and sneezing aggravated their pain.

Two participants talked about how exercising aggravated their low back pain:

> *"I started walking as an exercise, but you know I have to start slowly, slowly because as I keep walking, I feel the pain. And I thought even this walking or exercise could help, but it worsens the pain instead …" (P-2)*

> *"Any time I just try to do a bit of an exercise the pain becomes very severe, like very painful..." (P-6)*

Others stated that athletic activity, like volleyball and sneezing, aggravated their low back pain:

> *"I am very athletic, yes! I used to play volley, but I had to restrict all those activities because it worsens the pain" (P-1)*

> *"…then when I sneeze it goes straight to the spine, the pain goes straight to your lower back, and then it gets through the back of your legs and hips" (P-2)*

4.5.3 Sexual activity

This theme explains how the manoeuvres in sexual activities increased participants' low back pain. Many of the participants narrated that sexual activities worsened their low back pain:

> *"…and another thing that brings on the pain is sex. I am married, and even sometimes when having a sexual relationship with my husband, we have to look for a good position because if I turn this way* [bends over to the left and right]*, it is painful, if I turn that way, it is painful to the point that it even quenches the fire" (P-10)*

> *"At times that one* [sex] *as well triggers the pain, so you become careful" (P-2)*

> *"The back pain is already making you not to feel strong and this [sex] one too will come and add up to cause you more pain" (P-13)*

A section of the participants, however, could not connect their pain with any aggravating factor. According to them, the pain ensued or aggravated without any provocation:

> *"My pain just comes; you cannot pre-determine what you do before the pain comes. It just comes, and it is not as if you engage in any physical activity to bring on the pain, no, it comes when it wants to come" (P-11)*

> *"At times I would not do anything but the pain will just come" (P-12)*

> *"Yeah, at times you are just there, and you can just start feeling the pain" (P-2)*

Aside from the participant's report on the pain aggravating factors, they mentioned pain-relieving factors, which are some things that they do to help relieve them of their pains.

Majority of the participants indicated that lying flat on their backs, resting, exercising, and using assistive devices helps in relieving their pains.

> *"Oh, I just lie down flat on my back. I do not do anything" (P-7)*
>
> *"I have to just go to the room and lie down flat on my back for 30 minutes before I can get up and do something" (P-6)*
>
> *"I lie down flat on my back and rub some ointment at my back pain to calm down the pain" (P-13)*

Again, some participants also mentioned rest as a measure they take to relieve their pain:

> *"Oh well, normally I try to rest" (P-1)*
>
> *"I just lie down to relax until I get better." (P-12)*
>
> *"...If I can, I rest to help bring down the pain" (P-11)*

Furthermore, others also reported that doing exercises help in relieving their pain;

> *"Hmm, sometimes I have to lie down on the hard floor to do stretching exercises" (P-4)*
>
> *"Okay, when it happens like that I try to do some exercises, yes some stretching exercise" (P-13)*
>
> *"...And I do small, small, exercises…" (P-5)*

Others also narrated that they use gadgets like a corset to support their back to help in relieving the pains:

> *"... I was advised at the hospital, to get lumbar support, so I got one which I use" (P-10)*
>
> *"I have the waist belt, and that is what I am wearing now to support my back…" (P-6)*

Two participants mentioned that they sit or lie down quietly, which helps in relieving their back pain:

> *"I sit down quietly or lie down quietly to help bring down the pain…" (P-9)*
>
> *"...Sometimes, I will just be sitting down or lying down quietly" (P-12)*

Nearly all the participants mentioned taking their pain medication to help relieve their pain:

> *"…When I do all these, and the pain is not going, I am forced to take painkillers" (P-12)*
>
> *"…And you know of course if the pain becomes very severe I take my pain medication (P-1)*
>
> *"But it is like there is not much you can do if you do not take medicine because even after exercising you still feel the pains and you have to take medicine, so it is not easy" (P-8)*

4.6 Physical Pain Experience

In tackling the fourth objective of the study, which is to explore the physical pain experience in patients suffering from low back pain, key sub-themes were generated from the data analysis to help explain the participants' pain experience. This theme explains the physical ordeal that participants come across daily as they attempt to keep up with their daily routines and carry out household tasks in their journey of life with low back pains. All the participants gave an account of how their back pains hindered them from engaging in certain routine daily living activities, including bathing, washing, walking amid others, and how they ended up stopping or giving up on certain activities they formally enjoyed. Three sub-themes were derived, and they are explained below; activity intolerance, fatigue, and sexual difficulties.

4.6.1 Activity intolerance

This theme explains the participant's inability to either endure or complete an ordinary or a desired daily activity. Almost all the participants lamented on how the pain interfered with one activity or the other such as teaching, cooking and walking, bathing, washing, climbing stairs, lifting, and carrying or playing with their children:

"As you know, I am a teacher, and teaching involves standing and moving, but because of the pain, I am unable to stand for long or walk through the class during lectures, so I have to sit on a chair which I am not used to, and it makes it difficult for me to do demonstrations where needed…" (P-1)

"…And I cook, but, when I stand for long during cooking then the pain comes so severely, so I sit down once in a while, then I get up. Even when I go to the market these days, I am unable to walk for long, so I always have to look for a place to sit because if I walk for long, I will always come back with severe pains" (P-12)

"I am not able to walk perfectly, you know, because of the pain, I cannot walk the normal walking that I used to do. Yeah, the walking is difficult for me, and I cannot also stand for long because that one too, another problem, huh" (P-3)

Equally, participants reiterated that their low back pain changed their way of walking and reduced their pace in walking:

"Yes, sometimes it [pain] alters your posture because you have to position yourself in a way that will reduce the pain, so it changes your way of walking. You become slow when walking." (P-1)

"Yeah, the pain affects my movement, when I am walking, I go sideways. My walking is not straight, and I do not know whether you saw me when I was coming in, I got stuck so I have so walk slowly, slowly otherwise I will fall" (P-13)

"You know when I have to walk, I start slowly because as I keep walking, I feel the pain, and if I do any brisk walking I get a muscle pull so I have walk slowly…" (P-2)

A few of the participants bemoaned that washing, bathing, and climbing became problematic for them due to their low back pains, for example:

"When the pain comes, I cannot even wash myself down; it is my wife who ***h****as been doing that for me." (P-9)*

"…And climbing stairs is a problem for me so whenever I have an appointment anywhere, I try to find out whether there is a staircase at the place, it is like this is how I now live and anytime I try to climb the stairs, I always come back with worsened pain and swelling in my thigh" (P-10)

"Yes as for the washing I try to wash sometimes, but not always because sometimes the pain becomes unbearable because you sit, you bend and that increase the pain…" (P-13)

Several of the participants explained that their low back pain culminated in their inability to lift a weight:

> *"No initially I was able to lift, but since the pain came I am unable to lift anything because if I try to lift something, the pain comes severely, so my husband and a certain girl has been helping" (P-13)*

> *"Now, I cannot lift anything. At first, I could lift anything I want to lift, but because of the pain, I cannot lift. Anytime I try to lift, the pain becomes serious, so the doctor advised me not to lift anything too heavy" (P-12)*

> *"No, not at all, I am not able to lift things, especially heavy things" (P-4)*

A few of the participants expressed their grief over not being able even to carry or play with their children:

> *"...Sometimes, the pain makes it difficult even to help them[children] with their normal activities, and you know boys, sometimes they want you to play with them, but you cannot do that. Then it leaves you wondering, what is all this and my younger one does not understand why mummy is unable to do that. So it is not a good thing to experience" (P-1)*

> *"...You know I am in the children's ministry, and I teach the very small children, and we are always doing action songs, and we have to jump…this person and that person will be crying, and he or she wants to be carried, and sometimes you want to do it, but you can't so the pain makes it difficult" (P-6)*

> *"...when your child wants to you to lift him or her up sometimes it is difficult, sometimes you have to wake your child up from bed, she will be resisting, and you have to raise her, but it is difficult you see" (P-11)*

Conversely, a participant reported that he was able to lift without any difficulty despite his low back pain:

> *"At home I lift things, but I do not feel anything or any pain." (P-5)*

A majority of the participants shared their experiences on how they had to give up on or stop certain activities they formerly enjoyed, which included travelling, driving, playing volleyball and going to the gym, riding a bicycle, swimming, weeding, and washing clothes:

"Travelling, I enjoy travelling a lot, but now it is difficult for me because you cannot sit for long, you cannot stand for long" (P-8)

"You know, I like to ride a bicycle, but now I am unable to do it because I can fall and worsen the pains. I also love swimming, but I cannot do it anymore because I am unable to move my arms and legs the way I used to" (P-4)

"At first, I could weed and wash clothes, but I do not do that anymore because of the excessive bending…" (P-1)

Also, some participants discussed how they could not drive, play volleyball and go to the gym:

"I cannot drive, as for driving, I cannot drive, and it is because of this back pain that driving has become lazy for me now. I do not feel like driving anymore. (P-7)

"… I stopped playing volleyball because I have to jump in doing this, I do not do it because you can just land wrongly which might affect your back" (P-2)

"…you know I told you I was a weighty person, so I use to go to the gym, but I have to stop the gym because I did not even want to aggravate the pain" (P-10)

4.6.2 Fatigue

This theme explains the feeling of extreme tiredness or exhaustion experienced as participants go about their daily routine. Quite a lot of the participants shared how they felt tired when they were involved in any walking activity due to the low back pain.

"At times when I start to walk, before I take the first…say 30 or 40 steps, it is not easy, you get tired" (P-2)

"When you are in pain, you are not able to walk or move as fast as you want because you get easily tired" (P-11)

"…And because of the pain I get tired after walking around in the market" (P-12)

For other participants, they indicated that they got quickly tired when they were involved in various activities at work:

> *"…You know I work with the government and when you need money, you have to go up and down so sometimes when I am sitting in the car going up and down with the pain, I get tired" (P-7)*

> *"…and I get easily tired due to pain when I work on two or three client at work, so when I start feeling like that, I go to relax in one of our conference room" (P-4)*

> *"… And because of the pain when you are even at work the small work then you are tired yeah" (P-6)*

4.6.3 Sexual activity

This theme describes how low back pain interfered or prevented participants from engaging or obtaining satisfaction during sexual relations with their partners. A significant number of the participants shared their experiences on how they were not able to endure or lost the feeling or interest in sexual activities due to the low back pain:

> *"…Sometimes when I am having sexual relation with my husband, the pain quenches the fire and sometimes it is so much that we have to say let leave it for another day, but I see on my husband's face that he is discouraged, it is like he feels disappointed and feels bad about it…"* [Eyes became red while talking about this experience] *(P-10)*

> *"Yes, of course, that sexual feeling I do not have anymore. I am not happy because of the pain I am going through, so it makes me not feel like having sex. I do not feel it again. The pain makes you not to feel strong enough to have sex. My husband, sometimes he understands, and others times too he complains"(P-13)*

> *"…Sometimes my waist will be paining me, and you know it is always not an easy task to have sex so sometimes I will not go there, I will tell my husband please today I will not do, my back is paining me, I will not do so that one[sex]I have minimized it" (P-7)*

Some participants, however, mentioned that they did not have any problem engaging in sexual activities:

> *"Fortunately my pain does not interfere with my sex life if I want to make love to my partner it [pain] does not affect me because over the years I have built myself to be able to manage things better" (P-11)*

> *"No, it [pain] has not affected my sexual life, I can have sex whenever I want without any problem" (P-5)*

> *"Hmm, my wife is someone who can stay for a year without asking for sex, so I tell people God loves me so much, and because my wife does not ask for too much sex, it gives me much relief, so my back pain never affects my sexual life" (P-9)*

One participant equally pointed out that he does not have much problem engaging in sexual activities but has reduced the number of encounters with his wife:

> *"Well, what happens is that when the pain at times becomes severe, I do not feel like having anything to do with my wife, but seriously it has not affected me much just that maybe the number of times I have to meet my wife have reduced, and she understands" (P-2)*

4.7 Psychological Pain Experience

In the quest to explore the fifth objective, psychological pain experience, eight (9) sub-themes were identified. The theme discusses the psychological impact of low back pain experienced by the participants. The pain episodes in low back pain place several psychological challenges on the participants and are addressed under the following sub-themes: anxiety, fear, depression, helplessness, inability to concentrate, other mood changes, negative thought, sleeplessness, beliefs and meaning of pain.

4.7.1 Anxiety

Participants related their nervousness to how their pain came and whether their pain will go, and if so, when? Moreover, their uneasiness resulting from the low back pain was also about their inability to do what they wanted to do. For example:

"I was anxious to find out what happened. I searched through my mind to find out what I did wrong or what happened. So you go into your mind to find out how it all began, and you are not able to come out with anything, no" (P-9)

"I am anxious because I am having a pain that I do not know how it came and it is like every day you have to be careful about everything you are doing because the least thing, the pain will come" (P-12)

Regarding whether the pain will subside or continue, three of the participants were uncertain as to whether the pain will go or stay:

"…I look at myself and I ask myself will this pain go or it will continue for the rest of my life…and the fact that people are doubting you and others are thinking that you are lazy makes me ask myself so when will this end." (P-10)

"Yeah, I was anxious and the anxiety, you know, makes you keep on asking yourself so when will this pain be over, because you are anxious to know if you will wake up one day and you cannot wake up, that is your anxiety" (P-11)

"Yes, of course, this kind of pain makes you anxious, and you are wondering what at all is this that you have to wake up every day with pain and you are anxious about when this pain will end for you to leave your normal life." (P-13)

A participant lamented about how the low back pain makes it challenging to perform the desired activity:

"Maybe you want to do something, and this pain is there, so sometimes I become anxious like what is this, I want it to go, and I am not just myself when it happens that way" (P-7)

Two participants shared a contrary view about the nervousness shared by the others; instead, they thought of their pain as typical:

"No, I feel it is normal, aha, I feel it is normal, so I am not anxious" (P-5)

"Apart from other things, I am not anxious because once you are growing, you are imperfect and things like this will happen" (P-8)

4.7.2 Depression

This theme describes how participants became dejected due to how the low back pain affected their daily lives in connection with performing activities of daily living:

> *"Yes you feel depressed, and you become anguished because you want to do certain things that you know you could do in a twinkle of an eye, and then you are not able to do it …, and that makes you frustrated." (P-1)*

> *"Yeah, at times you get depressed because you are worried and you ask yourself why me, what is happening, where is this pain coming from" (P-2)*

> *"Yes, sometimes I become depressed, and every day I complain that why is this pain always there, and you find yourself not being able to do some things… (P-7)*

Three of the participants shared that they were not depressed about their low back pain:

> *"I have never felt depressed about the pain because of the way I see the pain, so I do not make it get to me" (P-6)*

> *"Depressed, no actually I do not get depressed because of the pain" (P-9)*

One participant had the feeling that the pain was expected because the mother had the same experience in her life:

> *"Oh no, no, no, you know I have the belief that the pain is natural, I have that belief, so I do not get depressed because I know that my mum had it and it remained with her for so long, so I take it cool" (P-8)*

Another participant expressed that he did not feel depressed but was rather stressed when bored with too much conversation:

> *"Yeah, I do not get depressed…the only thing I feel is l do not like people disturbing me with too much talking because the more I talk, the more I think about other things and it makes me stressed." (P-3)*

4.7.3 Fear

Fear is one of the problems that ensued from the participants' narrative, and these were fear of death, fear of the outcome of pain, and fear of not being able to work, and fear due to the use of medical jargon.

A participant narrated that the low back pain made her afraid that she was going to die and leave her children one day:

> *"Yes, a lot of fears, sometimes when the pain comes, you begin to fear whether this could take you to your grave, and when I look at my kids and how young they are, it is terrifying because sometimes the pain will make you feel like you are dying, I do not know if you understand that you are dying…" (P-1)*

Some participants asserted that they were dreadful there that the low back pain was going to paralyzed them one day:

> *"Yeah, I have some fears that is this pain going to put me down one day or not and am I going to be wheelchaired later in my life or what?" (P-2)*

> *"…I fear, and I ask myself, is this pain going to put me in a wheelchair one day and all that yeah" (P-4)*

> *"Hmmm, the fear is one problem that I have, I fear that the pain will put me down one day and I will not be able to walk again" (P-13)*

Another participant related her dread to medical jargons used by some physicians whenever she went to see them:

> *"Yes I do have some fears once in a while, especially when I go to see the medical doctors, you know they are always mentioning huge names and things and that puts fear in you" (P-6)*

However, two of the participants narrated that their low back pain did not scare them:

> *"Once a while the pain disrupts your normal day to day activities, and if the pain is very excruciating, you might want to lie down and if I am at work, where do I lie down, Aha, so that is it, but I have not been afraid of this pain doing something to me or putting down completely" (P-11)*

> *"You know, in the Bible, we have 366 words fear not in the Bible, so I take every day one, so I do not fear because of this pain, fear is not part of me" (P-3)*

Again, a participant feared that her low back pain was going to incapacitate her in the area of her work:

> *"Oh yes, sometimes I am afraid, I ask myself, is this pain going to stop me from doing the work that I love doing" (P-4)*

4.7.4 Other mood changes

This sub-theme emphasises the other changes in the participant's mood as they experience the pain. Several participants expressed that they were worried and sad with the pain experience and related it to their inability to carry out certain activities and some exacerbating factors:

> *"I feel sad, and I feel worried at times, and I start crying because when I want to do something I am unable to do it, I cannot do what I feel like doing, so every day I am worried that I cannot do all the things I want to do" (P-12)*

> *"I only become worried and sad if I have to do something for myself and I am unable to do it like something I am supposed to do, that makes me sad, and I only say to myself why can't I do this thing for myself because I do not want to bother somebody to be doing too much for me" (P-3)*

> *"Oh, yes, I feel sad and worried because I cannot do much. You know I am that type that likes working, but now I cannot do much as I used to, so sometimes I feel sad and worried, and like I said earlier, it drains your energy so you cannot do much" (P-4)*

One participant was worried and sad because she could not even meet deadlines for her School assignments:

> *"You know, I told you I am a student, sometimes when I have to do my work, I am in so much pain I will leave it and sleep, not that I am sleeping a comfortable sleep but lying down in pain, it gets me worried and sad because there are deadlines to meet and I am unable to meet them" (P-10)*

One participant felt worried and sad over the fact that even common sneezing could trigger his low back pain:

"When you get this mix up of complications such that even just sneezing can cause you pain, then at that instance you become sad, you become worried that what is happening to me, what is this okay. At times you become sad, we are human beings, at times the whole day you become worried" (P-2)

On the contrary, one participant was of the view that he did not worry or get sad because there is a solution to the low back pain:

"Oh no, I see it to be normal, so I do not get sad or worried, I mean I do not know why I should be sad or worried about the pain when there is a solution or something I can do about it" (P-5)

4.7.5 Anger

This theme refers to the annoyance or displeasure felt by participants due to their low back pain. Participants either get annoyed with themselves or with the pain, while others also felt irritated:

A section of the participants discussed how they developed anger towards the pain;

"Oh yeah, at times you get angry not at yourself but the whole pain because of how uncomfortable it makes you feel and during those periods, it becomes difficult for you to concentrate because all your attention is on the pain" (P-1)

"As for the pain, you will be angry at it. What at all is this pain, what at all is this pain, when you are sick, you get angry at the sickness because you wish you are well, and this pain is not there. So you feel irritated more often when they ask you questions during the pain" (P-7)

Other participants also described that they became annoyed with themselves due to their low back pain:

"No, I was not taking it out on other people around, I was always angry with myself and then the pain because what at all is this kind of pain that will not let you rest" (P-9)

"I get angry with myself when I am supposed to do something for myself, and I am not able to do it, yeah, so it makes me bored. I am not able to drive, because of this pain, I am in one place. Also, I am not able to go to work, and these things you know gets me bored." (P-3)

A few of the participants felt irritated because of the presence of their low back pain:

> *"Yes, I do get irritated most often because I will be feeling sleepy, I want to sleep and I cannot sleep. It is not pleasant at all, and you find yourself being irritated at everything, you know" (P-4)*

> *"I do have mood changes, I become irritated, and everything just upsets me" (P-6)*

4.7.6 Helplessness

As part of the narrative, participants elucidated how stranded they felt when they could not carry out one activity or the other. Quite a lot of the participants mentioned that they felt helpless when they were unable to lift, did not know what to do, and could not do what they wanted:

> *"…So if it were not for the back pain, I would have been up and about, so all these things I cannot lift, they all make you feel helpless, sometimes even turning in bed I have to use certain acrobatics before I can turn from right to left" (P-10)*

> *"Yeah, once in a while you may feel helpless, I mean during the early stages, I felt helpless because you do not know what to do and you are not able to do what you want to do, but now it is better…" (P-11)*

> *"Yes, I feel helpless because the thing that the pain has affected mostly for me is how to lift something or maybe there is something that must be lifted, and you cannot do it, and you are just sitting down looking for somebody to come and help you. That is the thing that is causing me a lot" (P-12)*

One participant had a different opinion that she did not feel helpless because she has help and able to seek medical help when the need arises:

> *"Helpless, I would say no, because most of the times I am blessed, I have support, so I will not say I feel helpless, and I can seek for medical care when I think it is getting out of hand, so I will not say that I am helpless" (P-1)*

4.7.7 Inability to concentrate

The inability to concentrate was also one of the challenges faced by participants due to the pain experience. Almost all the participants spoke of how they were unable to concentrate when in pain:

"Yes, I cannot concentrate because sometimes the pain is worse on me especially the days that the pain last, I am unable to concentrate, so if I am teaching and that happens, I quickly end the teaching…" (P-1)

"Most of the time, I am unable to concentrate when the pain is there. like mine school work when I am in pain, how can I concentrate so I just close my computer, close my books and go to lie down and if there are family problems, I just lock my mind on all of those things because when I am suffering nobody else is suffering, then I lie down" (P-10)

"Oh yes, it affects my concentration a lot. I cannot concentrate when I want to do something because when you are in pain, how can you concentrate. All your mind is on the pain. Even when I am at church and the pain starts, I am not able to concentrate on anything that is going on there" (P-12)

A few of the participants expressed a different view about the fact that their back pain did not disturb their ability to concentrate:

"Actually, I am careful about my pains, so once I become careful about the pain I do not lose my concentration on anything yeah" (P-3)

"No, I try as much as possible not to allow the pain to disturb me on anything I have to do, yeah. It happens only occasionally when I am watching the TV, and the pain is there, but apart from that I can concentrate" (P-5)

"You see my pain is not that severe, so it does not disturb my concentration only that it makes me restless, you see restless" (P-7)

4.7.8 Sleeplessness

The inability to sleep was also a chief complaint given by the participants. Virtually all the participants talked about how their low back pain affected their sleep:

"Yes, when the pain comes, sometimes you barely sleep because it wakes you up at odd hours and you realize that you cannot sleep again till daybreak; meanwhile you have to go to work the next day, so it is bothersome" (P-1)

"So in fact now my sleep does not go deep because of the pain, sometimes when I am just like falling into sleep, the pain will just wake me up" (P-10)

"Back pains always affect our sleep. Let me put it that way, It is not easy because sometimes you know when you are deeply asleep and enjoying your sleep, maybe the body has not positioned itself well then your posture will aggravate the pain and deep in your sleep, you feel that sharp pain and you are up, it is not easy" (P-4)

Some participants explained that they were unable to sleep without taking pain medications:

> *Yes, I cannot sleep soundly because of the pain, you realize that you will be sleeping, and suddenly this pain will wake you up. So, when I wake up like that, I try to take some painkiller so that I can sleep and the annoying thing is that as soon as the painkiller wears off, the pain comes back again, you wake up and you not able to sleep" (P-13)*

> *"Unless I take the drugs, because they make me sleep, so if I do not take the drugs I cannot sleep, I can't because the pain is intense so I cannot sleep unless I take the drug" (P-8)*

> *"Yes, the pain did not allow me to sleep during the initial stages, and that was the reason why they prescribed that Amitriptyline and gabapentin because when you are in such pain, it becomes difficult for you to sleep you see."(P-11)*

4.7.9 Negative thoughts

Some participants disclosed how sometimes unpleasant thoughts go through their minds owing to the low back pain:

> *"…You know sometimes you would unconsciously have negative thoughts and sometimes as humans once in a while the negative will run into your brain" (P-6)*

> *As a human, as I am definitely, such thoughts will come through your mind. I had the thought of breaking down forever, becoming paralyzed, that was what kept coming to mind, hey will I be able to walk again, at a point they said they should get me a stick I said no way" (P-9)*

> *"Sometimes too you are there, and a thought will come through your mind hey what if I wake up one day and I am not able to walk again and sometimes, I feel like dying because I think it will be better for me" (P-13)*

The majority of the participants, however, indicated that they did not entertain damaging thoughts:

> *"Not at all, I do not have negative thoughts, you know I encourage myself because someones own is worse than mine but the person is normal now and why not my own so I know definitely, it [pain] has not come to stay" (P-3)*

"Oh no, I do not entertain negative thoughts, I am hopeful, you know I am also a therapist and I am always hopeful that something can be done about the problem. I do not think it [Pain] is in to stay" (P-4)

"I do not have negative thoughts because I feel that my lifestyle has contributed to this pain I have now, and all I need to do is to correct those lifestyles, and I will be fine" (P-5)

4.7.10 Beliefs

Participants held various views regarding their low back pain. They held beliefs about the cause of their low back pain, beliefs about its permanency, outcome, and spiritual involvement of their pain. All the participants were hopeful of having a better outcome as they deeply depended on God.

A participant believed that her low back pain solely resulted from a fall she had and did not attribute the pain to any supernatural spirits.

"Oh, what has happened has happened. I fell, and it [Pain] came what else. I do not think someone is responsible, for me, I believe in my God, and I believe that even if anybody wants something to happen to me, God must allow it, so if anything it is between my God and me. So I do not think that way, and with the prayers, I believe that this pain will be no more" (P-1)

Another participant believed that his low back pain emanated from previous sporting activities:

"I do not believe it is somebody doing it, no, I believe, it is more of an activity or the sports. I was very, very active, you know, and sometimes when you are much younger, and you are engaging in sports, you do not take certain precautions. I use to play hockey seriously, football, volley and maybe somewhere along those lines I must have injured myself without knowing" (P-11)

A participant also held the belief that her low back pain was due to a spinal deformity diagnosis from infancy. A participant also mentioned her work as one of the causes. As such, she does not ascribe the pain to any spiritual factor:

"Well, as I told you earlier, I have been told that the problem is with my spine from birth, so I do not have the belief that it is spiritual and those kinds of things. I am rather positive that the pain will go away one day and it is not in to stay" (P-4)

One participant thought that the nature of her low back pain puts pressure on her sometimes to entertain the thought of spiritual involvement:

"Hmmm, I do not even know what to say, at times I am forced to think that there is something spiritual behind it because I do not know why it just came, so I ask myself where from this, so at times I think about that because I do not understand it" (P-12)

On the contrary, some articulated that friends and family members had the belief that their pain was of a spiritual origin:

"... We did not understand what was happening, because by then I had just actually reported to this new workplace, so my wife said I should even resign because if I should just report to an office and then all of a sudden I had that pain then is not a place for me and that there might be a spiritual involvement" (P-9)

"Sometimes people will walk up to you and say you should pray a lot more, are you sure this is not the work of some evil people around you who are seeing the way you are prospering and they do not want you to progress anymore? I tell them whether it is physical or spiritual, God is the biggest healer, so I will not hold on to those things and use it to cripple myself..." (P-10)

"...And sometimes you speak to friends out there, and they also have their way of interpreting what caused the pain, and they will go like don't you think that this your pain is spiritual or somebody is responsible, but I do not dwell on all those kinds of stuff, it is there, but I do not think that is the cause" (P-11)

Concerning the permanency of their pain, almost all the participants believed that their low back pain was going to end one day:

"Hmmm the way this pain behaves, I do not know, but I believe that it can go away completely if I get some help, especially with money issues..." (P-13)

"Oh yeah, once I was not born with the pain, and even if I was born with it, God has a way of taking things from humans, so I know the pain has come to the wrong place, so I believe it will go away. It will go away for me to have my freedom."

(P-3)

"…I am rather positive that the pain will go away one day and it is not in to stay" (P-4)

Two participants held a contrary opinion concerning the permanency of their pain. They believed that back pain is chronic and due to ageing:

"Yeah, from what I gather, back pain is something that lingers on or chronic pain, which means that it is permanent. Yeah, I think so, and you would have to deal with it. I am wondering what you can do to these nerves to be able to stop it from misbehaving the way it does; I do not know" (P-11)

"Going away, that is why I am saying no, it will not go away, no because my mother has the same problem and she is still living with the pain after 30 years of receiving all the treatment, because you are growing and your bone is becoming weak the pain will still be there" (P-8)

On the issue of their beliefs about the outcome of their pain, most participants were optimistic:

"I have the belief that it [pain] will go when I change my lifestyle, take my exercises seriously and follow all the instructions; the pain will be better." (P-5)

"Oh, I believe it will go, I have the strong belief that I will not end up in a wheelchair, the pain will go, and I will feel like my normal self again" (P-6)

"I do not think this pain will one day disable me into a wheelchair. I am sure overtime age will catch up on me. That is a natural thing, but whether the outcome will be good or bad depends on the management techniques one is using" (P-11)

Contrariwise, a participant felt that her low back pain could disable her.

"…And I believe that if I do not take care the pain can even make me not to be able to walk again or it may cripple me" (P-12)

4.7.11 Pain meaning

This sub-theme describes how participants interpreted the painful experience. Almost all the participants interpreted the painful experience with low back pain as the worst pain, God's way of slowing them down, chronic and a lesson from God.

One participant lamented that low back pain is the worst thing that has ever happened to him:

> *"...this is the worst thing that has ever happened to me since 52 years of my life. I have not had such a total pain in my body like this before. You know, having headache and stomach pains are seen as normal things that the system used for changes, but for a pain like this I have not experienced it before" (P-3)*

A participant articulated how she saw the painful experience as God's way of slowing her down;

> *"I am a Christian, and I am like God knows best. I am a swift person, fast-moving in everything I do, and I tell myself maybe this a way God wants to slow me down in some of the things I do. Human beings have gone through many challenges, and if I were my old self maybe my reactions to this situation would have been contrary, and it would have costed me because sometimes when I have to respond to certain issues, I can be very frank" (P-10)*

Another participant thought of the pain as chronic, and a lesson God wants him to learn:

> *"...Hmm, I see it more of a chronic pain because this is a pain that is always there and it seems not to go away completely, so it is more of a chronic kind of pain, and sometimes I feel it is a lesson God wants me to learn from it." (P-11)*

4.8 Social Pain Experience

Social pain experience was explored as the sixth objective of the study, and it explains how the participant's low back pain affected or influenced their social life. The painful episode in low back pain requires that individuals affected might have to adjust to so many situations to live a meaningful life. The pain had effects on how they inter-related, socially connected, and how they were isolated and how the pain affected their work and employment. The following sub-themes were obtained; interpersonal relationship, social connection, isolation, and work, and employment.

4.8.1 Interpersonal relationship

This theme pays attention to how the participant's ability to relate well was affected by their low back pain experience. Almost all the participants narrated how their relationship with others was affected because of this pain.

In particular, a participant mentioned three areas of her interpersonal relationship that has been affected because of her low back pain; loss of interest in group activities and becoming quick-tempered, marital relationship and relationship with friends:

> *"…If there is something to be done for some people, I lose interest and sit somewhere. For instance, I lose interest in my Church group activities to the extent that sometimes I get angry and feel I should be the one to be attended to… (P-10)*

> *"Yeah, it has affected my relationship with others. It has. Like my friends… one of my friends got burnt, and I could not visit or call. So it is like I am drowned in my pain such that when I see somebody's pain, I am like I have not even taken care of myself. How can I take care of somebody else? So I later called to apologise that she should not think I do not care…" (P-10)*

> *"In my relationship with my husband, sometimes you do not know whether this my back pain is already affecting him. He will be laughing with you, but he will be drawing inspiration from outside, yes so the negativities you cannot even quantify because there are days I am unable to cook for my husband. He has to buy food, and it pierces me because he might be engaging someone to cook for him, yeah I entertain that thought sometimes." (P-10)*

Another participant explained that he did not want to be disturbed and got easily angered:

> *"Oh well, at times when you are in such pain, you know, you do not want disturbances, and at times you get angry easily in the house, either on your kids or your wife. You do not want disturbance because they do not know what you are going through" (P-2)*

Other participants, on the contrary, explained that their relationship with others instead became better:

> "*No, not at all, my relationship with family and friends has rather increased"(P-3)*

"No, no, I try hard not to allow my health problem or whatever I am going through to come between me and others. My family and friends rather sometimes see it on my face that I am in pain and will tell me oh sorry, your pain has come again, huh, yes but I smile and laugh through the pains" (P-4)

4.8.2 Social Connection

This sub-theme explains how participants either socially connected or disengaged from social activities due to the low back pain experience. The participants spoke of how they could not engage actively with friends and sometimes family. Participants also mentioned that even if they try to socialize with family and friends, they cannot engage in activities that are being done. Others, on the other, said that they were able to socialize despite the low back pain.

A few of the participants narrated that they try to go out to mingle with family and friends but were unable to engage in activities:

"Yes, I do socialize, but when I go, there are some things that I cannot do. Like when we are playing games or having an activity that involves running, jumping, you cannot do it, so you sit in your corner, and you say to yourself that oh, I wish I can also do it but you cannot" (P-8)

"You know with the pain, and you are not always able to socialize. When you even try to socialize, you are unable to concentrate and contribute to discussions, and someone will look at you and say, are you not interested in what we are doing, it is like most times, they do not understand that it is not that you just do not want to contribute but that something is eating you up" (P-11)

"Yeah, I socialize but not all the time because when the pain is there, it is difficult for me to go out there and my family and friends they understand me. The only place I go often is Church, and when I go at times when they are dancing, I am not able to dance because when the pain is there, my mind is not in the church, and I will just be sitting down. (P-12)

Another participant held a different view that they were able to socially connect with family and friends regardless of their pain because it has a way of helping them forget their pain:

"Oh, the pain, it has not affected me that much. I go to all those social activities with family and friends, but at the same time, I will be experiencing the pain, but you will not know. Those things, at times, help, especially when you are with friends or in a gathering, the chats, and the jokes and other things, make you seem to forget your pain small." (P-1)

"Yes, I socialize. I do not allow my pains to confined me if the pain is so severe that is a different thing altogether, but if it is something I can manage why not, I go out and have fun, that even helps you to forget the pain" (P-4)

"You see as for my social life, I still have it, I will go and socialize with the small, small pains, you know some people they cannot go because of the pain, but with my pain, I can go with it, it helps me to forget the pain small" (P-7)

Two participants spoke of how they avoided family and friends gathering due to their lower back pain experience:

"I honestly do forgo the family and friends gathering because everybody is expecting that when they are jumping, you should be jumping, but you do not have that strength even if you have that strength, the pain is preventing you, and people ask what at all is wrong with you that always you are not feeling well, and I do not feel comfortable having to explain to everybody, so I will just forgo everything because usually, they do not understand you" (P-6)

"When it comes to friends and family, I do not mingle with them because sometimes I feel embarrassed about the pain because everybody is okay and you alone, you are always in pain. Even for me, being a Jehovah's Witness, I normally go for preaching, but because of the pain I do not always go" (P-13)

4.8.3 Isolation

Isolation discusses how participants, during their pain experience, decreased their number of social contact or felt the need to be alone to deal with their pain. Participants pointed out instances where they socially isolated themselves.

A few of the participants talked about how they isolated from other people:

"…And at a point, on a few occasions, you feel like being alone. So at times I sit back in the office, lock the door and then just relax my mind, and I do not do anything just to relax myself…" (P-2)

"yes, so once in a while you isolate yourself, but I usually do that when I come back from work, and everybody is sitting outside, especially the family they are talking, I just say hello, then I just walk into the room then I lock myself in there like I will not step out till everybody has gone inside then I come out so most of the time I isolate myself" (P-6)

"Yes, initially I was isolating a lot but now is better. You see when you are in pain it takes over your concentration and before you realize you are by yourself" (P-11)

Others also expressed how they socially secluded or kept themselves away from social engagements*:*

> *"Okay, yes, sometimes you do not feel like going out, sometimes maybe there is a programme, and you are in pain, you prefer to stay at home because what will you go and do. You just maybe try to lie down and do something, and that chance or possibility is not there, do you prefer to stay at home and just relax" (P-8)*

> *"Well you know, it is not that you intentionally want to isolate yourself, but when you are in pain, you just want to be left alone to rest, so I do not go out there, especially when there is a get-together or some social gathering I do not go" (P-9)*

> *"I told you already there are days that even I will be lying down, the phone will be ringing, I will not pick it, like my old school friends sometimes get together, when the pain is so much I just want to be by myself" (P-10)*

Some participants, however, did not socially detach themselves from family and friends:

> *"It has not gotten to time that I do not socialize, I am always with my family and friends, most of the times, I will sit only when it has to do with standing up to go and do something, that one I will not do, but I will be with the people, so I still socialize, that one I do" (P-7)*

> *"oh no, I do not feel like isolating myself because of the pain, it is just that sometimes you just want to rest without any disturbances, but I go out for programs, and I am always with the family, so that is it" (P-12)*

> *"Oh no, I do not isolate myself. I love my family, so I always want to be with the family because their presence gives me life encouragement, so I always want to be with them and as I already told you am rehearsing to start going out for other activities because I do not want to be at one place for long" (P-3)*

4.8.4 Work and Employment

Participants shared their experience on how their low back pain affected their work and employment. A lot of the participants cited that they maintained their work and employment despite the pain experience. The majority of the participants stated that they worked but had to reduce the number of hours due to the pain:

> *"oh no, I have not restricted my work, I go to work and all that, it is just that the pain does not allow me to teach the number of hours I am supposed to teach because sometimes you are teaching and the pain starts so you have to be quick and go" (P-1)*

"You know as a lecturer you stand to teach okay, so I could not stand for a long time to teach, at times I will be teaching, and I have to sit down, but I was still able to do my work but not as I wished to deliver my lectures. At times I reduce the hours or stop to continue another day. However, I was always able to finish whatever I am supposed to do with my students…" (P-2)

"…so yes, I mean I try as much as possible to work and do what I have to do, but of course I need to be realistic as well that there are times because of the pain I just reduce the number of hours and want to relax, lie down and then you know rest but sometimes you do all that you wake up the pain is still so what is the point in not working..." (P-11)

Two participants, on the other hand, cited how they gave up on their work or employment as a result of the low back pain experience:

"Yeah, for now, I have stopped my work because of the pain, as I told earlier I am a driver and when you are driving, you sit for long hours which will not help me now in my state because when I sit for long, I feel the pain, so I had to stop for a while" (P-3)

"Yes, work I have to stop work, I have to stop work because I could not bear the pain because sometimes you go to work, you cannot sit, and when you are coming back on the way you cannot drive and all those things so I have to stop work" (P-8)

4.9 Coping methods

In the pursuit to answer the sixth research question: "What is the pain coping methods employed by patients with low back pain"? The central theme deduced was pain-coping methods by patients with low back pain. Pain coping methods were experiences shared by participants as to how they managed to survive or measures they put in place to minimize or endure the low back pain experience. Sub-themes that were obtained were pharmacological and non-pharmacological strategies.

4.9.1 Non-Pharmacological method of coping

This sub-theme sought to discuss the non-pharmacological means by which participants coped with their low back pain. It involves the use of other means apart from medications to minimize or treat the painful experience. According to participants, they employed

measures as positional changes, ignoring pain, seeking information, religious means, and social support, wearing of back support, physiotherapy/exercise, and massage to ease their pain.

4.9.1.1 Positional changes

According to some participants, they have realized that certain positions help in relieving the painful experience:

> *"Most of the times, I would say that position helps me. I have found a way to cope over the years, so positioning is one of them. I try to adjust myself in a way that will suit my body to reduce the pain" (P-10)*

> *"…And then position also helps me a lot because sometimes there are ways that you can position yourself that will relieve the pain so when I am sleeping you see me tossing and turning just to find that position" (P-10)*

> *'…And I have found out that when I take some positions, it reduces the pain so sometimes, I adjust myself in those positions to reduce the pain" (P-12)*

4.9.1.2 Ignoring the pain

Many of the participants specified that they disregarded the existence of the low back pain, and that helps them to cope:

> *"Most times I also try to ignore the pain because I was not born with it so once it has come, I have to find ways and means of taking it off" (P-1)*

> *"Sometimes I push it at the back of my mind, I just forget about it, it is there, but I do not think about it yes, so at least it helps you. When you push it to the back, it helps you to do your things, so yeah" (P-6)*

> *"Yes me, I am even good at ignoring the pain. So sometimes my friends will be asking are you really suffering, I say yes but what I can do. So sometimes I try to ignore that I am in pain, I try to force myself to do things that will take my mind off the pain" (P-8)*

Others also stated that they sought information about the low back pain and that helped them manage or cope with the pain:

> *"As I told you I am a Nurse myself, so I know a little bit about nerves, the bones and then the back pain. I do read a lot, I do read on my phone, and anywhere I find information because knowing helps you to adjust and find ways of coping with the pain." (P-10)*

> *"Sometimes I go on the internet to read about it. I want to see the effect that it will have on me, you see. But sometimes I read, and it is like I have not gotten to that scaring stage. But only that myself I do not want that thing to happen to me, I do not want to be stuck in a chair for the rest of my life so, with the information, I have now started serious things about it" (P-7)*

> *"Mostly it is my wife who always read, yes, she does that, but once in a while I do read to know what to do to cope with the pain because the videos that I watch shows there is no specific treatment, so you have find ways of living with it" (P-5)*

Two participants had a different opinion that they did not read about their pain for fear of finding information that may worsen the pain and another participant mentioned that the pain is still with her, so she does not see the need to read:

> *"Yeah you know, because I am in the field, as a health professional myself I know about back pain, and if you attempt to be reading around it to know, maybe you will find some terrible, terrible things that this thing [pain] can bring to you." (P-2)*

> *"Like I was saying some people have had low back pain and later you see them in wheelchairs because you find out terrible things that will worsen your situation." (P-2)*

> *"At the beginning, I read a lot, but now I stopped because the pain I am still inside so now I have stopped. Oh I have stopped, I have stopped. I am tired, I have stopped" (P-8)*

4.9.1.3 Religious coping

Almost all the participants talked about how they managed or coped with their pain through prayer and the hope that God can heal them or reduce the painful experience:

"God created me and being my mechanic, excuse me to say, he can restore this condition because I have that belief that he can restore me to my perfect condition, that is why these prayer and meditations do, and I know relying on God can reverse so many conditions and this pain will not be permanent…" (P-1)

"It is prayer that has kept me. I prayed and said God this is where I have found myself, and I used not to have this pain, this pain has just come all of a sudden wherever it came from send it back. So prayer, there is no single day I would go out without actually praying for my back, it became my favourite topic, and it has actually worked" (P-9)

"As for prayer, one cannot do without it. I pray, and I believe that almighty God Jehovah will help me if I do not die. I pray that God should heal my back pain so that I will be free to do my normal things because this pain is not easy for me at all" (P-13)

Quite a few of the participants' spoke of how they prayed, went to church, read their bibles as well as other religious materials to encourage themselves and to cope with the pain;

"… even sometimes when I am not able to sleep, and I am tossing in bed because of the back pain, I pray and ask God for healing, I do daily bible reading, I do not joke with it at all, read others books as well and the church I always go (P-4)

"…so I pray, read my bible, go to church and then there are particular Ministers I listen to, I listen, Joyce, Billy Graham and then I read books on Catherine Coleman and others, and as you read you see the wonderful things they did, So I use all those to encourage myself" (P-6)

"I only pray to God to help and heal me of the pain, and I try as much as possible to go to my church and always read my bible and other motivational books to comfort me" (P-12)

Some participants did not see the need to pray to God for the healing of their pain. They stated that they only ask God for good health and strength to cope with the pain:

"Oh me I see it has it is my lifestyle, so I do not believe in this prayers for healing. I believe in prayers, but this one is my lifestyle. I pray to God for good health all right, but this one is my lifestyle and some activities that I do, so I do not believe this one needs some divine healing" (P-4)

"You see, I pray for a stronger back to be able to accommodate or cope. If I say, a stronger back is a term to say that I pray for strength to be able to deal with the pain. I do not remember praying for God to take the pain away. No, I do not pray like that. It depends on your own belief systems" (P-11)

4.9.1.4 Support

Another theme that emerged under the non-pharmacological method of coping is support. Social support system became necessary most of the times to help the participant cope effectively with all the difficulties and challenges that confront them in their daily life with low back pain. All the participants shared how family members such as husbands, children, mothers, siblings and other close relations supported them with phone calls, words of encouragement, and assisted them with household activities. Again, some participants spoke about how friends and colleagues supported them by stepping in to do their work when they were unable to and spoke of how they visited them and were worried about them and encouraged them to take steps to alleviate the pain.

The support received from families such as husbands, children, mothers and siblings was expressed in the account of participants:

"…Yes sometimes my husband is so wonderful. He is always there to support. He picks the kids especially the younger one, puts him at his back so that I do not have to put him at my back and my brothers and sister to have been helpful with calling me, so these are the support I get which helps me a lot in dealing with the pain" (P-1)

"Yes I have support, when I am not able to do anything, I have a daughter who takes care of the things. Sometimes when I go on vacation, my mum does a lot for me, and it is very good because sometimes you cannot even get up, even to take your bath, it is difficult, so when somebody encourages you, try, try, and help with the small things you cannot do, somebody is there to do it" (P-8)

"So as much as possible, I get support. My family members, keep calling to find out how I am doing, my mother will also call and sometimes she will also come to us two weeks, three weeks and help especially when I was writing my exams, and my husband and children support me the most. So I have very good family support, and for me, it urges me to fight through the pain" (P-10)

Again, some participants indicated how friends and colleagues supported by stepping in to do their work for them when they were unable to, visited them and were worried about them, thus encouraged to take steps to alleviate the pain:

> *"I would say that my colleagues and the friends I work with are very kind so sometimes when I am unable to have my normal class, somebody can offer to step in for me, yeah, I will say that it is my immediate colleagues and friends, yes, they find a way of sorting me out so that it does not even have to get to my employer or my supervisor" (P-1)*

> *"Oh yes for the support I have it from my colleagues from the office and close friends who normally come to visit me at home and my own family. They give me the words of encouragement and that one even support me a lot" (P-4)*

> *"…And even my friends they are all worried for me, my colleagues at work, they are all worried for me. They keep telling me to tell the boss to change my chair, so you could see that they also care. So as for the support, over support, over support and that gives me the courage to move on" (P-7)*

A few of the participants spoke of how their Church, Sunday school children and teachers supported them through prayers and encouragement:

> *"…and my church has been wonderful, and my service kids too have been good, they go like oh Auntie today I prayed for you, at least it is encouraging, and then my teachers too have been supportive, as soon as I mention the pain they will be like oh we are praying for you it will be fine, everything will be okay, so in all areas of my life it has been good" (P-6)*

4.9.1.5 Wearing of back support

Furthermore, participants mentioned that using an assistive device such as back support, hot water bottle, and neck pillows for the back also helped to cope with the pain:

> *"Then when I go for long meetings at least now what is helping a bit is I have the hot water bottle, and then I have the waist belt that is what I am wearing now, and then I have the neck pillow, and this helps me to cope throughout the meeting." (P-6)*

> *"They also told me to get lumbar support, so I also got one which I use. Usually, when I am driving, I put it on, but when I get down to walk, I remove it, and once I remove it, then the walking becomes difficult. I use a hot water bottle at my back when I have to sit down for long" (P-10)*

Physiotherapy/exercise and massage helped the participants to also cope with their low back pain:

> "*Since then I have been managing it going through physiotherapy going through this Chinese clinic to have their massage and then acupuncture" (P-2)*
>
> *"I do a little exercise at home to support the pain, and here I do the physiotherapy, I also do some massage in the hospital, and at home too my wife does the same massaging for me. You know in Africa we believe in shea butter, so I use African healer to do the massage at home" (P-3)*
>
> *"Yes, I do physiotherapy, massage, and reflexology, yeah that is what I do whenever I come here" (P-4)*

4.9.2 Pharmacological strategies

The above sub-theme identified the use of medications or drugs as the vital agent in alleviating the pain associated with low back pain. Participants made mention of some drugs they use in coping with their pain. A few of the drugs that were identified included brufen, eloprufen, diclofenac as the main anti-steroidal inflammatory drugs, Paracetamol as an analgesic and antipyretic, tramadol, Doretta as the primary opioid. Also, gabapentin and Lyrica used in treating nerve pain, fall in the class of Anticonvulsants, and aspirin as a salicylate. Some participants also used vitamins such as vitamin B1 and B12. Despite the use of these prescribed medications, almost all the participants complained that the therapeutic effects of the medications were short-lived or could not relieve or treat pain entirely. Participants also complained of side effects such as constipation and stomach ulcers. For fear of the side effects, participants were not committed to taking the drugs consistently but took them only when the pain was severe.

4.9.2.1 Medications taken

Almost all the participants mentioned taking either one or two of the drug listed above to help cope with their pain:

> *"Yes, I have my drugs to help me manage the pain, I have them here if I can mention it to you. I have even glutamine plus which is a vitamin B1, B12, ibuprofen 500mg, I have Lyrica 75mg, so these help me to cope with the pain" (P-3)*

"Yes I have taken tramadol like uncountable times and then I have taken Doretta, Lyrica and as for the diclofenac I am tired of taking it, honestly at a point diclofenac started feeling like you taking paracetamol because every time you have back pain, the Doctor is certainly going to prescribe a tramadol injection for you and give you diclofenac after the tramadol wears off. I take some vitamins as well" (P-6)

"Yeah I was given Amitriptyline especially this NSAIDs and Gabapentin. And recently I have taken one, but I do not remember the names, I will tell you when I remember" (P-11)

According to the narrative, some participants used topical medication such as balms and ointment as part of the coping strategies:

"They gave me some medication that I should go and apply. I applied it, but I have forgotten the name of the medication, but it was an ointment" (P-9)

"My husband also smears some ointment that I was told works into the bones, so I just apply it" (P-7)

"…Mostly they give me pain killers and this balm to apply, but I cannot remember the name." (P-5)

4.9.2.2 Therapeutic effects of medications

Participants yet again lamented about how the therapeutic effects of the medications wear off quickly, and pain resurfaces again:

"I am still on drugs as I am talking to you, but you know, this drugs you take them, the pain will go for a while and come back again" (P-7)

"I was just buying drugs because I knew that was what was going to solve the pain problem, but over the years I have come to realize that it does not help that much, it gives you temporary relief, and then it leaves you there just like that." (P-11)

"I went to the hospital, and they just gave me medicine, that was Tramadol, but when I take it, it reduces the pain for some time, and the pain comes back again." (P-12)

In another scenario, all the participants articulated that they took the drugs only when the pain was severe or unbearable for fear of side effects:

"Previously the drug I used to take at a point in time was not helping me, so my doctor changed the medication for me, but I try as much as possible not to be taking it unless it is extreme because of some of the side effects" (P-1)

"Mostly when I finish the ones I have, I just leave it until when the pain is severe because I also want to be careful of the side effects and even though I do not take it frequently, I have been on the medication since the time I started having the pain" (P-5)

"Some painkillers like paracetamol and this one eh Tramadol, I do not take them too much as I told you earlier because of the side effect it will have on me. I take them only the pain becomes unbearable" (P-13)

4.9.2.3 Side effects of medication

Three (3) participants among the others spoke of how they experienced adverse effects of the medication such as stomach ulcers, drowsiness, constipation and weight gain

"Interestingly enough, I had to take 3, 4 pain killers at a time wait for 30 minutes before I have a meal. So anytime I take it I feel some uneasiness in my stomach, so the doctor who was taking care of me was like your intestines are perforated. I do not know whether he was joking with it, but I had terrible ulcers, very, very bad ulcers." (P-4)

"Oh I cannot remember, I cannot remember, yes, yes there is one of the medications that I stopped taking because it was disturbing me. You know I have an ulcer, so I had to stop one of the medication because it was disturbing me aha. (P-8)

"The tramadol has a bit of a drowsy effect, and so I realized was that I was getting drowsy in the morning when I am in class, getting constipated a lot which is also another side effect of the tramadol and was gaining weight too, I went to read, and I realized Lyrica also has a side effect of weight gain..." (P-10)

4.10 Health professionals' attitude

The study brought to light the fact that health professionals' attitude also had an impact on the participants' low back pain experience. Participants explained that health professionals, including nurses, doctors and the physiotherapy team, were helpful, supportive and gave them hope of recovering or coping with the painful experience through encouragement and teachings.

Few of the participants explained that the health professionals they encountered were good, kind, comforting, and provided them with adequate explanations regarding what to do:

> *"Well, the people I have met here so far has been good to me in the way they comfort me, especially those who help us with exercise and the spine doctor the way she will encourage you and teach you on what to do and what not to do has helped me a lot. In fact, when I came here, I did not know I will be like this but the way they talked to me let me know that know, I can go through with this pain" (P-3)*

> *"You know, the doctors and nurses I met here was kind, they were good, they tried to explain to me what I should do, what I should not do, and the position I have to take. They were kind. You see when you are in pain, and somebody takes care of you, you feel happy at least you know that yes, you are suffering, but there is hope small" (P-5)*

> *"As I said, the health workers here are nice, the physiotherapy team especially, they are very supportive, they are very good, the way they will work on you, encourage you and even talk to you gives me much hope" (P-10)*

A participant, however, mentioned that some health professionals sometimes feel one is pretending, but others are also nice, they listen and are helpful:

> *"Hmmm, you see, for me, I do not like to exaggerate. Sometimes you go, and they [health professionals] are looking at you, and they are like aha, are you sure you are in pain, yeah and one day I had to ask somebody that if I am not in pain, what will I be doing here and so these are some of the things, but I would say that some of them to are very nice and they listen to you, and then they are able to help you out" (P-1)*

4.10.1 Cost of care

The study also recognized that the cost of treatment for low back pain was high. Participants lamented over how expensive the treatment of back pain is and how it drained them financially.

Participants mentioned how the drugs, physiotherapy, chiropractic sections, MRI, X-rays, and supportive devices, among others, were expensive.

As for finances, I would not lie because some of the medications are expensive. Moreover, as a teacher, if I have to spend about GHC400 on such medications out of the meagre salary, it definitely will take away from my pocket. And not to talk of the MRI, X-ray, and physiotherapy, but anything for you to get well, I think has a way of having a strain on your pocket." (P-1)

"You can imagine 150 and 200 every day. like I told you, now I have three of the lumbar corset because for every attire you wear, you want one that will fit underneath then every week physiotherapy and the medication and MRI, do not even go there, so these days that I even try to stop this Lyrica, so it is true that it is not easy" (P-10)

"You know doing X-ray and MRI now and then, and you know MRI is very expensive and the drugs they are quite expensive. So it was affecting my finances. So I was spending money seeing a chiropractor at Nungua, and every session he charges so much, and I need to go for at least three sessions a week and is time-consuming as well (P-11)

Also, some participants reported that the pain had a toll on their finances as they could not work well or entirely stopped work. Other close relations supported participants due to the high cost of treatment:

"It is affecting me, you know I cannot do much now, yeah, now I am not able to work as I use to work and get money and the one I am having too am using it for physiotherapy and some supplements that I take. Yes, so affecting me financially because every two weeks I come here, my brother is the one who has been helping me out small, small" (P-4)

"Then you see that all the burden goes to the man. He now has to provide for everything, because there is nothing I can do, I cannot do anything, and as I said earlier, I have to stop work for all these things, and you no longer have a source of income. He now has to bear large responsibility that is the problem" (P-8)

"It affects my finances, and you know people will say this place and this medication. For example, the medication from India was very, very expensive but yes, because you want the relief so definitely you have to buy it, and my wife was very supportive. She took care of all the medication, physiotherapy and other things that I had to do" (P-9)

4.11 Summary of findings

Pain characteristics among participants with low back pain were captured under the following sub-themes, Pain origin, pain location and duration, pain intensity, and pain quality. From the findings, participants indicated that a fall, prolong sitting, work activities, road traffic accident, among others as the origin/cause of their pain. This study noted that the majority of the participants had experienced their pain for several years. However, one participant had experienced his pain for less than a year. Regarding the location and duration, participants described their pain as being mainly at the lower back but radiated to other parts of the body, especially the legs.

Looking at the pain quality, the participants used descriptive phrases and associated them with specific events such as 'being cut with a sod.' Several descriptive phrases used included radiating, burning, sharp, stabbing, piercing, pinching, dull, and pulling. The intensity of low back pain among the participants was described using words or descriptors such as severe, very severe, very, very severe, very painful, unbearable, and moderate to label the pain's severity. Some participants self-rated their pain within 7 - 8 as the most severe or increased pain on a scale of 0 to 10. Again, participants expressed the pain experienced in varied ways as verbal and non-verbal.

Pain aggravating factors were also discussed under the following sub-themes, Physical stress, Body posture, and sexual activity. Participants from the findings explained that these aggravating factors were activities they engage in while discharging their daily responsibilities. On the Physical pain experience, three sub-themes; namely activity intolerance, fatigue and sexual difficulties were explored. From the findings, participants gave an account of how their back pains hindered them from engaging in certain routine daily activities of living which include bathing, washing, walking amid others and how they ended up stopping or giving up on certain activities they formally enjoyed.

Under the Psychological pain experienced, nine sub-themes emerged as anxiety, depression, fear, other mood changes (anger, worry, sadness, and irritability), helplessness, inability to concentrate, sleeplessness, negative thoughts, beliefs, and meaning of pain. Regarding Social pain experience, the following sub-themes were obtained; interpersonal relationship, social connection, isolation, and work, and employment. On the subject of coping methods, two (2) sub-themes were derived; Pharmacological and Non-pharmacological strategies.

Pharmacologically, participants used mainly Non-steroidal ant-inflammatory drugs and opioids, among others. Health professional's attitude and the cost of pain were also discussed. Non-pharmacologically, participants employed measures as positional changes, ignoring pain, seeking information, and religious means. Support from friends and relations, wearing of back support, physiotherapy/exercise, and massage was also used to ease their pain. The detail discussions on the significant findings from the study are presented in the next chapter.

CHAPTER FIVE

DISCUSSION

This chapter discusses the key findings of this study and relates them to existing literature. The study sought to explore and describe the experiences of patients living with low back pain at the Greater Accra Regional Hospital within the Accra Metropolis. The chapter is discussed in the order of the major themes developed in the study. The themes that emerged from the study include pain characteristics, pain expression, pain aggravating factors, physical pain experience, psychological pain experience, social pain experience, and coping methods. The Biopsychosocial Model of pain developed by Engel (1977) also guided the study. The demographic characteristics of the participants are presented foremost and are subsequently followed by the themes.

5.1 Demographic Characteristics of Participants

The ages of the participants in this study ranged from 30 to 62 years, with a mean age of 46 years. The majority of the participants in this study were working at the time of the interview, and they all fall within the age range that is mostly affected with low back pain (Ike & Olawumi, 2018; Jackson et al., 2016; Yilmaz & Dedeli, 2014). However, two participants were out of work due to their low back pain, suggesting that low back pain disengages people from work (Breivik, Eisenberg, & O'Brien, 2013; Ojala et al., 2015; Schofield et al., 2012).

The constant presence of low back pain, as evidenced in this study, makes the individual unable to maintain their work capacity, which may result in reduced productivity and lead to economic burden on the individuals and their families, among others (Cruz, Alamgir, Sheth, & Nabeel, 2018; Duthey, 2013; Gedin, Alexanderson, Zethraeus, & Karampampa, 2020; Langley et al., 2010; Simon, 2012). Low back pain occurred mostly in people with a medium or low level of education than those with a high level of education (Alonso-

García & Sarría-Santamera, 2020; Altuğ, Kavlak, Kurtca, Ünal, & Cavlak, 2015; Batista, Henschke, & Oliveira, 2017; Großschädl et al., 2016).

Contrary, most participants affected with low back pain in the current study had a high level of education. There is the possibility that those with a high level of education would better understand the treatment regimen than those with a low level of education. Again, the high level of education of participants in this study informed how well they described their pain. Christianity was the most (12) practised religion among the participants in this study, which shows the dominance of the Christian Religion within the Accra Metropolis. The remaining one (1) participants was a Muslim. The above results confirm the report by Ghana Statistical Service (2014) that most residents in the Accra Metropolis (78.8%) are Christians, with 17% associated with Islamic Religion.

5.2 Pain Characteristics

The theme of pain characteristics comprise clinical features that characterized the pain experience, and it included; the origin, location, duration, intensity, and quality of pain. These are explored during the assessment process to assist the health care providers in knowing the cause and type of management strategy to explore, among others. In this study, some participants reported that their low back pain originated from trauma such as falls, road traffic accidents, and previous sporting activities. These findings are consistent with studies that identified several origins of low back pain (Amirdelfan et al., 2014; Cohen, Chen, & Neufeld, 2013; Ehrlich, 2003; Graw & Wiesel, 2008; Hemming, Sheeran, Van Deursen, & Sparkes, 2018). Low back pain has many causes and risk factors associated with it which makes the assessment and diagnosis process quite a complex one. As such, understating these factors and how to embark on a comprehensive assessment to be able to identify the origin of the pain is essential for providing patients with lower back

pain the most appropriate management and referral that will be beneficial to the patient (Amirdelfan, McRoberts, & Deer, 2014; Świeboda, Filip, Prystupa, & Drozd, 2013).

Furthermore, other causes of LBP identified in this study included long hours of sitting, standing and bending during work (Barros, Ângelo, & Uchôa, 2011; Bontrup et al., 2019; Brandao, Horta, & Tomasi, 2005). Participants again reported that school activities also caused their low back pain as have been reported by other studies (Anggiat, Hon, & Baait, 2018; Chiwaridzo, Chamarime, & Dambi, 2018; Issa, Seleem, Bakheit, Baky, & Alotaibi, 2016). Most of the participants in this study believed that their low back pain was of a biomedical origin and described it as either physical or anatomical as established by previous studies (Singh, Newton, O'Sullivan, Soundy, & Heneghan, 2018).

However, a few of the participants felt that their pain was a result of spiritual factors. At the same time, others also articulated that their close relations attributed their pain to spiritual factors, although they did not hold that belief. Participants held all these beliefs as a result of LBP non-specific and persistent nature. The results mentioned above are similar to existing studies (Igwesi-Chidobe et al., 2018). Few of the participants in this study also noted that their back pain suddenly came and had no idea about the causative factor. These findings demonstrated the multi-factorial nature of low back pain. Therefore a careful assessment will aid in the identification of the causes or source of pain and successful management of patients suffering from LPB.

The location of the pain can be identified during the assessment process. The location may help determine the cause of the pain (Świeboda et al., 2013) and the distribution of pain (DePalma, Ketchum, Trussell, Saullo, & Slipman, 2011). In the current study, participants described their pain as mainly at the middle portion of the lower back, and it is similar to what was reported by (DePalma et al., 2011; Nahin, 2015; Tavee & Levin, 2017).

The duration of pain is a measurable characteristic of pain, which helps clinicians distinguish between acute and chronic pain (Świeboda et al., 2013). This study identified that participants had suffered from their pain from four months up to ten years and over. This result shows a state of chronicity as supported by earlier studies that stated that low back pain becomes chronic when it persists and last longer than three months (Last & Hulbert, 2010; Patrick, Emanski, & Knaub, 2014; Vialle, 2016). Establishing low back pain as either acute or chronic helps to provide an outline by which additional assessment and subsequent treatment may be determined by the health care providers (Tavee & Levin, 2017).

Furthermore, the participants in this recent study reported having an episode of the low back that lasted between two to three days, one week, or at most one month. These findings are in tandem with the study by (De Vet et al., 2002), which states that an episode of pain in patients with low back pain lasts for more than 24 hours. Also, the episode of pain in some participant that lasted for two to 3days and one-week is similar to the work by (Chiwaridzo et al., 2018; Oberlinner, Yong, Nasterlack, Pluto, & Lang, 2015), who also identified that an episode of low back pain lasted between 1-7days. The study also found out that the pain episodes among the participants were inconsistent and unpredictable with periods of exacerbation and pain-free periods (Kongsted, Kent, Axen, Downie, & Dunn, 2016; Von Korff, 1994).

Assessing pain intensity is a crucial step in managing patients with low back pain. The intensity of pain is particularly important as it assists the health worker in evaluating and determining the effectiveness of treatment and the underlying cause of the condition. The intensity of chronic pain among the participants in this study was described as *'very, very severe' 'very severe,' and 'unbearable'.* Other participants also self-rated their pain between 7-8, indicating increased pain on a scale of 0 to 10, where 0 indicated the absence

of pain and 10 referred to as the most severe pain. The above findings are supported by previous studies on the intensity of pain among patients with low back pain (De Souza & Frank, 2000; Egwu & Olakunle, 2012; Nunn, Hayden, & Magee, 2017).

Few participants in this study further experienced intensified pain during the night and are subsequently unable to sleep. These findings agree with the findings of (Aziato et al., 2016). The intensity of pain also affected some participants in various ways, such as raising their blood pressure (Bruehl, Chung, Jirjis, & Biridepalli, 2005; Olsen et al., 2013; Saccò et al., 2013) and causing headaches (Yoon et al., 2013). This finding goes a long way to suggest that patients who present with a chronic low back should be thoroughly assessed regularly to detect an increase in blood pressure and headaches to help in efficient pain management.

Patients use certain words when describing their chronic pain, and these constitute pain quality descriptors which are frequently used to describe the pain experience (Dudgeon et al., 2005; Jensen, Johnson, Gertz, Galer, & Gammaitoni, 2013). Therefore, pain quality is an attribute that is very valuable when evaluating the origin of pain among patients during the assessment process (Świeboda et al., 2013). In this study participants described the quality of their pain as; '*radiating,' 'burning,' 'sharp,' 'stabbing,' 'pinching,' 'piercing,' 'dull,' 'pulling,' 'aching' and 'numbing'*. Pain quality descriptors such as radiating, burning, sharp, stabbing, piercing, dull, aching, and numbing used in this study are consistent with existing studies (De Souza & Frank, 2000; Lin, Kupper, Gammaitoni, Galer, & Jensen, 2011; O'Brien & Breivik, 2012; Stensland & Sanders, 2018; Tavares, Franzoi, & Araújo, 2010; Victor et al., 2008). These studies also identified pain descriptors among LBP patients. Similarly, burning and pulling agree with some pain descriptors identified by (Aziato & Adejumo, 2015).

Furthermore, previous studies have considered low back pain to be a combination of nociceptive and neuropathic pain (Baron et al., 2016; Bouhassira, Lantéri-Minet, Attal, Laurent, & Touboul, 2008), which are closely linked to pain descriptors. It is worth noting that the current study did not primarily focus on identifying the types of pain (nociceptive/neuropathic) participants were experiencing. However, participants in this study may be experiencing either one or both types of pain. Available evidence suggests that nociceptive pain is characterized by descriptors such as sharp, pricking, shock-like, dull, and aching or burning (Prescott & Ratté, 2017).

Neuropathic pain is also identified with descriptors such as burning, tingling, shooting, stabbing, or numb sensation (Steeds, 2016). Participants in the current study also used these descriptors to describe their experiences or feelings. The majority of the participants accurately describe their pain using any of the pain descriptors mentioned above. The findings, thus, suggest the urgent need for health professionals attending to patients with low back pain to give more attention to these descriptors during the assessment process. Healthcare providers may as well encourage patients to use these pain descriptors as it may help the clinician to understand the type of pain experienced by their patients and inform further management.

5.3 Pain Expression

This theme focused on how the participants behaved when they were in pain. The pain behaviours show how participants made others aware of the pain they were experiencing. Pain has been alluded to be a subjective experience, and consequently, individuals who suffer the pain must properly communicate it through pain expression to assist in its appropriate management (Briggs, 2010; Julie Gregory, 2019; Rowbotham, Holler, et al., 2014). From the findings in the present study, the pain was expressed in different ways. Participants employed verbal and non-verbal or both to express their low back pain. The

participants of this study verbalize their pain by crying, screaming, and complaining. Similar observations by (Booker & Haedtke, 2016; Feldt, 2000) supported these pain expressions. The findings emanating from the current study again agreed with (Aziato & Adejumo, 2015), who, in their ethnographic study of post-operative pain, mentioned crying, and shouting among others, as verbal ways of communicating pain.

The experience and expression of pain are based on what the individual says and exists whenever the same individual says it does (McCaffery, 1968). This subjectivity of the pain experience was evident in the current study. The implication is that healthcare professionals who manage patients with low back pain may have to take on the responsibility of allowing their patients the freedom to verbally express their pain without any fears during the assessment period. Expressing one's pain will help the clinician to develop a better understanding and offer appropriate treatment that will be of use to the patient. It is also evidenced that when patients cannot talk about the pain experienced, observing the pain experienced forms an essential basis for assessing pain (Julie Gregory, 2019). Hence the observation of the patient's behaviour has been included in several observational pain assessment tools to ensure consistent pain evaluation.

The non-verbal pain expression exhibited by the participants of this present study included; refusing to communicate, facial expression (frowning), stretching, and tapping the site of pain. Several similar non-verbal pain expressions have been identified in previous studies (Booker & Haedtke, 2016; Rowbotham, Holler, et al., 2014; Stanley & Chinwe, 2016). This finding indicates that clinicians must endeavour to improve their observational skills. This would enable them to apply the appropriate observational pain assessment tools to identify patients who use non-verbal means to convey their pain if appropriate treatment is to be achieved.

This recent study noted that the men were unwilling to talk about their pain. These findings are in support of the findings by (Samulowitz, Gremyr, Eriksson, & Hensing, 2018; Tang Yu-rong, Yang, Wang, & Lin, 2012). The current study again discovered that most of the men were unwilling to report their pain than women due to gender role expectations. For example, the men in the current study declined to report their pain because to them, a man must accommodate his pain rather than complain. The reason, as explained in several studies, suggests that men are trained to be tough, bear pain, and endure painful experiences while girls and women are socially accepted to be sensitive, careful and expressive of their distress (Myers, Riley III, & Robinson, 2003; Samulowitz et al., 2018).

Furthermore, the male participants in this study also felt the need to show their manliness in the face of pain. They were thus reluctant to admit their pain until the pain becomes unbearable, as was also identified by (Samulowitz et al., 2018). The above findings call for a better understanding or further studies to identify why these differences occur to formulate strategies that could motivate men to express their pains. The findings again imply that health professionals must take cognisance of this behaviour and avoid bias during pain assessment and management.

5.4 Pain aggravating Factors

Factors aggravating or relieving pain are important indicators during history taking (Patel & Kinsella, 2017). The aggravating or relieving factors help to focus on identifying mechanical factors during an investigation (Borenstein & Calin, 2012). This aspect of the pain assessment also assists in finding the causes and providing target and effective treatment (Swift, 2015). This current study found out that physical stress, body posture, and sexual activities aggravated the participant's pain. Being physically stressed with daily activities aggravated the participant's pain. This supports (Fujiwara et al., 2010), who

stated that physical stress aggravated the intensity of pain among patients. Again, findings in this study agree with previous studies (Tavafian et al., 2008), which also acknowledge that hard work both at home and work produces stress, and subsequently aggravating back pains. Body postures such as excessive curvature of the spine (Boutevillain, Dupeyron, Rouch, Richard, & Coudeyre, 2017; Hemming et al., 2018) and movement and some other postures aggravate low back pain (O'Sullivan, 2005).

Prolong sitting, walking, standing, bending, climbing stairs, lifting, and sneezing was identified as factors that aggravated pain in the participants in this study. These findings agreed with other research (Ehrlich, 2003; Lowery et al., 2013; Setchell et al., 2019; Suri et al., 2010). The present study also revealed that bad sleeping posture aggravated low back pain as indicated by these earlier studies (Desouzart et al., 2014; Gordon et al., 2007; Lowery et al., 2013). The current study again revealed that physical exercise leads to worsening of pain in some participants. These findings are contrary to several studies that have indicated that physical exercise reduces pain and promotes function (Boutevillain et al., 2017; Dreisinger, 2014; Gobbo et al., 2019; Jebakani et al., 2015; Ojoga, Davila, & Marinescu, 2013).

Physical exercise that aggravated the pain of the participants in this study may be due to too much exercise or the wrong type of exercise. According to a few of the participants in this study, playing a game like volleyball aggravated their pain (Hestbaek et al., 2006). Additionally, sexual activities were found among the factors that aggravated the participant's low back pain. An earlier report well acknowledges this result (Akbaş et al., 2010; Ambler et al., 2001; Horst et al., 2016; Kirubakaran & Dongre, 2019; Maigne & Chatellier, 2001; Sidorkewicz & McGill, 2015). Consequently, fear of aggravating pain may lead to participants avoiding those specific activities and other activities of daily

living (Al-Eisa, Buragadda, & Melam, 2017; Cummings et al., 2017) which may negatively affect their quality of life.

A few of the participants in this study reported that their pain occurred suddenly without any aggravating factors. Besides talking about the aggravating factors, participants in this study also cited factors such as rest, exercise, stretching exercise, and medications that helped to relieve their pain. These findings fall in line with those by (Setchell et al., 2019). Other participants also revealed that they used back supports and some topical applications to ease the pain.

5.5 Physical Pain Experience

Pain intensity and how long it last places a restriction on patients' physical performance leading to a reduction in physical activity, causing disability and subsequently affecting other areas of life (Dueñas et al., 2016). In this study, some participants could not tolerate activities such as walking, standing, and sitting for long hours. The findings concurred with several studies (Altuğ et al., 2015; Dueñas et al., 2016; Lin et al., 2012; Ojala et al., 2015; Stamm et al., 2016; Watanabe et al., 2018; Yiengprugsawan et al., 2017). Pain also made participants in this study have awkward mobility, such as walking sideways and slow (Snelgrove & Liossi, 2013). Other participants were also unable to lift or carry heavy things, climb stairs, and carry their children as supported by the finding of these other studies (Bailly et al., 2015; Mathew et al., 2013; Stamm et al., 2016; Watanabe et al., 2018; Yiengprugsawan et al., 2017).

A few of the participants in this study narrated that they checked in advance of places they have an appointment to ensure that their physical features will not lead to aggravation of their pain. A previous report by (Stensland & Sanders, 2018) agrees with the above findings. Some participants in this study as well were unable to bath and carry out a

household task such as washing and weeding due to difficulty in bending as well as cooking (Elizabeth Cummings , van Schalkwyk, Grunschel, Snyder, & Davidson, 2017; Mathew et al., 2013; Stamm et al., 2016). Other participants also narrated that they could not drive and do specific exercises. These findings are in agreement with other previous studies (Sanders, Ong, Roberts, & Corbett, 2015). Finding from this study further indicated that participants battled with fatigue. This is congruent with studies of (Ameringer et al., 2014; Perry et al., 2016; Snekkevik et al., 2014; Sturgeon et al., 2015)**,** which stated that fatigue is common among people who suffer chronic pain.

The sexual life of the participants also became impaired due to their back pains. This result is similar to earlier studies by (Bahouq Hanane et al., 2013; Ferrari et al., 2019; Ojala et al., 2015). However, some participants in this study reported that their pain did not impair their sexual life. This report is supported by (Ferrari et al., 2019)**,** who also revealed that although most participants in their study had sexual problems, a few did not experience any difficulty in sexual life. This finding suggests the need for clinicians to address sexual concerns in the assessment and management of low back pain.

5.6 Psychological pain experience

Chronic low back pain is said to have a substantial psychological impact on sufferers (Kakpovi et al., 2017). The two most common form of psychological disorders observed in chronic low back pain is anxiety and depression (Burke et al., 2015; Howe et al., 2015; Sagheer et al., 2013) Finding from the study showed that participants were faced with anxiety as to what led to their pain and whether the pain will persist. Depression was also identified among the participants, and they related it to the constant presence of the pain, the inability to perform certain activities and why they had to be affected by such pain. The findings corroborate with previous studies, which likewise associated the experience of low back pain with depression and anxiety (Cummings 2018; Driscoll & Kerns, 2016;

Dunham et al., 2013; Gebauer et al., 2015; McGuire et al., 2014; Peters, 2015; Phyomaung et al., 2014). Contrary to these studies, few participants in the recent study thought of their pain as usual and, therefore, did not experience anxiety and depression.

The study also identified emotional changes such as fear related to death, the outcome of pain, and the use of medical jargon by clinicians. This finding, as revealed by participants, is consistent with previous studies (Crombez et al., 2013; Dunham et al., 2013; Makris et al., 2017; Peters, 2015; Stensland & Sanders, 2018). The fear was also related to the fact that pain medication will lead to unpleasant side effects (Dunham et al., 2013). Furthermore, a few participants in the current study feared that their low back pain would lead to paralysis in the future. Others stated that they did not harbour any fear concerning their back pain.

Participants in this study, in describing their experience with the pain, also alluded to the fact that their pain made them worried and sad because they could not perform desired activities (MacNeela et al., 2015; Makris et al., 2017; Sanders et al., 2015; Stensland & Sanders, 2018). On the other hand, some participants were not worried and sad because they thought of the pain as typical. Again participants in the current study articulated that they got angry with themselves and felt irritated due to the presence of pain. This report is confirmed by other scholars (Burns et al., 2016; Dunham et al., 2013; Henwood & Ellis, 2004; Igwesi-Chidobe et al., 2017; Peters, 2015; Snelgrove & Liossi, 2009).

Findings from this present study showed that some of the participants felt helpless because they could not carry out one activity or the other, as other previous studies have confirmed (Dunham et al., 2013; Gran et al., 2010; Van Griensven, 2016). A few of the participants in this study, however, reported that they did not experience helplessness be they have support. Sleep is essential in maintaining the emotional, mental, and physical

health of individuals (Hillman et al., 2006). The inability to sleep has been high in patients with chronic pain (Bahouq et al., 2013; Daly-Eichenhardt et al., 2016; Tang Nicole et al., 2007; Tang et al., 2012). Participants in this present study identified sleep disturbances as part of the problems that accompanied their pain experience. Participants narrated that they were unable to sleep due to pain and that they were awoken out of sleep when the pain is intensified. The findings are in accord with other studies which also identified sleep disturbance in chronic low back pain experience (De Souza Lorraine H & Frank, 2007; Purushothaman et al., 2013; Raak & Wahren, 2006; Sezgin et al., 2015; Sribastav et al., 2017).

Again, it emerged from the study that the participants took medications to enable them to sleep. This supports studies by (Stensland & Sanders, 2018)**,** who found out that persons with CLBP took sleeping aid medication when awoken out of sleep due to pain. Similarly, Taguchi (2003) also identified that providing patients with sleeping medication is important since insufficient sleep may lead to unhealthy feeling and extend the period of low back pain. The inability to concentrate when performing a task while in pain was among the challenges identified among participants in this study. These findings are also acknowledged by (Cummings et al., 2017; Makris et al., 2017).

Participants likewise spoke about how negative thoughts regarding the consequences of their pain usurped through their minds. The above result is also congruent with other studies (Hall et al., 2011; Main et al., 2010; Ramond et al., 2011). The majority of the participants in this study held the belief that their back pains were of biomedical origin. Which includes physical damage to the spine through work activities, sporting activities falls, road traffic accidents, and anatomical deformity. The stated findings are in accordance with other studies (Singh et al., 2018a; Snelgrove & Liossi, 2013), which showed that participants held a biomedical belief about the cause of their pain.

However, a few of the participants believed that spiritual factors were involved in the cause of their pain. Participants alluded this to the persistent nature of their back pain and how they did understand why and how the pain came. Previous studies supporting these findings attributed the persistent nature and unclear diagnosis of low back pain to spiritual factors such as a spiritual spell cast on a person (Igwesi-Chidobe et al., 2018). Concerning the pain's outcome and permanency, most participants in this study also held a positive belief. They were optimistic that their back pain would resolve. These findings are consistent with earlier studies by (Grøn, Jensen, Jensen, & Kongsted, 2019; Singh, Newton, O'Sullivan, Soundy, & Heneghan, 2018).

Nevertheless, some of the participants in this study were rather pessimistic and believed that if care is not taken, their back pain will end in paralysis. They also believed that the pain would remain with them for the rest of their lives. Consistent with these findings are the previous studies by (Grøn Søren et al., 2019; Järemo, Arman, Gerdle, Larsson, & Gottberg, 2017; Makris et al., 2017; Tarimo & Diener, 2017). The finding suggests that health care professional in handling patient with low back pain may include pain beliefs during the period of assessment as this pain belief can influence how a person control, manage and copes with the painful condition (Babadağ et al., 2015; Baird Andrew & Haslam, 2013; Cogan et al., 2014; Koçoğlu & Özdemir, 2011; Sloan et al., 2008).

This study further found out that participants attached some meanings to their pain experience in their attempts to understand the pain and cope with the pain. The findings are supported by (Sherman & Simonton, 2012), who mentioned that having meaning in life is an important aspect of adjusting to a chronic pain condition. Some participants in the current study interpreted their low back pain as the worst thing that had ever happened to them. Others thought of the pain as God's way of slowing them down while a few thought that low back pain is chronic pain and considered it a lesson God wants them to

learn. The above meanings, as narrated by participants, are an essential component linked to the well-being of individuals with chronic pain conditions (Dezutter et al., 2015).

However, not many researchers have explored the search for meaning despite its importance in adjusting when confronted with a health stressor (Scrignaro et al., 2015). This implies that the meanings patients assign to their pains tells whether the pain condition will be accepted, and subsequent management will be followed or not. Consequently, health professionals may seek to know among patients with low back pain, the meaning they associate with their pain to ensure adequate adherence to management guidelines.

5.7 Social Pain Experience

Chronic pain likewise results in the severe decline of an individual's social and familial environment. The study's findings indicated that participants' social lives were affected in the area of their interpersonal relationship, social connectedness, isolation, and work, and employment. Participants in this study narrated that their relationship with their spouses, friends, and family was affected. Other previous studies support this claim (Froud et al., 2014; Singh et al., 2018). Participants also became easily angered due to the pain, as asserted by some studies (Henwood & Ellis, 2004).

The study also noted that participants were unable to engage actively with friends and family due to their pain. These findings have also been noted by these other studies (Closs et al., 2009; Nyvang et al., 2016; Ojeda et al., 2014; Porter et al., 2008). In this study, a few participants avoided family and friends gathering because they did not want to disclose their pain condition to everyone and because these close relations did not understand them. These findings have also been noted in other earlier studies (Poscia et al., 2018).

Findings from this study showed that participants socially connected with family and friends despite their pain. Participants recounted that socialising among family and friends helps them to forget their pain. Conversely, other participants felt embarrassed to be among others because they felt that they were the only people disabled with LBP. The findings fall in line with the findings from a related study (Bailly et al., 2015)**,** who also found out that patients with chronic low back pain feel embarrassed of being disabled with LBP. As such, participants in this present study isolated themselves from close acquaintances and other social engagement (Hawthorne et al., 2013; Karayannis et al., 2019; Mellado et al., 2016; Moulin et al., 2002). Contrary to these previous studies, some participants in this new study reported that they were rather always with their family and friends and did not feel the need to isolate themselves.

Low back pain affected the work and employment of almost all the participants in this study. Participants maintained their work and employment despite the pain experience. They further reported that they worked but had to reduce the working hours and were unable to work to their satisfaction owing to the pain. The present finding is supported by previously related reported by (Closs et al., 2009; Dutmer et al., 2019; Hondras et al., 2016; Mathew et al., 2013). The current study also discovered that some participants gave up on their work and employment since they could not sit for long and drive because of their back pain experience. These findings are similar to an existing report by (Dehkordi et al., 2016; Dutmer et al., 2019; Mathew et al., 2013)**.**

5.8 Coping methods

Patient with chronic pain, including those with low back pain, uses a range of cognitive and behavioural strategies to cope with their pain (Stoffel et al., 2013). The study findings revealed that one of the methods employed by participants in coping with their low back pain was pharmacological help. This implies that participants resorted to the use of

medicine with the main aim of reducing their pain. The above findings are congruent with the finding of several previous studies (Büssing et al., 2010; Michaëlis et al., 2015; Singh et al., 2018; Snelgrove & Liossi, 2013) which reported that some methods by which persons with low back pain handled their pain was taking drugs to reduce the painful sensation.

The study participants also identified a few of the drugs used in coping with the pain as Diclofenac, Tramadol, paracetamol, Lyrica, gabapentin, amitriptyline brufen, and Doretta, among others. Participants also used topical medication like balm and ointment. The findings agree with previous studies (Day & Graham, 2013; Last & Hulbert, 2010; Saragiotto et al., 2016; Smith, Olivas, & Smith, 2019) who cited the use of these medications in managing low back pain. Some participants were also given a prescription of vitamin b1 and vitamin b12, which also helped with the pain. These findings are related to findings by (Mauro, Martorana, Cataldo, Brancato, & Letizia, 2000)**,** who found out that the B vitamins help in healing damaged nerves. However, the exact mechanism is not known.

Participants again narrated that the medications' therapeutic effects were short-lived and could not relieve or treat pain entirely. These findings have also been confirmed by other studies (Cummings, 2018). For fear of side effects of medications, the present study noted that participants did not take the drugs often but took them only when the pain was severe as observed by these other studies (Cogan et al., 2014; Dunham et al., 2013). Furthermore, participants in this study complained of side effects such as drowsiness, constipation, and stomach ulcers, as observed by (Imamura, 2015; Labianca et al., 2012; White, Arnold, Norvell, Ecker, & Fehlings, 2011).

Participants in the current study also used Non-pharmacological means as well to cope with their pain. Some realised that positional changes helped them to cope with the pain. A few of the participants sought information on their pain by reading from the internet and other sources. Participants also engaged in some exercises as well as massages to help them cope with the pain. These findings are consistent with findings from (Büssing et al., 2010; Jensen & Karoly, 1991; Singh et al., 2018). Other participants also cited that they sometimes ignored the pain as a means of coping with it. This report confirms findings from these other studies (Cabak et al., 2015; Jensen & Karoly, 1991). Again, almost all the participants in this study recounted that they managed or coped with their pain through prayer and hope that God can heal them as noted by these previous studies (Cabak et al., 2015; Dienye et al., 2016; Misterska et al., 2013; Rodriguez et al., 2019).

Participants in the current study further reported that they read their bibles, went to church, and read other religious materials as another means of coping with their pain. The stated findings are congruent with the finding by (Reiner et al., 2013; Taylor et al., 2013). However, a few of the participants did not see the need to seek spiritual intervention because they felt their low back pains were due to their lifestyle, and once that is corrected, they will be fine. These findings suggest that individuals who go through chronic pain place value on religiosity/spirituality, and thus, clinicians managing patients with low back pain may consider inculcating religious/spiritual methods of coping in its management. The findings also suggest that healthcare providers must intensify education on lifestyles that result in low back pain among patients and the general public to reduce its occurrence.

Social support, such as support from family and friends, was utilized by the participant in this new study to cope with their pain (Ko et al., 2010). Participants in this study explained that their family members, such as husbands, children, mothers, siblings, and other close

relatives, supported them through phone calls, words of encouragement, and household activities. Findings from earlier studies (Re et al., 2017; Rodriguez et al., 2019; Snelgrove & Liossi, 2013) supported this current study's findings. Once again, some participants in this study reported that colleagues and friends supported them by stepping in to do their work when they could not do it. Results from the study also showed that friends and colleagues of participants visited and were worried about them and encouraged them to take steps to alleviate the pain as supported by (Bailly et al., 2015).

Some of the participants mentioned that their church, Sunday school children, and teachers supported them with prayer and words of encouragement. The participants' narratives regarding how social support helped them cope with their painful experience meant that social support is an essential component in the pain experience and that health professionals must properly inculcate social support during the management of patients with low back pain. The current study also showed that participants in this study used corset and back support, which helped in coping with the pain.

This study further found out that participants attached some meanings to their pain experience in their attempts to understand the pain and cope with the pain. The findings are supported by (Sherman & Simonton, 2012), who mentioned that having meaning in life is an important aspect of adjusting to a chronic pain condition. Some participants in the current study interpreted their low back pain as the worst thing that had ever happened to them. Others thought of the pain as God's way of slowing them down while a few thought that low back pain is chronic pain and considered it a lesson God wants them to learn. The above meanings, as narrated by participants, are an essential component linked to the well-being of individuals with chronic pain conditions (Dezutter et al., 2015).

However, not many researchers have explored the searching for meaning despite its importance in adjusting when confronted with a health stressor (Scrignaro et al., 2015). This implies that the meaning patients assign to their pains tells whether the pain condition will be accepted, and subsequent management will be followed. Consequently, health professionals may seek to know among patients with low back pain, the meaning they associate with their pain to ensure adequate adherence to management guidelines.

Another finding that emanated from the study was health professional's attitudes towards patients with low back pain seeking care. Participants in their narrative pointed out that some health professionals, including nurses, doctors, and physiotherapists, were pleasant, helpful, listened to them, and were supportive, which gave them hope of recovering from the painful experience through encouragement and teachings. These findings confirm the report by (Rodriguez et al., 2019) and (Cummings, 2018). Some participants in this study also commented that health professionals sometimes felt they were pretending to be in pain. The stated findings thus agree with the report by (Cummings, 2018) who found out that sometimes patients complain about how health providers did not validate their pain severity. Therefore, health professionals must endeavour to establish a good relationship and show good attitudes towards their patients in pain to achieve adequate pain management.

Some other findings noted in the current study included the cost of treatment for low back pain. Participant in the study recognized that the cost of low back pain was high and lamented over how it drained them financially. They further reported that the drugs, physiotherapy, chiropractic sections, MRI, X-rays, and supportive devices were expensive. The study findings corroborate with the work of these scholars (Bello Bashir, 2017; Geurts et al., 2018; Itz et al., 2017; Maniadakis & Gray, 2000).

These studies also noted that the cost of treatment for low back pain was high. Most of the participants reported that the pain had a toll on their finances as they could not work as expected or have entirely stopped work. These findings have been confirmed by (Schofield et al., 2015)**,** who stated that low back pain affects the economic situation of people who are affected by it and consequently are unable to accrue wealth when compared with those without LBP. The current study also found out that the high cost of treatment leads to participants being supported by other close relations.

5.9 Evaluation of the Model

The conceptual framework that was utilised in this study was the Biopsychosocial Model of Pain. The constructs found within the model helped in formulating the objectives of the study and the development of the interview guide used in the study. The constructs in the model were again helpful as they informed the search of related literature used in the study. The constructs of the model include; physical/biological, psychological, psychosocial and other factors. The fourth constructs of the model; other factors were not explored in this study.

The physical/biological dimension of the model included nociceptive, injury, trauma, illness, infection, cancer, and nerve damage which are seen as factors that lead to pain. This dimension was not consistent with what emerged from the study, even though participants in the current study noted that their pains were from physical causes, they did not relate it to nociceptive injury, trauma, illness, infection, and cancer and nerve damage. Notwithstanding, the pain description is biologically related, and the major theme that emerged derived from the physical/biological was characteristics of pain having sub-themes such as pain origin, pain intensity, and pain location/duration and pain quality.

The psychological experience of low back pain found in the current study was consistent with the psychological domain of the biopsychosocial model. The central theme generated was psychological pain experienced with sub-themes as anxiety, depression, fear, helplessness, inability to concentrate, mood changes, sleep, and negative thoughts, beliefs and meaning of pain. Furthermore, the psychosocial experience of pain, as mentioned by the biopsychosocial model views the psychological experience of pain as entwined with the social experience of pain.

Nonetheless, this present study found out that the social experience of pain is different from the psychological effects of pain, although one could affect the other. The theme that emanated from the study was social pain experience with sub-themes which included; Interpersonal relationships, isolation, social connection, and work and employment which was consistent with the psychosocial domain of the biopsychosocial model.

Again, the current identified coping skills in patients with low back pain which was consistent with the biopsychosocial model. However, the biopsychosocial model made mention of coping skills under the psychological domain. The current study noted that coping skills adopted by patients with low back pain were not only psychological as participants employed various coping skills that also involved physical/biological and social domains. Coping skills, therefore, could not be solely categorised under the psychological experience of pain.

However, other themes emerged from the data which were not consistent with the constructs of the model. The current study identified pain expression, which has sub-themes as verbal and non-verbal pain expression of pain in patients with low back pain. This aspect of the pain experience was not consistent with the constructs of the biopsychosocial model. Pain aggravating factors in patients with low back pain also

emerged from the study with sub-themes as body posture, physical stress and sexual activity which did not also agree with the biopsychosocial model.

Finally, the present study found out about the physical effect or experience of low back pain, which has sub-themes that included; activity intolerance, fatigue and sexual difficulties. The physical effect/experience was also not consistent with the constructs found within the biopsychosocial model. Other findings included the cost of treatment and health professional attitude, which were not found in the biopsychosocial model.

5.9 Suggestion for model modification

The researcher, therefore, recommends that the physical/biological domain of the biopsychosocial model should be expanded to include the characteristics of pain which will capture the location/duration, intensity/severity, and quality of pain as well as the expression of pain. Also, the other factors mentioned by the biopsychosocial model should be modified as pain aggravating and relieving factors because the study found out that certain factors sustain the intensity of the pain and patients utilised various means to relieve or alleviate the pain.

Again coping skills placed under the psychological domain should be modified as coping strategies and added to the biopsychosocial model as a key construct to capture the physical/biological, psychological and social means of coping because the present study identified that patients use various coping skills involving the above constructs as mentioned earlier. Again, health professional's attitude should be added to the coping strategies as it emerged from the study that the way health professionals handle patient gives them hope of coping with their pain condition and adhere to the treatment regimen.

Finally, pain meaning should be added to the psychological domain of the biopsychosocial model because the findings of the study also indicated that when patients are overwhelmed

with their pain, they try to find meaning to cope with the pain. Also, the cost of treatment the emerged out of the study should be added to the social domains of the biopsychosocial model as the high cost of treatment placed a heavy financial burden on the patients thus affecting their social life.

CHAPTER SIX

SUMMARY, IMPLICATION, LIMITATION, CONCLUSION, AND RECOMMENDATION

This chapter discusses the study's findings and their implication for nursing practice, research, management, and education. The chapter as well discusses the limitations to the study and conclusions made from the study. Lastly, the chapter makes recommendations for future research based on the study.

6.1 Summary of the study

Patients with low back pain seeking treatment at the Greater Accra Regional Hospital face many daily challenges that spanned across the physical, psychological, social, and spiritual domains of life. These challenges impact negatively on their health and quality of life. Therefore, this study sought to explore the experiences of chronic pain among patients living with low back pain in the Accra Metropolis. The study mainly described the characteristics of pain, pain expression, pain aggravating factors, physical pain experience, psychological pain experience, social pain experience, and finally, coping methods.

The study utilised a qualitative approach with an explorative, descriptive design. The Biopsychosocial Model by Engel (Engel, 1977) as a conceptual framework guided the study. Based on the study objectives and the Biopsychosocial Model by Engel (Engel, 1977), a semi-structured interview guide was developed to generate data on the experiences of people living with LBP. The study participants were patients seeking treatment at the Greater Accra Regional Hospital and were selected purposively to partake in the study. Collection of data and analysis occurred concurrently, and saturation was reached after interviewing the thirteenth participants. All interviews which were conducted in English were audio-recorded and transcribed verbatim by the researcher. Data collected were analysed using a thematic, and a content analyses approach. From the data analysed,

seven (7) primary themes developed were; characteristics of pain, pain expression, pain aggravating factors, physical pain experience, psychological pain experience, social pain experience, and coping methods.

Four (4) of the themes developed were not contained in the constructs of the model used for the study. These include characteristics of pain, pain expression, pain aggravating factors, and physical pain experience. The themes that formed part of the model's construct are the psychological pain experience, social pain experience, and coping methods. However, most of the study findings were consistent with those found in the literature.

The findings revealed that participant's low back pain originated from falls during a household activity such as fetching of water and falls due to sporting activities. Others also included road traffic accidents, work activities, prolonged sitting during academic work, and Spiritual factors. Other participants in the study, however, could not mention the exact cause of their pain. The location of pain was at the lower back, and the duration of pain was from four (4) months, seven to eight (7-8) months and ten (10) years and above.

The episode of pain in some patients interviewed lasted between one week to one month, and with others, two (2) to three (3) days. The pain among participants was also inconsistent and unpredictable. The pain quality was found to vary among participants, and they used pain descriptors such as radiating, burning, aching, sharp, stabbing, pinching, piercing, dull, pulling, and numb. A few of the participants did not experience radiating pain. However, the majority had their pain radiating to their necks and legs. Participants rated their pain to be of high intensity, with some rating it at 7-8 on a scale of 0 to 10. The pain intensity varied with time, and the highest intensity was mostly felt at

night. The intensity of pain also resulted in physiological changes such as headache and increased blood pressure of some participants.

The participants expressed their pain verbally and non-verbally. The verbal pain expression was captured as crying, screaming, and complaining. Conversely, the non-verbal pain expression was summed up as refusing to communicate, facial expression (frowning), stretching, and tapping the pain site. The men in this study often accommodated their pain as compared with the women. The men were unwilling to communicate their pain because they did not want to be a burden to their families, complaining to the family brings no solution and the idea of showing that one is a man.

Participants reported that certain activities aggravated their pain intensity, and they include physical stress during home and work activities, body posture such as (bending, walking, standing, and sleeping) and sexual activities. Participants again stated that athletic activity and sneezing aggravated their pain. Few participants in the study could not relate their pain to any aggravating factor. However, participants cited that lying flat on their backs to rest, exercise using assistive devices, and medication helped in reliving their pain. Participants narrated the physical sufferings they went through to keep up with the daily routines and household task.

The pain interfered with participant's daily activity such as teaching, cooking, walking, bathing, washing, climbing stairs, lifting, and carrying children. The study participants also gave up on enjoyed activities, for example, travelling, driving, riding a bicycle, going to the gym, weeding and washing clothing, and playing volleyball. Participants again became easily fatigued when they went about their daily activities like walking and work activities. The participant could also not endure and lost their feelings or interest in sexual activities due to the pain.

Low back pain placed several psychological challenges on participants in this study. These psychological challenges included; anxiety, fear, depression, helplessness, and inability to concentrate. Other psychological challenges include mood changes, negative thoughts, sleeplessness, beliefs and the meaning of pain. Participants related their anxiety to how their pain came, whether their pain will resolve, and when. Participants also became anxious because of their inability to do what they desired. Few participants did not experience any anxiety because they felt the pain was typical. The majority of the participants tend (10) became depressed because the pain hindered them from performing specific daily activities, and three (3) did not experience any depression due to the pain.

Some participants again exhibited fears about death, the outcome of pain, fear of the inability to work, and fears due to medical jargon used by health professionals. Participants also became worried and sad as they could not carry out certain activities. Some participants got worried and sad because everyday activity, such as sneezing, aggravated their pain. Others did not get worried as they felt that there was a solution for their low back pain. Few participants as well exhibited anger toward the pain, themselves, and others. Some also felt irritated due to the pain. Most of the participants experienced helplessness since they could not carry out one activity or the other and had to rely on others for help.

The majority of the participants recounted that they could not concentrate on activities due to the pain. On the contrary, a few of the participants were able to concentrate on tasks despite their pain. Sleeplessness was a key concern for all the participants. Few of the participants could not sleep unless they take medications. Negative thoughts also usurped through the minds of a few of the participants. Contrariwise many of the individuals did not entertain negative thoughts. Participants further held some beliefs about the causes of

their LBP, beliefs about permanency, outcome, and spiritual involvement. All the participants were hopeful of having a better outcome as they deeply depended on God.

The social influence of pain was evident in this study. The pain had effects on how the participants inter-related, socially connected and isolated due to the pain. The pain also affected the participant's work and employment. Concerning coping methods, participants in this study employed both pharmacological and non-pharmacological strategies to cope with their pain. The non-pharmacological methods used included positional changes, ignoring pain, seeking information, the use of supportive devices, physiotherapy/exercise, massage, religious means, and social support.

The pharmacological methods involved mainly medication. Participants in the study used a variety of pain medication in addition to vitamins. However, participants lamented that their pain medications worked to an extent, quickly wears off, and pain resurfaces. For fear of side effects, participants took medications only when the pain was severe and unbearable. Participants had side effects, such as constipation, stomach ulcers, drowsiness, and weight gain. The cost of treatment, health professional’s attitude, and pain meaning also impacted the participant’s LBP experience.

6.2 Implications

This study's findings have implications for nursing practice, management, education, research, and health policy. When addressed, these implications can lead to an improvement in the quality of life of patients living with low back pain.

6.2.1 Implications in nursing practice

The study findings identified the characteristics of pain among patients with LBP as the origin of pain, which suggests the multifactorial nature of low back pain, the location being mainly the lower back, and variation in duration. The pain had varied quality

signifying the different types of pain (nociceptive and neuropathic), which may require different management approaches and varied in intensity. Also, expression of pain, aggravating and relieving factors explored were varied among participants. Additionally, the study also explored the physical pain, psychological pain, and social pain experience. Finally, the study identified coping methods and challenges encountered during the pain experience.

As a result of these findings, health professionals, mainly nurses, who are mostly in close contact with the patients, are encouraged to acquire knowledge of the characteristics of pain and apply it during the assessment and reassessment of pain to achieve optimal pain management. To help realize this optimal pain management, nurses must receive speciality training in musculoskeletal pain management to care for patients with low back pain specifically. Again the appropriate assessment tool should be available for use during the assessment of pain in LBP. Additionally, the physical, psychological, and social impact of the pain experience must be acknowledged, understood, and assessed.

Nurses must acknowledge the use of the biopsychosocial model to ensure comprehensive management of the patient with LBP since the physical, psychological, social experience, and spiritual factors influence patients' well-being. Nurses must also make an effort to understand and assess the patient's meaning regarding their pain since it can influence whether the patient will accept and adhere to the treatment regimen. Furthermore, the sexual concerns of patients should as well be evaluated during assessment and reassessment. Nurses should also evaluate the coping methods used by patients with LBP to ensure adequate pain management. Finally, Nurses are advised to exhibit positive attitudes and have an excellent relationship with their patients to improve pain communication and management.

6.3 Implication on nursing management

Nurse managers at facilities caring for patients with low back pain must ensure regular pain assessment and organization of in-service training to refresh, improve skills, and bring nurses up-to-date with the new pain management trends. Furthermore, nurse managers should toughen their supervisory role to ensure the highest standard of professionalism, discipline, and positive attitudes that will lead to efficient pain management of LBP patients. Nurse Managers are as well encouraged to ensure supportive supervision. Finally, Nurse managers must ensure a well written out protocols on the ward to serve as a guide for assessment and adequate pain management.

6.4 Implication on nursing education

Low back pain is highly prevalent in the population, and it is indicative of the knowledge gap and inappropriate treatment measures. This knowledge gap may have resulted from a lack of speciality in chronic pain areas. Hence health professionals, including nurses, must receive speciality education on musculoskeletal pain including LBP. There should also be the development of a comprehensive curriculum to include pain management and assessment of patients suffering from LBP, ward teaching on LBP, and its management must be ensured. Educating nurses will enhance multidisciplinary pain management of the multifactorial nature of low back pain.

6.5 Implication for future research

The study's finding revealed the impact of health professional attitude, cost of treatment, and pain meaning among LBP patients. Therefore, further studies into this phenomenon are of importance to inform better practice. Again, research into the preparedness of healthcare professionals in identifying and managing patients with LBP is warranted. Also, there is a need for further research into the high prevalence and recurrence of LBP. Additionally, future research with large samples using other study designs such as

quantitative design or both qualitative and quantitative designs is required. This will further improve our understanding of LBP experiences and allow for the generalization of the study findings.

6.6 Implication for policy

The study's findings highlighted the concerns of patients with LBP with regards to the high cost of treatment for LBP. These findings, therefore, suggest the necessity for policy formulation towards a means of financing or subsidizing chronic pain management among LBP patients. This policy formulation must also consider the incorporation of NHIS into routine investigations carried out on patients with LBP. Additionally, the Ministry of Health, in charge of health policy formulation in Ghana, must put a policy regarding context-appropriate management of LBP and ensure its adoption and implementation. There must also be policy interventions by the MOH to make pain assessment an essential component in LBP management. Finally, there must be a policy that ensures the general public's deliberate education on LBP and its impact on people.

6.7 Reflections

Experiences with fieldwork can be quite an overwhelming aspect of conducting research. However, it can, at the same time, be fulfilling and rewarding. Indeed my maiden experience in undertaking fieldwork was enjoyable, but I encountered some challenges during the process. Nonetheless, I learnt some valuable lessons out of those challenges. Three departments within the study setting were designated for the data collection since all handled patients with low back pain. At the first department, I got only a handful of participants who were not that cooperative due to their pain and whose information was not rich enough to enhance data analysis. Quickly, I shifted focus to the other two departments during the subsequent weeks. Although there were also some obstacles, the

researcher recruited many participants who provided rich data on their experiences with low back pain which reflected on the results obtained.

6.7.1 The influence of the study on the researcher

Most times, the data collection process was frustrating and extremely stressful, but I learned to be strong and focused my attention on meeting my laid down objectives. Also, the study opened me up to the iterative nature of qualitative research. I realised that on the field things does not always go smoothly or play out as planned on paper. It became clear to me how important it is to be flexible in the field and adopt different strategies when one strategy proofs futile. The experiences shared by the participants has helped me to modified lifestyles such a prolonged sitting and lack of physical activity as a result of low back pain.

6.8 Limitations of the study

This study included only adult participants in exploring the experiences of pain among patients living with LBP; thus, replication of the study may be limited to other groups of patients suffering from LBP that have the same characteristics as the study sample. Again, the study did not look at the types of pain involved in LBP, which is nociceptive and neuropathic pain, which may have been experienced by the participants. Thus further exploration involving the types of pain will broaden our understanding of this phenomenon.

Additionally, due to the upsurge of COVID – 19 follow up of study participants to reaffirm their responses was impossible. Therefore follow-up was done through Telephonee conversation. Finally, the study took place in only one hospital, although other hospitals in Ghana treat low back pain. Hence further studies involving other hospitals will help broaden our understanding of the phenomenon of low back pain.

6.9 Recommendations

Recommendations were made to various regulatory bodies and the Greater Accra Regional Hospital based on the study's findings.

6.9.1 Nursing and Midwifery Council of Ghana (NM&C)

- The council should re-enforce its regular inspection of nursing training institutions to ensure adequate teaching of low back pain assessment and management in the curriculum.

6.9.2 Ghana College of Nurses and Midwives (GCNM)

- The GCNM should develop a specialist programme in musculoskeletal pain, specifically low back pain, to equip nurses with relevant knowledge and skills to improve practice and manage pain effectively.

6.9.3 Ministry of Health (MOH) and Ghana Health Service (GHS)

- The MOH and GHS, in conjunction with other stakeholders, should take the initiative to lobby for the financing or subsidizing of chronic pain management among LBP patients.

- The MOH and GHS should also lobby to incorporate National Health Insurance (NHIS) into the routine investigations carried out on patients with LBP.

- Additionally, the MOH and GHS should put in place a policy concerning context-appropriate management of LBP and ensure its adoption and implementation.

- The MOH and GHS should also ensure a deliberated education of the general public on LBP and its impact on people, society, and the economy.

- Finally, the MOH and GHS must acknowledge and implement the non-pharmacological treatment of LPB into its service at an affordable cost for all patients with LBP.

6.9.4 Management of Greater Accra Regional Hospital

- Adopt a multidisciplinary approach to pain management among patients living with LBP.
- Regular on the ward training should be organized for staff on pain assessment and pain management to keep staff abreast of skills and knowledge to allow for efficient pain assessment and management of pain among patients suffering from LBP.
- Ensure adequate human and material resource provision that will aid in the multidisciplinary management of pain among LBP patients.
- Establishment of protocols for pain assessment and management, taking into consideration the multidimensional nature of LBP.
- Organize periodic conferences on customer relationships to improve health professional's attitudes towards patients with LBP when accessing care.

6.10 Conclusion

The study explored the experience of patients living with low back pain at the Greater Accra Regional Hospital. A qualitative exploratory, descriptive approach was employed, and 13 participants were interview face-to-face. The study findings revealed that LBP is multifactorial and negatively impacts the physical, psychological, and social well-being of patients, thereby reducing their quality of life. Additionally, the findings indicated that low back occurred mostly in those within the working-age and placed a financial burden on the

individuals as they could not work or retired early from work. Furthermore, the study findings showed that the use of medication in managing patients with low back pain did not adequately treat the pain encountered by participants as such Treatment modalities should also be re-evaluated to come out with treatment that will be more beneficial to low back pain sufferers. Finally, the biopsychosocial model used in exploring the various aspects of the LBP experience among the participants must be adopted and used by all healthcare providers to achieve efficient pain management.

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APPENDICES

Appendix A: Introductory Letter

UNIVERSITY OF GHANA
DEPARTMENT OF ADULT HEALTH
SCHOOL OF NURSING

Ref. No.:.....

SON/A.12

October 3, 2019

The Chairperson
Ethical Review Committee
Ghana Health Service
Accra

Dear Sir/Madam,

LETTER OF INTRODUCTION

This is to introduce to you **Adeline Sarah Hesse-Barkah** (ID: 10701907), an MPhil second year student of the School of Nursing and Midwifery.

The Scientific Review Committee of the School has approved the thesis topic: **"Experiences of Patients Living with Low Back Pain in the Accra Metropolis".**

I hope that the Ethical Review Committee will consider the proposal to enable her collect data.

Counting on your usual co-operation

Thank you.

Yours faithfully,

Professor Lydia Aziato
SUPERVISOR

COLLEGE OF HEALTH SCIENCES

Appendix B: Ethical Clearance

GHANA HEALTH SERVICE ETHICS REVIEW COMMITTEE

In case of reply the number and date of this Letter should be quoted.

Research & Development Division
Ghana Health Service
P. O. Box MB 190
Accra
GPS Address: GA-050-3303
Tel: +233-302-681109
Fax + 233-302-685424
Mob + 233- 050-3539896
Email: ethics.research@ghsmail.com

MyRef. GHS/RDD/ERC/Admin/App
*Your Ref. No.*191597

21st October, 2019

Adeline Sarah Hesse-Barkah
University of Ghana
School of Nursing and Midwifery
P. O. Box LG 43
Legon - Accra

The Ghana Health Service Ethics Review Committee has reviewed and given approval for the implementation of your Study Protocol.

GHS-ERC Number	**GHS-ERC 026/10/19**
Project Title	Experiences of patients living with low back pain in the Accra Metropolis
Approval Date	21st October, 2019
Expiry Date	20th October, 2020
GHS-ERC Decision	**Approved**

This approval requires the following from the Principal Investigator

- Submission of yearly progress report of the study to the Ethics Review Committee (ERC)
- Renewal of ethical approval if the study lasts for more than 12 months,
- Reporting of all serious adverse events related to this study to the ERC within three days verbally and seven days in writing.
- Submission of a final report after completion of the study
- Informing ERC if study cannot be implemented or is discontinued and reasons why
- Informing the ERC and your sponsor (where applicable) before any publication of the research findings.
- Please note that any modification of the study without ERC approval of the amendment is invalid.

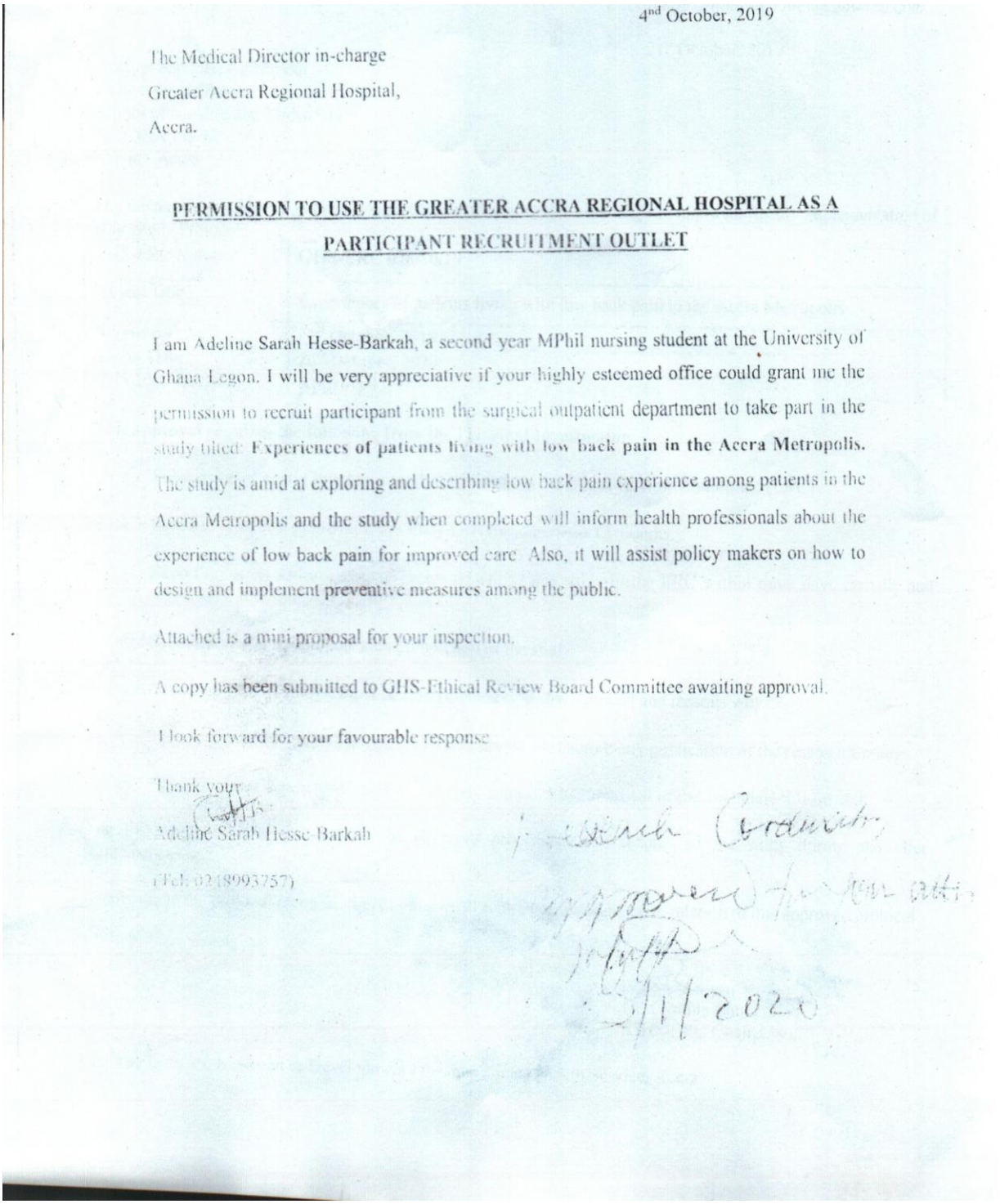
The ERC may observe or cause to be observed procedures and records of the study during and after implementation.

Kindly quote the protocol identification number in all future correspondence in relation to this approved protocol

SIGNED.....
Dr. Cynthia Bannerman
(GHS-ERC Chairperson)

Cc: The Director, Research & Development Division, Ghana Health Service, Accra

Appendix C: Introductory Letter Ridge



4nd October, 2019

The Medical Director in-charge
Greater Accra Regional Hospital,
Accra.

PERMISSION TO USE THE GREATER ACCRA REGIONAL HOSPITAL AS A PARTICIPANT RECRUITMENT OUTLET

I am Adeline Sarah Hesse-Barkah, a second year MPhil nursing student at the University of Ghana Legon. I will be very appreciative if your highly esteemed office could grant me the permission to recruit participant from the surgical outpatient department to take part in the study titled: **Experiences of patients living with low back pain in the Accra Metropolis.** The study is amid at exploring and describing low back pain experience among patients in the Accra Metropolis and the study when completed will inform health professionals about the experience of low back pain for improved care. Also, it will assist policy makers on how to design and implement preventive measures among the public.

Attached is a mini proposal for your inspection.

A copy has been submitted to GHS-Ethical Review Board Committee awaiting approval.

I look forward for your favourable response

Thank you

Adeline Sarah Hesse-Barkah

(Tel: 0248993757)

Appendix D: Consent form

PARTICIPANT'S INFORMATION SHEET

Tile of research: Exploring the experiences of patients living with low back pain at the Greater Accra Regional Hospital

Principal investigator: Adeline Sarah Hesse-Barkah

Address: School of Nursing and Midwifery, University of Ghana

Email: sallhesse@gmail.com

Phone Number: +223248993757

General information about research

I am a second year MPhil (Nursing) student at the University of Ghana, Legon conducting a research in the area aforementioned. The study is for academic purpose and aimed at understanding what people with low back go through. You have been selected to take part in this study, however, you are not forced to do so and have every right to withdraw your consent at any time during the study without any cost. If you agree to take part in this study, your cooperation will be required. You will be given an agreement form and you will have to give your consent by signing or thumb printing the agreement form. You will be involved in a conversation that will occur in English, Twi or Ga and last between 30 to 60 minutes. This interaction will occur at your own time and place of convenience. Again with your permission, the interview will be audio-taped and afterwards written in words. You have the freedom to opt out of the study at any time you deem fit without any risk.

Possible Risks and Discomforts

The risk that you will experience upon taking part in this research is minimal. You may become emotional while talking about what you go through with the pain. If that happen, the researcher will refer you to the clinical psychologist at the counselling unit of the Hospital who will assist in relieving you of your emotions without any financial cost.

Possible benefits

There will be no direct benefit, however, sharing your experience in living with low back pain will assist health workers in understanding what patients with low back pain go through so that they can find better ways of treating them and those who will in the future have low

back pain. Also the findings will help policy makers regarding treatment and preventive measures.

Confidentiality

The interview or conversation will be audio- taped and later written in words exactly as you say it. Your name will not be used rather you will be given identification in place of that. The only people that will be privy to the conversation will be myself and my supervisors. All written information about you will be kept at a separate place from the recorded information for five years after the study and then destroyed. All information regarding the study will be provided and you will be required to sign a consent for to demonstrate your agreement to participate in the study. Also, all informations pertaining to the study and audio recording will be kept on a password protected computer which will be accessible to only me.

Compensation

You will be given snacks as a form of appreciation after the interview session.

Voluntary Participation and Right to Leave the Research

Participating in this study is voluntary. You are free to leave the study at any point. Such withdrawal will not affect the quality of healthcare service you will require from health care providers.

For further clarification on study related issues contact

Adeline Sarah Hesse-Barkah
University of Ghana, School of Nursing
Email Address: sallhesse@gmail.com
Tel: +233248993757

For further clarification on ethical issues contact

The Administrator
GHS-Ethics Review Committee
Nana Abena Kwaa Ansah Apatu
Email Address: ethics.research@ghsmail.or
Tel: +233503539896

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P. O. BOX GP 473
ACCRA

Date

Investigator Statement and Signature

I attest that the participant has been furnished sufficient time to read and learn about the study. All concerns raised by the participant have been clarified and addressed.

Researcher's name and signature

Date

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HOSPITAL, RIDGE – ACCRA
P. O. BOX GP 473
ACCRA

Appendix E: Interview Guide

SEMI-STRUCTURED INTERVIEW GUIDE

Research Title: **Experiences of Patients Living With Low Back Pain in the Accra Metropolis**

Section A: Demographic Information.

Information regarding the background of participants after obtaining their consent to participate in the study. This information will help in further understanding of the individual differences of participants and examination of characteristics of data.

Please tell me about yourself

1. Age
2. Gender
3. Nationality
4. Religion
5. Level of education
6. Marital status
7. Ethnicity
8. Occupation
9. Language spoken

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ACCRA

Section B

1. Please, can you tell me how your back pain started?

   Probes:

   a. Through a fall
   b. Road traffic accident
   c. Through work
   d. Physical exercise
   e. Others
   f. Unknown

2. Please, how will you describe your back pain?

   Probes:

   a. severity
   b. radiating
   c. quality (sharp/dull, piercing, etc)
   d. activities that worsen pain
   e. activities that relieve pain
   f. duration

3. Please, how have you been thinking about your pain?

   Probes:

   a. meaning
   b. belief

4. pleases how has the pain affected your everyday activities ?

   Probes:

   a. mobility
   b. lifting
   c. washing
   d. bathing

5. Can you please describe how you feel living with the pain?

   Probes:

   a. Anxiety/, Depression

b. Mood changes (sad, worry, fear, happy)

c. concentration
d. negative thoughts
e. sleep
f. Anger, irritable
g. helpless

6. Please tell me how the pain has affected your social life?

Probes:

a. Relationship with others (employers, colleagues, friends,)
b. Social network
c. Isolation
d. Sexual relationship

7 . Please tell me how the pain affects your economic life/status

Probes:

a. Work restriction
b. Financial difficulties
- (cost of drugs, physiotherapy, gadgets, hired labour)

8. Please tell me how you have been managing your life with the pain?

Probes:

a. Support
b. Pharmacological (drug dependency, drug abuse)
c. Non-pharmacological
- (spiritual/religion, physiotherapy, massage, activity restriction, using assistive device/gadgets, ignoring pain

9. Please is there anything I have not asked that you would like to tell me?

Appendix F: Personal Characteristics of participants (Demographic Profile)

PERSONAL CHARACTERISTICS

Participant ID	Age	Sex	Marital status	Occupation	Educational level	Ethnicity	Religion
P1	34	Female	Married	Teaching	Degree	Talan	Christian
P2	56	Male	Married	Lecturing	PhD	Akan	Christian
P3	52	Male	Married	Driving	Jhs	Krobo	Christian
P4	41	Male	Single	Reflexiologist	Degree	Ewe	Christian
P5	31	Male	Married	Accounting	Masters	Manprosi	Christian
P6	30	Female	Single	Business Administrator	Degree	Akuapem	Christian
P7	49	Female	Married	Accounting	Masters	Ewe	Christian
P8	44	Female	Ewe	Housewife	Degree	Ewe	Christian
P9	55	Male	Married	Accounting	Masters	Ewe	Christian
P10	47	Female	Married	Nursing	Degree	Fanti	Christian
P11	45	Male	Married	Entrepreneur	Masters	Ewe	Christian
P13	46	Female	Married	Housewife	Jhs	Krobo	Christian
P13	62	Female	Married	Trading	Elementary School	Ewe	Christian